WORKING CAPITAL MANAGEMENT AS A TOOL FOR COST MINIMIZATION AND PROFIT MAXIMIZATION

(A CASE STUDY OF ANAMBRA MOTOR MANUFACTURING COMPANY ENUGU).

BY

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ACC/2009/527

DEPARTMENT OF ACCOUNTANCY

FACULTY OF MANAGEMENT AND SOCIAL SCIENCE
CARITAS UNIVERSITY AMORJI-NIKE, ENUGU

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A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF ACCOUNTANCY FACULTY OF MANAGEMENT AND SOCIAL SCIENCE CARITAS UNIVERSITY AMORJI-NIKE ENUGU, ENUGU STATE

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF BACHELOR OF SCIENCE (B.Sc) DEGREE IN ACCOUNTANCY

AUGUST 2013

CERTIFICATION

I certify that this work was carried out by Irabor Jennifer Iziegbe in the department of Accountancy, Caritas University.

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Irabor Jennifer Iziegbe   Date

APPROVAL PAGE

We have reviewed this work and are satisfied that it meets the partial fulfillment of the requirement for the award of Bachelor of Science (B.Sc) Degree in Accounting of Caritas university, Amorji-Nike, Enugu State.

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MR. JAMES UGWU DATE

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HEAD OF DEPARTMENT

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EXTERNAL EXAMINER DATE

DEDICATION

I dedicate this work to God almighty the only one who knows the beginning and the end.

ACKNOWLEDGEMENT

I wish to express my profound gratitude to God almighty that has seen me through all these hurdles.

I am also grateful to my lecturers especially my project supervisor Mr. James Ugwu for tutoring me and also his support and encouragement throughout the period of writing my project work Dean of management Prof. C.C Ume, head of department Dr. Fank Ovute for his support, Mr Ubani for encouraging me during my project writing, Prof. Nwadialor for being a very good lecturer, and Mr. Enekwe for also been supportive and a good lecturer.

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ABSTRACT

The objective of this research work contains working capital management as a tool for minimization and profit maximization with particular reference to Anambra motor manufacturing company, Enugu. The research design used was the survey method and the sources of data were both primary and secondary. The primary sources were interviews granted to me while the secondary sources of data were obtained from related literatures viz text books, internet, journals by different authors. Primary sources were from interviews and questionnaires. The data, Hypotheses were tested using chi-square. From the researchers findings, it is seen that profitability of a firm depend on the level of its working capital management. Although working capital management is creating problems in today's business environment due to global developments of science and applied in business but ANAMMCO tries here best and maintained her liquidity position. The researcher would recommend that seminars and workshops be organized for the staff and management of the company on the effect and merits of effective and efficient working capital management.

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CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Capital can be classified into two broad categories based on tenure viz. long term and short term capital.

The long term capital of firms is committed to investment in fixed assets. It includes shareholders' funds and long term loans. On the other hand, short term capital is applied for investment in current assets such as cash, marketable securities and short- term credits. Current assets are usually acquired very often in varying quantities depending on the demand structure for the firm's product. Each time a decision to acquire current assets is taken, finance becomes inevitable.

However, it does not necessarily mean that cash has to be paid each time an order for recurrent production input is placed, rather it implies that just like in the case of fixed assets, every decision on current assets has financial implications. For instance, a firm has to decide how much of the material used for production of goods and services are to be on credit or on cash and carry basis. it also has to determine what proportion of its sale has to be on credit. Also both the optimum and minimum stock levels for raw materials and work-in-progress (WIP) have to be determined and maintained at a given point in time.

Orjih (2001:85) refers to working capital as a firm's investment in short –term assets cash, marketable securities, trade debtors and stock, less current liabilities used to finance the current assets. He stated that working capital management therefore means the planning and controlling of both current asset and current liabilities. It involves the administration of cash receivables, inventories, marketable securities and the current liabilities.

He also discussed the two aspects of working capitals the "gross working capital: This means that the firm's investment in current assets. Current assets are those which can be converted in to cash within an accounting year and they

Include cash, short term securities, and debtor's bills receivable and stock. Net working capital- this refers to the difference between current assets and current liabilities. Current liabilities are those of outside is which are expected to mature for payment within an accounting year.Net working capital can be positive or negative. It is positive when current assets exceed current liabilities and negative when current liabilities exceed current assets.

Davidson (1984:401) defined “working capital as “current assets less current liability”. He also defined it as “circulating capital”.

Weston &Brigham (1977:142) defined working capital management as “management decision on the amount of capital invested in various current assets and how this investment is to be financed”. It is fundamental and of great importance to a business as it enables the organization conduct its activities from free financial embarrassment.

Working capital management also aids the management to avoid the losses consequent upon incurring commitments below or above its capacity in ordinary course of business.

Retrof (1982:249) said that a firm should always maintain a sound working capital position for it to have enough to run its business activities. Both excessive as well as inadequate working capital position are dangerous from firm's view point.

Excessive working capital means idle fund which means no profit for the firm, while inadequate working capital renders the firm unable to avail attractive credit opportunities and drastic reduction in the rate of return on total investment. The firm losses its reputation and capital base could be eroded, there by affecting the organizations credit worthiness.

Just as blood is life wire of any human being, the working capital of any company is the pivot around which its day-to-day operations revolve. it cuts across all departments and functions of an organization to the extent that all the organizational activities would ground to a halt of the working capital were not properly managed.

Therefore, the need for a sound and realistic working capital policy for a manufacturing from like Anambra Motor Manufacturing Company (ANAMMCO) becomes imperative

A BRIEF HISTORY OF ANAMMCO

The Anambra motor manufacturing company (ANAMMCO) was incorporated in 1977 as a private limited liability company. It was established in line with a joint venture agreement which the government entered with Daimler Benz Ag of Germany, now Daimler chyler AG (DCH) of Germany as the technical partners. The shareholding structure is presented as follows in table below:

Table 1: shareholding structure of Anammco

Shareholder's	**percentage**(%)
Daimler	40
Federal ministry of finance incorporated	35
Other investors	25
	100

Source: National council on privatization secretariat bureau of public enterprises investment opportunities in Nigeria Auto motive industry.

According to the term agreement, the plant is to assemble/ manufacture Mercedes Benz brands of trucks and buses of different models and capacity.

The joint venture agreement provided some protection of the company through import restriction.

The company was to assemble commercial trucks and buses with payloads of 2.5 tons and above. The company started production of vehicles with pay load of 5 tons and above. The plant was commissioned on July 8, 1980 with actual production starting in 1981.

It has an installed capacity of assembling 750 vehicles per annum on all a single shift.

The plant is located at Enugu and preliminary inspection inspection revealed that the facilities were in good technical condition, which indicated a high standard maintenance. This actually reflected in the award to the company of 1509001 certificate for total quality management.

Anammco is the second surviving vehicle plant in the country. It is producing at 10% of its installed capacity as clearly indicated in the company's appendix 1.

1.2 Statement of The Problem

The present world economic hazard coupled with economic policies being operated in the nation has led to a situation where many business organizations have to fold up. Others barely survive by thriving on very lean financial and material resources. This is due to the mere fact that procurement of capital to finance their daily operations is increasingly becoming difficult. However, the efficient management and control of working capital can generate a considerable amount of internal financing.

The project topic seeks to analyze the Anambra motor manufacturing company's (ANAMMCO) working capital and its segment. The study uses ration analysis as a measure of efficiency of working capital management. The topic will equally determine the extent to which the profitability of the company is dependent on the level of its working capital management, using the percentage ratio measurement.

1.3 Purpose of The Study

The objective of any study undertaken is to contribute to the development and growth of its case study. The purpose of this study includes:

a) To show how working capital management can affect the profitability of the company.

B) To examine the contribution made by the working capital management on the activities of a manufacturing company, with particular reference to ANAMMCO.

C) To illustrate the ways in which working capital management can be used as a tool for cost minimization.

D) To recommend where necessary and appropriate alternative working capital management technique practical and procedure to ANAMMCOs top officials.

1.4 Significance of The Study

This work, working capital management as a tool for cost, minimization and profit maximization will assist biz organization on their operations and enable them to formulate a working capital management that is suitable for their business environment in order to optimize the profit of their operations.

It is hoped that factors that defy the smooth operation of the company in an area of working capital will be identified. This will go a long way to aid the management in future planning of an ideal working capital management. Finally, it is hoped that recommendations of this work would be of great importance to the other manufacturing companies that may adopt them to suit their goals. This research work also intended to provide a base for further researches inthe area of working capital management, the government will benefits as efficient and effective working capital will bring about increase in profits which is taxable, and can also be used for expansion and employment criteria.

1.5 Research Questions

1 How does working capital management contribute to the activities of a manufacturing organization?

2 Does working capital management affect the profitability of a manufacturing concern?

3 Does working capital management lead to cost minimization in an organization?

4 What are the alternative working capital management techniques?

These questions when answered will show how well working capital management contribute s in serving as a tool for cost minimization and profit maximization in ANAMCCO.

1.6 Statement of Hypothesis

In other to determine the contribution, efficient working capital management had made towards the performance and growth of the company, it is important to test the following hypothesis:

H_0: The profitability of a company does not depend on the level of company's working management capital.

H_1: The profitability of a company is dependent of the company's working capital management.

H_0: Working capital management is not a tool for management control in a business concern.

H_1: working capital management is a tool for management control in a business concern.

H_0: Ineffective working capital management has no effect on production.

H_1: Ineffective working capital management is the cause of inefficiency in production.

1.7 Scope of the Study And Its Limitation

In the process of conducting this research topic, the researcher's examination will only be concentrated on the case study of ANAMMCO. This research work will cover working capital management. The researcher intended as much as possible to conduct an adequate researcher but could not be achieved due to some constraints. Based on the developing nature of the nation's economy and high demand of adequate working capital, there is every indication that there are constraints to the validity of the conclusion reached.

This study is limited by certain constraints required to write of, the cost incurred in making this project a success. Such limitations are as follows.

1) Lack of fund required to cover the cost of transportation, materials for working and typing the project and binding it.
2) Time factor: the time allotted for the completion of this study is too short for more objective of the results. An extension of the time given should be encouraged. The researcher is suggesting that project topic should be approved for the writer starting from the first semester of the academic session.
3) Co-operation from the staff of the company: The researcher, if not for the help of friends and well the company and libraries could have been so difficult. The management and staff thought that the researcher was about to carry out espionage to other competitors. It took the researcher some time to convince the management that the research is strictly for academic purpose.
4) Lack of exeat to leave school for research materials and to make more enquires.

1.8 Definitions of Terms

The following terms are defined in the contexts which are used in this research work:

1 Working capital management: This refers to the administration of current assets and current liabilities.

2 Working capital: Excess of current asset over current liabilities. It is also defined as capital available for day- to – day operations.

3 Current Assets: cash and other assets that are expected to turn into cash if sold or exchanged within the normal operating cycle of the firm usually one year.

4 Current liabilities: A debt or obligation that must be discharged within one year.

5 Gross working capital: This means that firms investment in current assets.

6 Net working capital: This refers to the difference between current assets and current liabilities.

7 Liquidity: Refer to the available of cash or near resources for meeting company's obligations.

8 Profitability: Accounting for profit relation to asset used in business operation.

9 Cash flow: cash receipt less disbursement from a given assets or group of assets for a given period.

10Effectiveness: This is the extent to which a predetermined goal or objective is achieved.

11Efficiency: The extent to which inputs are used in relation to a given of output.

12Re-order time: The time at which new stock is due for procurement.

13 Economic Order quantity: This is the optimum order quantity for an item of stock, which will minimize cost.

14 Spontaneous financing: Sources of financing that arises from ordinary business transaction.

15Accounting: net liquid assets computed by deducting current liabilities from current assets.

16Working capital is the cash available for day to day operations of an organization. One borrows cash to be able to buy assets or to pay for obligations.

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CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Working Capital Management and Its Significance To The Firm:

2.2 Definitions.

The level of working capital on organization should maintain in order to maximize its profit has been the focus of many writers for the past few years.

There are two aspects of working capital; the gross concept and the net concept.

Orjih (2001:85) states that gross working capital means the firm's investment in current assets while net working capital refers to the difference between current assets and current liabilities.

Davidson (1984:401) states that working capital is current assets less current liabilities. He also referred to it as circulating capital.

Weston and Brigham (1977:143) had the opinion that working capital denotes the excess of current assets over current liabilities. He went on to say that this excess is sometimes referred to as net working capital because some business men consider current assets as working capital.

Weston and Brigham also said that working capital management is management decision on the amount of capital invested in various current assets and how this investment is to be financed. He continued and said that working capital management involves all aspect of administration of current assets and current liabilities.

Investopedia explains working capital as current assets less current liabilities. This ratio indicate whether a company has enough short term assets to cover its short-term debt. Anything below 1 indicates negative working capital. While anything over 2 means that the company is not investing excess assets. Most believe that a ratio between 1.2 and 2.0 is sufficient. Also known as “Net Working capital, or the “Working capital ratio”.

Investopedia also explains working capital: if a company’s current assets do no exceed its current liabilities, then it may run into trouble paying back creditors in the short term. The worst case scenarios bankruptcy. A declining working capital ratio over a longer time period could also be a red flag that warrants further analysis. For example, it could be that the company is sales volumes are decreasing and, as a result, its accounts receivables number continues to get smaller and smaller. Working capital also gives investors an idea of the company's underlying operational efficiency. Money that is tied up in Inventory or money that customers still Owen to the company cannot be used to pay off any of the company's obligations. So, if a company is not operating in the most efficient manner, it will show up as an increase in the working capital from one period to another; collection may signal an underlying problems in the company's operation.

Pandey(2004:326) emphasized that the two concept of working capital gross and net are not exclusive rather they have equal significance from management point of view. The gross working capital concept focuses attention on two concept of current assets management: optimum investment in current assets and financing current assets.

The net working capital is a quantitative concept. It indicates the liquid position of the firm and suggests the extent to which working capital needs may be financed by.

The working capital represents the money required for the purchase of raw materials, payment of salaries, wages and other expenses. It is also for financing the interval between the date of supply of goods and the date of receipt of payment. It has been emphasized that the firm should maintain a sound working capital position and there should be optimum investment in working capital.

SBA. Gov states that working capital is defined as the difference between current assets and current liabilities. Current assets are the most liquid of your assets. Meaning they are cash or can be quickly converted to cash. Current liabilities are any obligations due within one year. Working capital measures what is left over once you subtract your current liabilities from your current asset, and can be a positive or negative amount. The working capital is available to pay your company's current debts, and represents the cushion or margin of protection you can give your short-term creditors.

Weston and Brigham said working capital management refers to the administration of all aspect of current assets, namely: cash, marketable securities, debtors, inventories and current liabilities.

This is an important aspect of financial manager's function since it requires much of his time and more so, as working capital represents a large portion of the firm's investment in assets.

2.3 Importance of Working Capital Management

There are many aspect of working capital management which makes it an important function of financial management, western and Brigham.

Working capital requires much of financial management time. Empirical observation show that financial manager have to spend much if their time on daily internal operations relating to current assets and current liabilities of the firm. As a result of this, it is necessary to manage capital in the best possible ways to get maximum profit.

Working capital represents a large portion of the total investment in assets .characteristically current asset represent more than half of the total assets of business firms. Since they represent large investment and this investment tends to be relatively volatile, current assets are worthy of financial managers careful attention.

Alessandro Lannuzziposted March 8th, 2013: A working capital is the cash available for day today functions of a business. It is the cash that can be used to foot expected and unplanned expenses. Good working capital management will secure a company's financial stature and help build its business. It is necessary for increasing earnings and makes it easier to get business loans and attract potential investors. The main aim of working capital management plan is to balance current assets against liabilities. It helps companies maintain planned expenses like salaries and short term financial obligations.

BBI students Network states the importance of working capital management stems from the following reasons:

1. Investment in current assets represents a substantial portion of the total investment.

2. Investment incurrent asset and the level of current liabilities have to be geared quickly to change in sales, which helps to expand volume of business

3. Gives a company the ability to meet its current liabilities.

4. Take advantage of financial opportunities as they arises

Furthermore, the need for working capital is directly related to sales growth. As sales grows, the firm need to invest more on inventories and book debts.

2.4 The Need for Working Capital

The need for working capital in an organization cannot be over emphasized. There is no way a firm can operate or grow without a sound working capital.

Therefore, the more a firm progresses, the more the need for its working capital.

Mbachu (1990:288) said that the fundamental concept is assessing the working capital need of an organization and her sales activities. The normal operating cycle is referred to as the time required for cash to be converted into inventory. Inventory into receivable cash, In assessing the working capital need of an organization, Mbachu further said that the operating cycle , the more financial resources the organization needs. He also said that working capital management involves keeping the operating cycle for manufacturing firms longer than that of marketing firms.

BBI. Co. In BBI Students Network states that a firm needs working capital because the production, sales and cash flows are not instantaneous. The firm needs cash to purchase raw materials and pay expenses, as there may not be perfect matching between cash flows and outflows. Cash may also be held up to meet future exigencies. The stock of raw materials are kept in order to ensure smooth production and to protect against the risk of non-availability of raw material. Also stock of finished goods has to be maintained to meet the demand of customers on continuous basis and sudden demand of some customers. Businessmen today try to keep minimum possible stock as it leads to blockage of capital. Goods are sold on credit for competitive reasons. Thus, an adequate amount of funds has to be invested in current assets for a smooth and uninterrupted production and sales process. Because of the circulating nature of current assets it is sometimes called circulating capital.

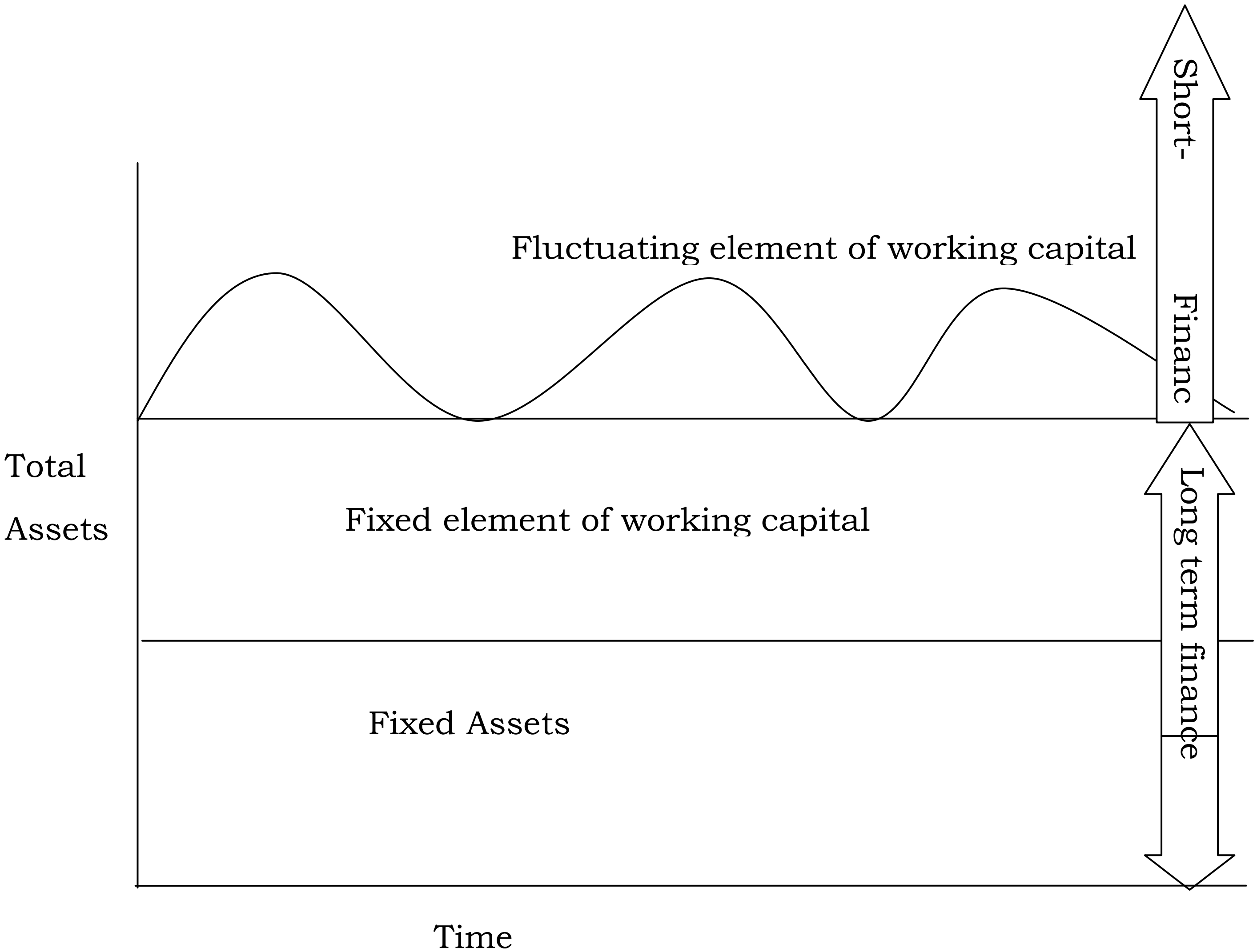
Jim Riley states that working capital needs also fluctuate during the year. The amount of funds tied up in working capital would not typically be a constant figure throughout the year. Only in the most unusual of businesses would there be a constant need for working capital funding. For most businesses there would be weekly fluctuation. Many business operate in industries that have seasonal changes in demand. This means that sales, stocks, debtors, etc would beat higher levels at some predictable time of the year than at others.

In principle, the working capital need can be separated into two parts.

A fixed part, and

A fluctuating part.

A fixed part is probably defined in amount as the minimum working capital requirement for the year. It is widely advocated that the firm should be founded in the way shown in the diagram below



The more permanent needs should be finance from fairly permanent sources; the fluctuating elements should be fiancés from a short-term source, which can be drawn on and rapid easily and at short notice.

ANAMMCO would have a long operating cycle and consequently there would be much work in progress and finished goods. It should be noted that operating does not give the amount of capital need but serves as a useful indication of efficient utilization of resources.

By using relationship between sales and the relevant items of working capital, an estimate can be obtained of working capital required to finance a given levels of sales. The only problem here is that of estimating the satisfactory level of working items required.

2.5 Components of Working Capital

Current Assets

Davidson (1984:41) defined current assets a cash and other assets that are expected to be realized on cash or sold or consumed during the normal operating cycle of business, usually one year. The operating cycle refers to the period of time that elapses for a given firm during which cash is converted into saleable goods or services.

Included in the current assets are cash, makeable securities, held for short-term account and notes receivable inventories of merchandise, raw materials, work in progress, finished goods and prepayments are current assets in that they were paid in advance, then current assets would be required within the next operating cycle to acquire those services. Management of current assets involves the problem of determining the optimum level of investment in each asset.

Breadey & Meyers (1981:766) Maintained that one important current assets account receivable. When one company sells goods to another company or a government agency it does not usually expect to be paid immediately.

These unpaid bills or trade grader make up the bulk of account receivable. Companies also sell goods on credit to the final consumers. This consumer credit makes up the remaining of accounts receivable.

Another important current assets is inventory. Inventory may consist of raw materials, work-in-progress and finished goods awaiting sale and shipment. Firms invest on inventory. The cost of holding inventory include not only storage cost and risk of spoilage or obsolescence but also the opportunity cost of capital that is the rate of return offered by other equipment risk investment opportunities. The benefits of holding inventory are often indirect. For example a large inventories of finished goods reduces the chance of "stock out if demand is unexpectedly high. A producer holding small finished goods, inventory is more likely to be caught short, unable to fill orders prompts. Similarly large inventories of raw materials reduce the chance that an unexpected shortage would force the firm to short down production or use a more costly substitute material.

Bulk orders of raw material lead to large inventories but may be worth while of the firm can obtain lowers prices from suppliers, (that is bulk orders may yield quantity discount). Firmware often willing to held large inventories of finished goods for similar reasons. A large inventory of finished goods allows longer, more economical production runs. In effect, the financial manager give firm a quantity discount.

The task of inventory management is to assess these benefits are cost and to strike a sensible balance. In manufacturing companies, the production manager is best placed to make this judgment.

The remaining current assets are cash and marketable securities. The cash consist of currency, demand deposits (Funds in checking accounts). The principal unsecured notes sold by other firms). Other securities include entreasure bills, state and local government securities. In choosing between cash and marketable securities, the financial manager face the task like that of the production manager. There are always advantages to hold large "Inventories" of each. They reduce the risk of running out of cash and having to raise more on short notice on the other hand, there is a cost to holding idle cash balances instead of putting the money to work in marketable securities

Brookinton (1983;254) Said that investment in inventories by most companies, usually substantial and in general account for about one-third of total assets. For these reasons, proper inventory planning is very important and normally forms part of the budgetary process.

Horne (1977:468) Said that the optimal level of Inventories should be judged to the flexibility inventories afford. If we hold constant the efficiency of inventory management, the lower the level of inventories the lesser the flexibility of the firm. In evaluating the level of inventories, management must balance the benefit of economic of production, purchasing and increased demand against the cost of carrying the additional inventory. If particular concern to the financial manager is the cost of funds invested in inventory. Which is function of the risk of specific inventories involved.

The question of managing inventories arises only when the company holds inventories. Maintenance of inventories involvesting down the company's fund. If it is expensive to maintain inventories why then do companies hold inventories?

Starr and Miller (1982:17) Maintained that there are three motive for holding inventories and they include

1. The Transaction Motive: This emphasizes on the need to maintain inventories to facilitate smooth production and sales operations.

2. The Precautionary Motive: This necessitate holding of inventories to guard against the risk of Unpredictable change in demand and supply forces as well as other forces.

3. The Speculative Motive: This motive influences the decision to increase or reduce inventory level to take advantage of price fluctuations.

In the context of inventory management, the firm is face with the problem of meeting two complicity needs, stated Pundey (2004:394)

1. To maintain a minimum investment on inventories to maximized profitability. The aim of inventor of management should be to avoid excessive and inadequate level of inventories and to maintain sufficient inventory for the smooth production and sales operations. Efforts should be made to place a norden at the right time with the source to acquire the right quality at the right price.

2. To maintain a large size of inventory for the efficient and smooth production sales operations.

In managing inventories, the objective should be in consonance with wealth maximization principle. To achieve this the firm should determine the optimal level of inventory.

a) How much should be ordered?

b) When it should be ordered?

The first question how much should be ordered relates to the problem to determine the economic order quantity (EOQ) and is answered with and analysis of the cost of maintaining certain level of inventories.

The second question, when it should be ordered arises because of uncertainly and is a problem of determining the order point.

Economic order Quantity (EOQ) is a technique used to resolve the quantity decision.

Hangreen and Faster (1988:583) stated that EOQ division mode focuses on the trade off between ordering cost and carrying cost. The EOQ therefore requires the isolation of those costs which will affect the quantity decision.

These cost are:

1. Associated cost of carrying enough inventories which means orders for few stock have to be placed more frequently. Examples of such ordering constsare cost quantity discount, extra training and handling charges, cost of sales etc.

From the above, it will be clear that attempt at reducing carrying costs would automatically result to increasing ordering cost. What EOQ does therefore it to help arrive, at the right quantity to buy or produce and ordering costs are at minimum that is to say where marginal cost of carrying a unit of material inventory equals the marginal cost of ordering that units in a given period. This is shown graphically in the table below

Determination of Optimal Investment in Inventory

Table III

The costs that decline with higher inventories designated by the declining curve, those that rise with larger inventories are designated by the rise curve. The total cost curve is the total of the rising and decline curve and it represents the total cost of ordering the holding inventories. At the slope of rising curve, is equal to the absolute value of declining curve (that is where marginal rising cost are equal to marginal rising cost. The total cost curve is at a minimum. Those represents the optimal size of investment in inventory.

In order to demonstrate EOQ, the following assumptions are made

EOQ: Economic order quantity

F – Fixed cost of placing and receiving order

U – Annual usage in Units

C- Carrying cost expressed as a percentage of inventory value.

P- Purchasing price per unit of inventory

The lowers total of inventory would be found where marginal cost are equal and is given by the formula

$$EOQ = \sqrt{\frac{2fu}{cp}}$$

Making the time for ordering decision requires a determination of the appropriate level to which material stock have to fail before new orders are placed also by implication, the appropriate keeping of records to disclose this point. Often, this may mean effective monitory and control but because there is always time lag between when new orders are placed and when actual deliveries are made by suppliers. It is necessary to make some moves in advance in order to avoid stock-outs and disruption of production. While lead tie is the time lag between new orders and deliveries. Re-order, which take into consideration the safety, stock level, lead-time and rate of stock usage during the lead-time. The re-order level time is then far reached when stock on hands and quintiles due from suppliers are equal to the lead-time usage quality was the safety stock quality.

According to Brookinton (1983:256), A proper system of stock control will have the following elements".

1. **Physical Security of Stock:** Stock should be properly stored in a lockable sector, controlled by a responsible storekeeper. Security will include such things as dry storage from dump and safe containment of poisonous or inflammable stocks

2. **Diversified Control of Stock Ordering and usage:** Usage of stock should be authorized by works personnel, issue and receipt by store personnel, buying by the purchasing officer and payment by the Accountant or Accounting department. This built in check and double check will make error or fraudless.

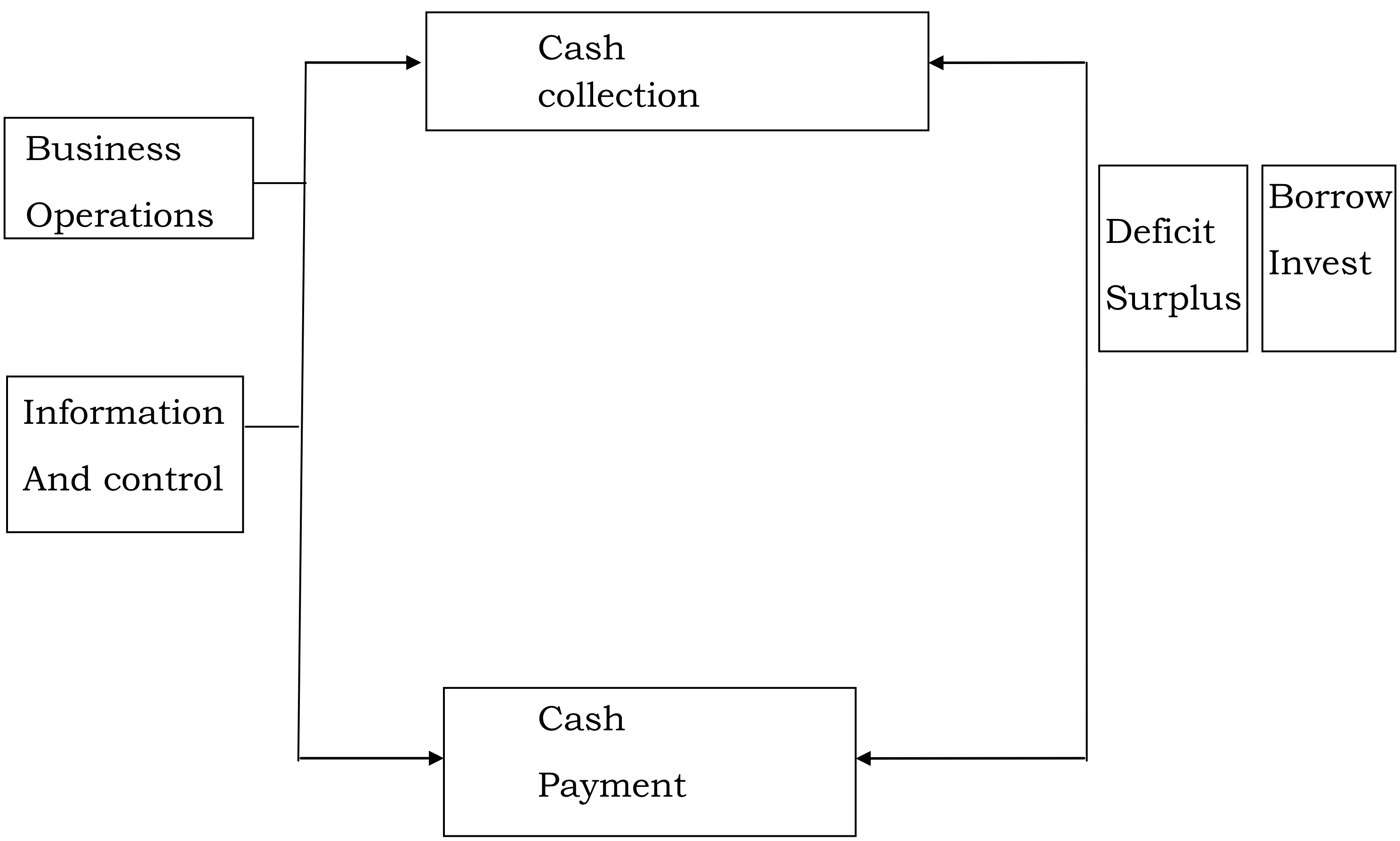
3. Careful Documentation on all Stock Movement and Stock Levels: Only in this way can proper information be obtained for stock control and other purposes cash management is concerned

with the planning and controlling of cash flows into and out of the firm (cash flows within the firm and cash balance held by the firm at a point in time for financing deficit or investing surplus of it).

Cash management cycle can be illustrated in figure blow:

Table IV

Cash Management



When a firm makes it sales, it generates cash, which has to be disbursed out. The surplus cash has to be invested while deficit has to be borrow it is the objective of effective cash management to accomplish the cycle at a minimum cost.

The firm has three motives for holding liquid assets. The transaction motive, the precautionary motive and the speculative motive. Our concern is the only first tow of those motives. In the management of cash, we should attempt to accelerate collections and handle disbursement so that maximum cash is available. Collection can be accelerated by means of concentration. Banking, a lock-box system and certain other procedures. Disbursement should be handled to give maximum transfer, flexibility and optimum timing of payments, being mindful, however, of suppliers relations. Several methods for controlling disbursement were described. Electronic fund transfers are becoming increasingly important and most operation use such transfer in one way or the other.

Its total level of assets being comprised of cash and marketable securities, the firm must determine the optima split between these assets. The optimal level of cash, which inturn determines the optimal level of marketable securities, is the greater of

1. The compensating balance requirement of a commercial bank and

2. The optimal level determined by a appropriate model

The first constraint is rather straight forward with respect to the second constraint the optimal level of cash depend upon the predictability of future cash flows, their volatility, the fixed cost of a security transaction, the carrying cost of holding cash, that is, the interest rate for gone on marketable securities. Several models were examined for determining an optimal level of average cash balances under varying assumptions as to the predictability and pattern of future cash flows.

The firm can invest in marketable securities. Those securities can be evaluated in relation to their difficult risk, marketability, maturity, coupon and taxability. Depending upon the cash flow pattern of the firm and other considerations a portfolio can be selected in keeping with these characteristics. Specific securities, considered include treasury securities, repurchase agreements, government agency securities bankers acceptances, commercial papers, certificate of deposit, Eurodollars and adjustable rate preferred stock. Because these securities do not offer the diversification that common stock do, managing the marketable securities, portfolio is quite different from managing one comprised of common stock.

Optimum Cash Balance

Brealey and Myers said that cash provides liquidity but it doesn't pay interest. Securities pay interest but you can't use them to buy things. As a financial manager won't hold cash up to the point where the marginal value of liquidity is equal to the interest that could be earned on securities. Cash is one of the raw materials that you can need to do business. It is expensive keeping your capital tied up in large inventories of raw materials when it could be earning interest. Why do you hold inventories at all? Why not order materials as and when you need them? The answer is that it is also expensive to keep placing many small orders. You need to strike a balance between holding large inventory of cash (and loosing interest on the money) and making too many small adjustments to your inventory (and incurring additional administrative costs). If interest rates are high, you want to hold relatively small inventories of cash. If your cash needs are available and your administrative costs are highly, you want to hold relatively small inventories of cash. If your cash needs are available and your administrative costs are high, you want to hold relatively large inventories. If the securities are not easily sold, you have the alternative of borrowing to cover a cash deficiency. Again, you face a trade off. Since bank charges are high (Interest on borrowing) your want to keep sufficiently large liquid funds so that you don't need to keep borrowing. On the other hand by having large liquid balances, you are also not carrying the maximum return on cash.

The cash shown in the company's ledger is not the same as the available balance in your bank account. The difference is the net float. When you have written a large number of cheques awaiting clearance, the available balance will be smaller. If you can predict how long it will take cheques to clear, you may be able to pay the float and get by on smaller cash balance. You can also manage the float by speeding up collections and lowing down payments. One way to speed collections is to use concentration banking. Customers make payments to a regional office, which then pays the cheques into a local bank account. Surplus funds are transferred from the local account to a concentration bank. An alternative technique is lock-box banking. In this case customers send their payments to a local post office box. A local bank empties the box at regular intervals and clears the cheques

Banks provide many services. They handle cheque, manage lock-boxes, provide advice and obtain references and so on. Firms either pay cash for these services or pay by maintaining sufficient cash balances with the bank.

In many cases, you may want to keep some what large balances than are needed to pay tangible services. One reason is that the bank may be a valuable source of ideas and business connection. Another reason is that you may use the bank as a source of short-term funds. Leaving idle cash in your bank account may be implicit compensation for the willingness of the bank to stand ready to advance credit when needed. A large cash balance may therefore be good insurance against a rainy day.

In management of receivables, trade credit is the most prominent force in modern business. Trade credit is an important marketing tool acting as a bridge for movement of goods through production and distribution stages to customers finally. As substantial amount are tied up in trade debtors, it needs carful analysis and proper management.

Weston and Brigham (1977:182) suggest that the level of accounts receivable is determined by

1. The volume of credit sales and

2. The average period between sales and collection

The average collection period is partially dependant upon economic conditions during a period of extremely tight money, customers may be forced to delay payments. It also depends on a set of controllable factors or credit policy variables. The major policy variables in the management of account receivable include Standard credit period discount and collection policy.

If a firm makes credit to only the strongest of customers, it will never have debt losses and it will not incure much in the way of expenses for the credit department. On the other hand, it will probably be loosing sales and profit forgone on these lost sales would be far greater than the cost it has avoided.

Determining the optimal credit standard involves equally the marginal cost of credit to the marginal profit on the increased sales. The term of credit specifies the period for which credit is excluded and discount if any given for early payment. If firm's credit term to all approved customers are stated " 2/10 net 30", then a two (2) percent discount from the stated sales prices is granted if payment is made within ten (10) days and the entire amount is due in thirty (30) days from the invoice date, if the discount is not taken. But if the bill is stated "net 60, this indicates no discount is offered and the bill is due and payable sixty (60) days after the invoice date.

The effect of granting cash discount may be analyzed similarly to the credit periods. For example if a firm changes its term from "net 30" to "2/10" net 30", it will attract customers who want to take discount thereby increasing gross sales. Also the average collection period will be shortened as some old customers will pay more promptly to advantage of discount affecting these benefits, if the cost of discount taken. The optimal discount is established at the point where costs and benefits are exactly off setting.

Lengthening the credit period stimulates sales, but there is a cost of tying up funds in receivable. Determining the optimal credit period involves locating that period when marginal profit on increases sales are exactly offset by the cost of carrying the higher amount of account receivables.

Collection policy refers to the procedures the firm follows to obtain payment of the pasture accounts. The collection process can be expensive in terms of belt out of pocket expenditure and lost goodwill. Again, a balance must be struck between the cost and benefits of different collection polities.

There is a close relationship between cash and marketable securities. Firms sometimes report sizeable amounts of such short-term marketable securities as treasuring bills or bank certificates of deposits among their current assets. Therefore, the investment in marketable securities should be properly managed.

The two reasons for holding marketable securities where discussed by Weston and Brigham

a. As a Substitute for cash

b. As a temporary investment.

Some firms hold part folio of marketable securities view of large cash bancs: liquidating part of the portfolio to increase the cash account when cash outflows exceeds in-flows. Most firms themselves are borrowing to meet temporary cash shortage.

1. Temporary Investment

In addition to using marketable securities as a buffer against cash shortage, firms also hold them on a seasonal operations. For example, frequently having surplus cash flow during part of the year, difficult cash flow during the other months. Such firms may purchaser marketable securities during their surplus period and then liquidate them when cash deficient occurs

Panday (2004:370-71) Said that a firm can invest excess cash in many types of securities thus choosing among alternative securities. The firm should examine three basic features of a security: Safety maturity and marketability

a) Safety:- The firm's liquidity portfolio is generally held for a specific known need. if is should depreciate in value, firm will be financially embarrassed. Accordingly, the marketable securities portfolio is generally confused to securities with minimal risk of default. However, the lowest risk security also provides the lowest returns. So safety is bought at the expense of yield.

b). Maturity:- Maturity refers to the time period over which interest and principal are to be paid. The price of long-term security fluctuates more widely with interest change than the price of short-time security, hereby being more risky. For safety purpose therefore, short-term securities are preferred by the firm for the purpose of investing excess cash.

c). Marketability:- The security portfolio is usually held to provide liquid reserves or to meet known needs at a specific time. In either case the firm must be able to sell its holdings and realize cash on short notice. Accordingly, the securities held in the portfolio must be readily marketable.

2.6 Financial Working Capital

The firm must find out the source of funds to finance its current assets. It can adopt different financing polices. According to Pandey (1981:341-342) three types of financing can be distinguished. Long term financing are shares, debentures preferences shares, retained earrings and debts from financial institution. These sources include short-term loans, commercial papers and factory receivables. Spontaneous financing refers to the automatic sources of short-term funds. The major sources of such financing is trade credit (Creditors and bill payable) and expenses. Spontaneous sources are loss free. Therefore, a firm should like to finance the current assets with spontaneous sources as much as possible. Pandey (1981:342) also stated that working capital is supposed to be finances by short-term funds but this is seldom the case in practice. Organizations usually adopt working capital policy options that can be grouped conveniently into the following according to their objectives.

1. Aggressive Policy Aggressive Policy is said to be followed by the firm when it uses short-term financing that warranted by the matching plan in which the expected life of an asset is matched with the expected life of the source of funds raised to finance the assets. Under aggressive policy, the firm finances part of its permanent current assets with short term financing.

2. Liberal Policy:- Under this, some current assets are finances by short-term credit while the more permanent current assets and fixed assets are finances by long-term credits.

2.7 Profitability as a Measure of The Firm's Performance.

The main objective of a business organization is to maximize share holder's wealth. The extent to which this wealth maximization is achieved depends on how much profit is made.

Again, one of the main characteristics of a commercial organization is profit motive. According to Wood (1982:50), the earning of profit is after all us usually the main reason why the business was set up in the first pace and the proprietor will want to know for various reasons how much profit has been made. The business organization would want to know its profit for divers reasons as;- to assist it plan ahead, to help it obtain loan from creditors, to show a prospective buyer or may be, to know its profit for income tax purposes.

From the foregoing, it could be seen that the main objective of the business organization is to make profit and thus, it serves as a good parameter for measuring firm's performance.

Orjih (2001:89), State that liquidity Vs profitability management involves determining the total amount of cash and marketable securities the form will hold. The liquidity positions a firm is its continuous ability to pay for its maturing obligations. To ensure solvency, the firm should be very liquid, which means larger current assets claims when they become due. Therefore, a liquid firm has less risk of insolvency. However, there is cost associated with maintaining a sound liquidity position. A considerable amount of a firms fund will be tied up in current assets and to the extent this investment is idle, the firm's profitability will suffer. To have higher profitability, the firm may sacrifice solvency and maintain a relatively low level of current assets. When the firm does so, its profitability improves and less funds are tied up in idle current assets but its solvency would be threatened and would be exposed to greater risk of cash shortages and stock-outs.

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CHAPTER THREE

Research Design and Methodology

3.1 Research Design

Consequently upon our discussion based on working capital management as a tool for cost minimization and profit maximization a case study of ANAMMCO, Enugu state. In this work, we shall discuss the method used in carrying out the this project chapter which is the chi-square (x^2) method. Our concern here will focus on the sources of data, research instrument, population, reliability/validity of research Instrument, sample and research technique, method of data Analysis, Administration of research instruments and Decision Criterion for Validation of Hypothesis

3.2 Sources of Data

The sources of data were both primary and secondary. The primary sources of data were interview granted to me by the management staff, accountants and Auditors of the company.

Questionnaires, which consist of both structured and unstructured questions, were equally used. While the secondary sources of data include Annual financial report of the company supplied by the company's Accounts. Information was also obtained from text books on financial management, corporate finance, cost accounting and business account. Finally, financial periodicals such as current information on working capital management

3.3 Research Instruments

The primary source of data for this study was questionnaires. It was adopted because it assisted me more than any other technique to gather the much needed data from workers and the people in authority of ANAMMCO. The questionnaire gave the respondent the free will to express their view, guarantee anonymity and was most suitable for the study. This was to enable respondents, to be more elaborate, in their answers. It was also designed to elicit some recommendations. It was hoped that this could help to strengthen the outcome of the research.

The questionnaire contained information on personal data such as age, sex, marital status, level of education, department of the workers. The respondents were allowed to take the questionnaire home since they were too busy during the working hours to fill in the questionnaires.

3.4 Reliability/Validity of Research Instrument

It is design to measure the degree to which the research instruments produces consistent result or the consistency measurements of the same research phenomenon. Generally, it implies that despite variances in time. The same set of element must yield fairly the same result.

3.5 Population

According to the dictionary of sociology by Marshall cordon, in statistical terms, a population refers to the aggregate of individuals or units from which a sample is drawn, and to which the results of any analysis are to apply. In other words, the aggregate of persons or objects under investigation.

The population of this study comprised all the workers of departments. The entire population was two hundred and twenty (220) workers.

3.6 Sample and Sampling Technique

The sample for the study was ANAMMCO, Enugu state. Some workers of the Accounts units, Auditors and management of the company were equally used. The selection for the sample was by random sampling technique to obtain information gathered, the researcher drew his conclusion.

Hence the researcher adopted Yaro Yamene formula to determine the sample size

Thus the are as follow

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

Where n = Appropriate sample size

N = population size

e.= coefficient or confidence margin or error unit (5% or 0.05)

solution

$$n = \frac{60}{1 + 60(0.05)^2}$$

$$= \frac{60}{1+60(0.005)}$$

$$= \frac{60}{1+0.15} \qquad = \frac{60}{1.15} \qquad = 52.173$$

n = 52

in the process of collecting the questionnaires two were missing and only (50) fifty of the questionnaire were returned.

3.7 Administration of Research Instruments

Since the instrument for data collection is the "questionnaire". The respondent of each section will be collected and administered to research a conclusion in the research work. A total of 50 questions were drawn for the instrument of which the sample size of this research study will be used.

3.8 Method of Data Analysis

The information called were thus analyzed using the simple percentage and chi-square (x^2) method to help the researcher in analyzing the responses. The analysis was done by group questions under hypothesis to which they were attached.

3.9 Decision Criterion for Validation of Hypothesis

Accept Ho (Null Hypotheses) if calculated value x^2 is less than the table value (x_1) otherwise reject.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS, HYPOTHESIS TESTING

In this chapter, the researcher intends to explain the method of data analysis used.

From the personal interview conducted, results of questionnaire distributed and observation made, the researcher hereby makes the following presentations, findings, analysis and discussions. As earlier mentioned that personal interview was selected for obtaining of data input for research work because of its advantages of first hand information.

The analysis and discussion of the results of the study is in relation to working capital management as a tool for cost minimization and profit maximization.

4.1 Analysis of Questionnaire

Data collected from the questionnaire will be evaluated.

Question 1: The sex of Individuals

4.1.1 Table 1

Respondents	**Frequency**	**Percentage %**
Male	36	72
Female	14	28
Total	50	100

Source: Field work 2013

The table above showed that the male are 72% and female are 28%. That is the male respondents was more than the female's respondents

4.1.2 Question 2

Table 2

The age bracket of the employees

Respondents	**Frequency**	**Percentage %**
18 -27	7	6
28-37	7	14
38-57	25	50
48-57	10	20
58 & above	5	10
Total	50	100

Source: Field work 2013

The table above showed that the majority response were from the people within the age bracket of 38-47. They were a total of 25 people that is 50% in total.

4.1.3 Question 3

Table 3:

The marital status of the employees

Respondents	**Frequency**	**Percentage %**
Married	30	60
Single	10	20
Divorced	6	12
Widowed	4	8
Total	50	100

Source: Field work 2013

The table above showed that majority of the employees are married and the 60% and 20% are single, 12% divorced & 8% widowed so there are more of married employees.

4.1.4 Question 4

Table 4

The level of educational qualification

Respondents	Frequency	Percentage %
MBA/MSC	3	6
B.Sc/HND	19	38
OND/NCE	28	56
Total	50	100

Source: Field work 2013

The response above shows that the employees are more of OND/NCE than BSC/HND & MBA/MSC because the response of OND/NCE was 28 that is 56% of the employee.

4.1.5 Question 5

Table 5

The status of the employee

Option	Frequency	Percentage %
To level manager	15	30
Middle level manager	10	20
Lower level manager	25	50
Total	50	100

Source: Field work 2013

The response from the table above shows that the lower level manager responded more to my questions, because they are 25 that is 50%

4.1.6 Question 6: does the profitability of a firm depend on the level of its working capital management

Table 6

Options	**Frequency**	**Percentage %**
SA	22	44
A	15	30
SD	6	12
D	5	10
UN	2	4
Total	50	100

Source: Field work 2013

From the above analysis 44% strongly agree that the profitability of a firm depends on the level of its working capital management while 15 respondent represent 30% agreed also while 12% strongly disagrees while 10% disagree and 4% were natural n regards to the question asked.

4.1.7 Question 7: Do you believe that for the company to achieve profit the financial manager need to check operations relating to current assets and current liability of the firm

Table 7

Options	**Frequency**	**Percentage %**
SA	15	30
A	73	46
SD	8	16
D	4	8
UN	-	-
Total	50	100

Source: Field work 2013

From the table above 15 respondent representing 30% strongly agreed while 23 respondent representing 46% agreed that the financial manager need to check operations relating to current assets and current liability of the firm while 8 respondent represent 16% strongly disagree while 4 respondent represent 8% disagrees to the question asked.

4.1.8 Question 8: Segregation of duties reduces pilferages and left thus increase the profit of the organization.

Table 8

Options	**Frequency**	**Percentage %**
SA	29	58
A	21	42
SD	-	-
D	-	-
UN	-	-
Total	50	100

Source: Field work 2013

From the above analysis 29 respondent represent 58% strongly agreed that segregation of duties reduces pilferage and theft thus increased the profit of the organization while 21 respondent represent 42% Agreed to the question asked.

4.1.9 Question 9: Do you agree that working capital management contributes to the activities of your manufacturing company.

Table 9

Options	**Frequency**	**Percentage %**
SA	14	28
A	20	40
SD	9	18
D	4	8
UN	3	6
Total	50	100

Source: Field work 2013

From the above analysis 14 respondent represent 28% strongly agreed while 20 respondent represent 40% agreed that working capital management contributes to the activities of your manufacturing company while 9 respondent represent 18% strongly disagreed while 4 respondent represent 8% disagree while 3 respondent represent 6% were neutral in regards to the question asked.

4.1.10 Question 10: Is working capital management a tool for management control.

Table 10

Options	**Frequency**	**Percentage %**
SA	9	18
A	5	10
SD	27	54
D	6	12
UN	3	6
Total	50	100

Source: Field work 2013

From the above analysis 9 respondent represent 18% strongly agreed while 5 respondent represent 10% agreed while 27 respondent represent 10% 54% strongly disagreed that working capital management a tool for management control while 3 respondent representing 6% were neutral in regards to the question asked.

4.1.11 Question 11: Physical security of stock is essential to cost reduction plan of an organization

Table 11

Options	Frequency	Percentage %
SA	-	-
A	-	-
SD	35	70
D	13	26
UN	2	4
Total	50	100

Source: Field work 2013

From the above table 35 respondent represents 70% strongly disagreed that physical security of stock is essential to cost reduction plan of an organization while 13 respondent represents 26% disagree while 2 respondent represent 4% are neutral in regards to the questions asked

4.1.12 Question 12 Preferage of cash has no impact on the organization on working capital position

Table 12

Options	Frequency	Percentage %
SA	10	20
A	21	42
SD	12	24
D	-	-
UN	7	14
Total	50	100

Source: Field work 2013

From the above 10 respondent represents 20% strongly Agreed while 21 respondent represents 42% agreed that preferage of cash has no impact on the organization on working capital position while 12 respondent represents 24% strongly disagreed while 7 respondent represents 14% were neutral in regards to the question asked.

4.1.13 Question 13: Do you agree that the level of working capital in your organization is maintained order to maximize profit

Table 13

Options	Frequency	Percentage %
SA	24	48
A	12	24
SD	8	16
D	4	8
UN	2	4
Total	50	100

Source: Field work 2013

From the above analysis 24 respondent represent 48% strongly agreed that the level of working capital in your organization is maintained in order to maximize profit while 12 respondent represent 24% agreed while 8 respondent represent 16% strongly disagreed while 4 respondent represent 8% disagreed while 2 respondent represent 4% were neutral in regards to the question asked.

4.1.14 Question 14: A good understanding of the operating cycle of the organization is essential for effective working capital management

Table 14

Options	**Frequency**	**Percentage %**
SA	7	14
A	5	10
SD	3	6
D	4	8
UN	31	62
Total	50	100

Source: Field work 2013

From the above analysis of respondent represents 14% strongly agreed while 5 respondent represents 10% Agreed while 3 respondent represent 6% were neutral in regards to the question asked of a good understanding of the operating cycle of the organization is essential for effective working capital management.

4.1.15 Question 15: does efficient & effective working capital management by managements play a vital role in cost reduction

Table 15

Options	Frequency	Percentage %
SA	28	56
A	6	12
SD	11	22
D	4	8
UN	1	2
Total	50	100

Source: Field work 2013

From the above table above 28 respondent represents 56% strongly agreed that efficient & effective working capital management by mangers play a vital role in cost reduction while 6 respondent represent 12% disagreed while 11 respondent represent 22% strongly disagreed while 4 respondent represent 8% disagreed while 1 respondent represent 2% were neutral in regards to the question asked.

4.1.16 Question 16: Effective inventory management reduces cost associated with excess inventory and that with stock out there by reducing cost for the organization.

Table 16

Options	Frequency	Percentage %
SA	16	52
A	14	28
SD	10	20
D	6	12
UN	4	8
Total	50	100

Source: Field work 2013

From the above analysis 16 respondent represents 52% strongly agreed that effective inventory management reduces cost associated with excess inventory and that with stock out thereby reducing cost for the organization while 14 respondent represent 28% agreed while 10 respondent represents 12% disagreed while 4 respondent represents 8% were neutral in regards to the question asked

4.1.17 Question 17 does effective capital management have any effect on production efficiency.

Table 17

Options	Frequency	Percentage %
SA	21	42
A	15	30
SD	10	20
D	3	6
UN	1	2
Total	50	100

Source: Field work 2013

From the table above 21 respondent represents 42% strongly agreed that effective capital management have effect on production on efficiency while 15 respondent represent 30% agreed while 10 respondent represent 10% strongly disagreed while 3 respondent represent 6% disagreed while 1 respondent represent 2% were neutral in regards to the question asked.

4.2 Test of Hypotheses

Since there is more than one population proportion, a statistical distribution known as chi-square (x^2) will be employed for testing Hypotheses.

Null hypotheses (Ho) The profitability of a company does not depend on the level of its working capital management.

Alternative hypotheses (H1) The profitability of a company is dependent on t he level of its working capital management.

$$x^2 = \sum \frac{(fo - fe)^2}{fe}$$

Where: Fo = observed frequency

Fe = expected frequency

$\sum$ = Summation

X2 = chi-square value

S = level of significance = 1%

Df = Degree of freedom = n-1

Expected frequency is also given as

$$fe = \frac{GT}{ct}$$

Where:

Ct = column total

Rt = Row total

Gt = Grand total

To test hypotheses one, the researcher shall use the data collected from the response to question number 6 in the questionnaire.

Question 6: does the profitability of a firm depend on the level of its working capital management.

Table 18

Interpretation of Response to Question (6)

Responses	**Fo**	**Fe**	**Fo-Fe**	**(Fo-Fe)2**	$\sum \frac{(fo - fe)^2}{fe}$
SA	22	10	12	144	14.4
A	15	10	5	25	2.5
SD	6	10	-4	16	1.6
D	5	10	-5	25	2.5
UN	2	10	-8	64	6.4
Total	50	50	0	274	27.4

Source: Field work 2013

Where Fe = $\frac{GT}{ct}$ = $\frac{50}{5}$ = 10

The level of significance is 5% or 0.05, the degree of freedom is 1 and was arrived thus

(c – 1) (R – 1)

(5 -1) (2 – 1)

(4) (1)

At 0.05 significance

X^2 cal = 27.4

X^2 tab = 9.49

Decision rule earlier states

If x^2 cal is greater than x^2 tab reject null hypothesis (Ho) accept alternative hypotheses (H_1)

If x^2 cal is less than x^2 tab accept null hypothesis (Ho) reject alternative hypothesis (H_1)

From the calculations above its obvious that x^2 cal is greater than x^2 tab.

Therefore, from the decision rule we are to reject the null hypothesis (Ho) and accept the alternative hypothesis (H_1) meaning that the profitability of a firm depend on the level of its working capital management.

Hypotheses Two

Ho: working capital management is not a tool for management hypotheses, the researcher shall use the data collected from the response to question number 10 in the questionnaire.

Question 10: Is working capital management a tool for management control?

Table 19

Interpretation of Response to Question (10)

Responses	**Fo**	**Fe**	**Fo-Fe**	**(Fo-Fe)2**	$\sum \frac{(fo-fe)^2}{fe}$
SA	9	10	-1	1	0.1
A	5	10	-5	25	2.5
SD	27	10	-17	289	28.9
D	6	10	14	16	1.6
UN	3	10	-7	49	4.9
Total	50				38

$$fe = \frac{50}{5} = 10$$

Degree of freedom (DF)

(r – 1)   (-1)

R = row   c= column

(5-1) (2-1)

(4) (1)

Df = U

At 0.05 significance

X^2 cal = 38

X^2 tab = 9.49

Since the decision rule is

X^2 cal is > reject null hypothesis (Ho)

X^2 cal is < accept null hypothesis (H_1)

X^2 Cal is 38 and it is greater than X^2 tab 9.49

Therefore, the calculated value is 38 is greater than tabulated value 9.49, alternative hypothesis is accepted.

This implies that working capital management is a tool for management control in a business concern.

Hypothesis Three

Ho: Does effective capital management have any effect on Production efficiency

To test these hypotheses, the researcher shall use the data collected from response to question number 15 in the questionnaire

Question 17: Does effective capital management have any effect on production efficiency

Table 20

Interpretation of Response to Question No (17)

Responses	**Fo**	**Fe**	**Fo-Fe**	**(Fo-Fe)2**	$\sum \frac{(fo-fe)^2}{fe}$
SA	21	10	11	121	12.1
A	15	10	5	25	2.5
SD	10	10	0	0	0
D	3	10	-7	49	4.9
UN	1	10	-9	81	8.1
Total	50				27.6

$$fe = \frac{50}{5} = 10$$

Degree of freedom (DF)

(R – 1) (C – 1)

(5 -1) (2 – 1)

(4) (1)

4

DF = 4

At 0.05 level of significance

X^2 cal ES > reject null hypothesis (Ho)

X^2 cal ES < accept null hypothesis (H_1)

X^2 cal been 27.6 is greater than x^2 tab been 9.49

Therefore, reject the null hypothesis (Ho) and accept the alternative hypothesis (H_1) meaning that effective capital management has effect on production efficiency.

CHAPTER FIVE

Summary of Findings, Conclusion and Recommendation

5.1 Summary of Findings

This project topic has established the existence and importance of working capital management which involves planning and control of resources and application of working capital. The following findings were made or identified on the questions asked on the case study.

1. The response gathered from the workers shows that reduction of pleferages & theft would increase profit in an organization
2. That companies in the country in general particular Anammco appreciate efficient & effective working capital because it plays a vital role in cost reduction.
3. There is a disagreement that physical security of stock is essential to cost reduction plan of an organization.
4. The profitability of a firm depend on the level of its working capital management

5. The workers agreed that for a company to achieve profit the financial manager need to check operations relating to current assets and current liability of the firm.

6. It shows that the workers agreed that preferage of cash has no impact on the organization on working capital position

7. It is agreed by the workers that working capital management contributes to the activities of a manufacturing company

8. The workers strongly disagreed that working capital management is a tool for management control.

9. The workers strongly agreed that working capital in an organization is maintained in order to maximize profit.

10. The workers were neutral to the question asked, that is if the understanding of the operation cycle of the organization is essential for effective working capital management

11. The workers strongly agreed that effective inventory management reduces cost associated with excess inventory and it reduces cost.

12. The worker strongly agreed that effective capital management have effect on production efficiency.

5.2 Conclusion

Efficient administration of working capital entails investing neither too little nor too much in working capital, instead it should be sound. This is because both excessive and inadequate working capital position are dangerous and will adversely affect the financial position of the firm and its profitability. Therefore, adequacy of working capital is a matter of management policy and size of the enterprise.

This study has gradually evaluated the working capital management as obtainable in Anambra motor manufacturing company (ANAMMCO), Enugu and how its effectiveness has contributed to increase profitability and decreased cost.

The researcher critically examined the various items of working capital management and affect on cost and profitability of the company.

It is a known fact that firms aim at maximizing wealth of shareholders. In this effort to increase the wealth of the shareholders and building a good will, the firm should earn enough returns from its activities. To achieve this objective, the firms should appreciate the importance and efficient working capital management.

5.3 Recommendations

The firm should appreciate the importance of effective and efficient working capital management.

1. The firm should make sure that the physical security of stock is available so as to reduce cost in the organization.

2. The firm should put in place a good working capital management so as to improve the firm's profit.

3. They should enhance their working capital so as to make sure the organization is strong and better to maximize profit.

4. The organization should make a good understanding of the operating cycle so as to create an effective working capital management.

5. They should make raw materials available so that cost would be minimized.

Finally, it is the sincere idea of the researcher that if the recommendation above are adhered to there must be continued efficiency and control of working capital management.

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APPENDIX I

Department of Accountancy
Faculty of Management and
Social Science
Caritas University
Amorji-Nike,
Enugu State
August 2013

Dear Sir/Madam,

REQUESTION FOR THE COMPLETION OF QUESTIONNAIRE

I am a final year student of the above mentioned Institution, carrying out a research on the overview of “WORKING CAPITAL MANAGEMENT AS A TOOL FOR COST MINIMIZATION AND PROFIT MAXIMIZATION”. (A CASE STUDY OF ANAMBRA MOTOR MANUFACTURING COMPANY ANAMMCO ENUGU).

This study is purely for academic purpose, therefore, your response or opinion will be treated in strict confidence.

Thanks for your anticipated cooperation

Yours sincerely,

Irabor Jennifer I.

APPENDIX II

QUESTIONNAIRE

SECTION A

Instruction: Please kindly tick (√) against only answer you consider appropriate

1) What is your sex

Male ( )

Female ( )

2. What is your age bracket?

Between 18-27 ( )

Between 28-37 ( )

Between 38-47 ( )

Between 48-57 ( )

58 and above ( )

3. What is your marital status?

Married ( )

Single ( )

Divorced ( )

Widowed (   )

4. Educational Qualification

MBA/MSC (   )

BSC/HND (   )

OND/NCE (   )

5. Status

Top level manager (   )

Middle level manager (   )

Lower level manager (   )

Section B

SA – Strongly Agreed

A – Agreed

SD – Strongly Disagreed

D – Disagreed

UN – Neutral

Instruction: In this question below kindly tick (√) against only answer you consider appropriate.

6. Does the profitability of a firm depend on the level of its working capital management?

a. SA ( )

b. A ( )

c. SD ( )

d. D ( )

e. UN ( )

7. Do you believe that for the company to achieve profit the financial manager needs to check operations relating to current assets and current liability of the firm

a. SA ( )

b. A ( )

c. SD ( )

d. D ( )

e. UN ( )

8. Segregation of duties reduces pile forages and theft thus increase the profit of the organization

a. SA ( )

b. A ( )

c. SD ( )

d. D ( )

e. UN ( )

9. Do you agree that working capital management contributes to the activities of your manufacturing company

a. SA ( )

b. A ( )

c. SD ( )

d. D ( )

e. UN ( )

10. Is working capital management a tool for management control?

a. SA ( )

b. A ( )

c. SD ( )

d. D ( )

e. UN ( )

11. Physical security of stock is essential to cost reduction plan of an organization

a. SA ( )

b. A ( )

c. SD ( )

d. D ( )

e. UN ( )

12. Preferage of cash no impact on the organization working position

a. SA ( )

b. A ( )

c. SD ( )

d. D ( )

e. UN ( )

13. Do you agree that the level of working capital in your organization is maintained in order to maximize profit

a. SA ( )

b. A ( )

c. SD ( )

d. D ( )

e. UN ( )

14. A good understanding of the operating cycle of the organization is essential for effective working capital.

a. SA ( )

b. A ( )

c. SD ( )

d. D ( )

e. UN ( )

15. Does efficient & effective working capital management by managers plays a vital role in cost reduction?

a. SA ( )

b. A ( )

c. SD ( )

d. D ( )

e. UN ( )

16. Effective inventory management reduces cost associated with excess inventory and that with stood out thereby reducing cost for the organization.

a. SA ( )

b. A ( )

c. SD ( )

d. D ( )

e. UN ( )

17. Does effective capital management have any effective on production efficiency?

a. SA ( )

b. A ( )

c. SD ( )

d. D ( )

e. UN ( )