EFFECT OF WORKING CAPITAL MANAGEMENT PRACTICES ON PROFITABILITY OF RETAIL SUPERMARKETS’ CHAINS IN KENYA

BY
KIARIE ISAAC NGATA

THIS RESEARCH PROJECT HAS BEEN SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF MASTERS OF BUSINESS ADMINISTRATION (FINANCE OPTION), SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI

SEPTEMBER, 2018
DECLARATION
I hereby declare that this project is my original work and has not been submitted to any other university for the award of a degree.

Signature .................................. Date.............................................

Kiarie Isaac.

D61/86069/2016

This project has been submitted for examination with my approval as university supervisor.

Signature......................................... Date.............................................

Dr. Duncan Elly Ochieng, PhD, CIFA

Department of Finance and Accounting.

SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI
DEDICATION
I dedicate this research project to the Almighty God for keeping me healthy and giving me the capability and strength to undertake this work. I also dedicate this research project to my fiancée and family for their patience and support during the time I was working on it. I also dedicate this research to scholars in the field of Finance and wish them well in their endeavors.
ACKNOWLEDGEMENT
First I thank the Almighty God for giving me the strength and courage throughout the period of my studies and for his guidance. My acknowledgement also goes to University Lecturers and specifically acknowledge Dr. Duncan Elly who has patiently given his profound advice and guidance during this time. Lastly, I wish to acknowledge my colleagues and fellow classmates who we have walked this journey together. God bless you all.
# TABLE OF CONTENT

DECLARATION............................................................................................................ ii
DEDICATION.................................................................................................................. iii
ACKNOWLEDGEMENT................................................................................................. iv
TABLE OF CONTENT...................................................................................................... v
LIST OF TABLES............................................................................................................. ix
LIST OF FIGURES.......................................................................................................... x
ABBREVIATIONS AND ACRONYMS............................................................................. xi
ABSTRACT..................................................................................................................... xii

CHAPTER ONE .............................................................................................................. 1
INTRODUCTION............................................................................................................. 1

1.1 Background of the Study ....................................................................................... 1

1.1.1 Working Capital Management Practices ......................................................... 3

1.1.2 Profitability ....................................................................................................... 5


1.1.4 Retail Supermarkets Chains in Kenya .............................................................. 11

1.2 Research Problem ............................................................................................... 12

1.3 Objective of the Study .......................................................................................... 14

1.4 Value of the Study ............................................................................................... 14

CHAPTER TWO ............................................................................................................ 15
LITERATURE REVIEW ................................................................................................. 15

2.1 Introduction............................................................................................................ 15

v
CHAPTER FOUR .......................................................................................................................... 36

FINDINGS, PRESENTATION AND DISCUSSION ........................................................................ 36

4.1 Introduction ......................................................................................................................... 36

4.2 Descriptive Statistics .......................................................................................................... 36

4.3 Regression Analysis ............................................................................................................ 38

   4.3.1 Fit of Model .................................................................................................................. 38

   4.3.2 Analysis of Variance .................................................................................................... 38

   4.3.3 Coefficients .................................................................................................................. 39

4.4 Correlation Analysis ........................................................................................................... 40

4.5 Discussion of Findings ........................................................................................................ 41

CHAPTER FIVE .......................................................................................................................... 44

SUMMARY, CONCLUSION AND RECOMMENDATIONS .................................................... 44

5.1 Introduction ......................................................................................................................... 44

5.2 Summary of Findings ......................................................................................................... 44

5.3 Conclusions ........................................................................................................................ 46

5.4 Recommendations ............................................................................................................. 47

5.5 Limitations of the Study ..................................................................................................... 47

5.6 Suggestion for Further Study ............................................................................................ 48

REFERENCES ............................................................................................................................ 49

APPENDICES .............................................................................................................................. Error! Bookmark not defined.
APPENDIX I: LIST OF RETAIL SUPERMARKET CHAINS’ IN KENYA........Error!

Bookmark not defined.

APPENDIX II: DATA CAPTURE FORM ......................Error! Bookmark not defined.

APPENDIX III: T- TEST ..................................Error! Bookmark not defined.

APPENDIX IV: TESTS OF NORMALITY .....................Error! Bookmark not defined.

APPENDIX V: RESEARCH INTRODUCTION LETTERError! Bookmark not defined.
# LIST OF TABLES

Table 2.1 Summary ........................................................................................................................................ 29

Table 4.1 Descriptive Statistics .................................................................................................................. 37

Table 4.2 Fit of Model ................................................................................................................................. 38

Table 4.3 Analysis of Variance .................................................................................................................... 39

Table 4.4 Coefficients ................................................................................................................................. 40

Table 4.5 Pearson’s Correlation .................................................................................................................. 41
LIST OF FIGURES

Figure 2.1: Conceptual Framework .................................................................................. 28
### ABBREVIATIONS AND ACRONYMS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACP</td>
<td>Account collection period</td>
</tr>
<tr>
<td>APP</td>
<td>Account Payment period</td>
</tr>
<tr>
<td>CCC</td>
<td>Cash conversion cycle</td>
</tr>
<tr>
<td>ROA</td>
<td>Return on assets</td>
</tr>
<tr>
<td>GS</td>
<td>Growth in sales</td>
</tr>
<tr>
<td>GTS</td>
<td>Growth in total sales</td>
</tr>
<tr>
<td>WC</td>
<td>Working capital</td>
</tr>
<tr>
<td>WCM</td>
<td>Working capital management</td>
</tr>
<tr>
<td>WRC</td>
<td>Working capital ratio</td>
</tr>
<tr>
<td>CR</td>
<td>Current ratio</td>
</tr>
</tbody>
</table>
ABSTRACT

Working capital management practices is an integral aspect in success of the business due to its effect on profitability and liquidity. This study attempts to examine working capital management practices and profitability of retail chain supermarket in Kenya. The objective of the study is to establish the effect of working capital management practices on profitability of retail chain supermarkets in Kenya, and at the same time answer the following questions; what is the effect of cash conversion cycle on profitability of retail chain supermarket? How does inventory holding period affect the profitability of the retail chain supermarket? What is the effect of accounts receivable period on profitability of retail chain supermarket? How does account payables period affect the profitability of the retail chain supermarket? The researcher used descriptive design. For the researcher to find out and define the association between working capital management practices and profitability of retail supermarket in Kenya, the researcher used yearly secondary data for the period between 2012 and 2016. Data was collected from a sample of retail stores, whose financial statements were provided by their managers or owners. The data from the financial statements were presented and analyzed in relation to the objective of the study. Data collected was analyzed by use of descriptive statistics and inferential statistics. Descriptive statistics included trend analysis over the years for the variables under study. Inferential statistical techniques that were applied included Pearson’s correlation and regression analysis which were used to draw a causal relationship between working capital management and profitability. Data was investigated by means of a statistical software - Statistical Package for Social sciences (SPSS) in order to assess and determine the correlation and regression analysis between the profitability and cash conversion cycle, inventory holding period, account payable period and receivable period. Data was presented using tables and figures. The correlation results show the association between the Inventory holding period, Account payable period and account receivable period. Regression results show that there is a positive relationship between the account receivable period, inventory holding period and account payable period. The regression results further showed that the account receivable period was statistically significant hence an important determinant of profitability. It can be concluded that, the inventory holding period, account payable period and account collection period are key determinant of the profitability. The researcher recommend that to increase the value of the firm, the management should focus on greatly reducing the cash conversion cycle and increasing the number of days of account payable with check and balance to ensure no strain relationship with the suppliers which can impair their public image and good reputations. It would be worthwhile if the further studies would be extended to effect of information technology on the working capital management practices and subsequently to the profitability of the firm.
CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Monitoring current assets and current liabilities is Long-term virtue of any monitoring of corporate finance. This is the closest association between the current items of the both current assets and liabilities. For the daily operation of the firm both the current assets and liabilities are vital for the business existence (Eljelly, 2004). Current assets and current liabilities are vital to day to day existence of the lower business. Management of working capital mainly focuses on ascertaining a consistency in the operations of a firm and there exists enough money to meet addition debt of short duration and recurrent operation cost. Working capital management emphasizes on close monitoring of the inventories, accounts payables and receivable and cash item in the firm (Raheman & Nasr, 2007). The model of working capital items management enhances the provision of enough support for the long-term and low-cost operation to the existing business operations by striking an equitable balance between the risks, profitability stands liquidity of a firm (FTC Foulks Lynch, 2005).

In the recent past, there have been merger and acquisition in the world retail, the retail market has become more concentrated with many waves of the business combination among the big retail chains characterized by diversification of the investment outside the current operation geographical region (Dimitrios P. Koumanakos 2008). The move is geared towards increment of the market shares as well as the increase in shareholders wealth and profit maximization. Expansion of the market share that will enhance consistency maximization of the shareholder's wealth is dependable on two recent what
factors mainly consistency firm profitability (Padachi, 2006). To maximize profit by any firm largely depends on the accurate management of cost and method of the production with increment in sales enabling the firm to dominate in the current market (Matoha, 2007). Working capital is deemed to be a key factor that influences the firm profitability. Mainly working capital is a combination of all the stock kept that have the high liquidity to be converted or have a resale value that results in the profit gain. Working capital constitutes the largest cost of firm specifically the retail market which is prevalent to fraud due to its nature that accompanies it. Total investment of any retail market 50% is working capital that is maintained to run the business on a day to the daily operation. Any form of investment in working capital is a sigh of grain yield by any firm. Any a of increment in levels of the current assets results to firm enjoying an increment in return of the investment while a firm that is characterized by more liabilities may incur shortage and difficulties in the successful maintenance of the current operations (Van Horne & Wachowicz, 2000). It is a clear indication that elements of the working capital are an essential constituent of company finance as it influences the capacity of transforming inventories into cash and subsequently into returns of the firm. It prioritizes and emphasizes on working capital. Evidently, of the total assets, half of the assets are the current assets (Abdul & Mohamed, 2007).

The major reason why managers of any firm spend considerable time on the management of the current assets is that current assets are short-lived and highly prevalent to theft and frauds continually converted to other classes of assets (Rao, 1989). The potential to transform tangible assets to cash of an operation firm is majorly dependable on the cash flow generated by already available assets but not the assets value or ability to convert
assets into cash. (Soenen, 1993). Current assets and current liability monitoring of the company is a volatile area in the organization structure monitoring of finance (Joshi, 1994). Commonly have to arrive at choice of financing the assets and the composition of these current assets

1.1.1 Working Capital Management Practices

Management of working capital majorly emphasizes on the current assets associations with the current liabilities of the firm. (Rangarajan, 2005). More importantly, current assets and current liability monitoring are to ascertain and ensure that the firm has the potential to continue with day to day activities and have the potential to meet both short-term debt and recurrent expenses. Good management of the working capital involves effective and efficient management of cash, both account is payable and receivables and inventories on the timely basis. Proper monitoring of the items of working capital includes equitable and efficient management of assets and liabilities to ensure equitable trade-off of profitability and liquidity. Harris (2005) highlighted monitoring of assets and liabilities both currents is a clear and simple well-outlined model to achieve potential to a company separate liability and short-term assets. All firms are geared towards the goal of the profit maximization and of value increment to their shareholders. To maximize profit an equitable balance between the items of the working capital and prioritize on an ability to generate revenue and ability to convert assets to cash.

Maintaining the ability to convert assets into cash and preserving the ability to generate profit is a big achievement (Deloof, 2003). Any increment in profit at advantage of the ability to convert assets into cash can create a nightmare in the financial structure of a company. Both the management of items of working capital is very important is a vital
element in analyzing the company's performance while maintaining day to day activities (Matoha, 2007). Chance of the imbalance between current assets and current liabilities items does exist during the firm life cycle of the profitability. This form the basis why many scholars and academia are eager and keen to research the association and connection that exist in conjunction of the potentiality of working capital and capability to generate returns. Cash conversion cycle represent the amount and the length of the time that cash is tied up in the items of the working capital (Brigham & Houston 2007). The standard measure of the working capital management is the cash conversion cycle (CCC). The duration of the time between the disbursement and collection of the cash in mainly referred to as cash conversion period. Computed by estimating receivable conversion period and the inventory conversion period subtracting the payable conversion period.

Inventory holding period is a process of maintaining an optimal inventory levels across the firm premises. The cost of the possible interruptions and loss preventions can only be achieved by maintaining an optimal inventory levels across the firm premises. It helps to reduce the losses that arise as result scarcity products and cost of the supply and guard against price fluctuations. One of the main goals of the firm is to establish an optimal inventory levels. To establish an optimal inventory levels it is much easy and possible to adjust the items of the raw material and finished goods than the inventory as whole Swaminathan (2001).

Accounts receivable period is commonly used as a provision of marketing strategies by many firms to either expand or maintain their sales (Pandey, 2004). According to (Ross et al., 2008), shortened creditors collection duration augmented with the efficient receivable coupled with reduced levels of the bad debts and a well outlined credit policy always
improve the firm ability and likelihood of attracting customers with final result of improvement in financial performances hence more likelihood for retail supermarket chains to have a sound and credible credit policy that will ensure their value is optimized.

According to Wilson, et al (1997) account payable period in retail supermarket chains in UK that pays their liabilities mainly associated with the trades late appears to do when they reach their limit on their bank short term finance. The retail supermarket chains are credit rationed and are typically growing service oriented firms. The statutory interest being imposed will significantly reduce the amount of the credit offered to the retail supermarket chains. Failure to secure an alternative source of the finance wills results to a cute liquidity problem and increased failure rates

1.1.2 Profitability

According to Kumar (2008) profitability is the potential and capability to earn and generate a return from day to day operation of the company, institution, and firm. It clearly how well management can generate profit with the use of all the available resources. Profitability is deemed as the capacity of any identifiable firm to generate a return of it use (Upton, 2009). Profitability is a key measure of the efficiency and profitability; it’s deemed as a key indicator efficient and management inspire and direct to higher efficiency. Though, profitability is an essential index of measuring efficiency, the level of the profitability ought not to be taken as the final indicator of the efficiency. Occasionally good level of profitability can indicate inefficiency and conversely, a higher degree of efficiency can be characterized by lack of profit (Padachi 2006).
There two type of profitability ratio one in relation to investment and finally in relation to sales (Atrill 2006). Both these ratios clearly saw firm’s overall effectiveness of day to day activities. To clearly identify and pinpoint the cause and effect for high and low profitability, financial manager and his team need to continually evaluate the efficiency of a firm in terms of returns and gains (Atrill 2006). A clear and close study of the both retained earnings, various reserves and surplus will help the financial manager to identify whether a profit has increased or not.

Any increment in the balance of this items is a clear proof of increased profitability, any decrease will automatically indicate a decrease in profitability (Bowen, 2009). The below rates are computed to analyze the profitability. Total profit ratio or gross profit indicates and analyze the spread between the cost of operation and revenue generated. Any point of change in the ratio is a result of alteration in the cost of operation or generated revenue or both (Bowen, 2009). The key goal of this ratio is to outline the efficiency in which day to day activities are carried on.

Net operating ratio determine and highlights the key relationship between net operating profit and the net sales. This helps to determine and measure the profit being generated out of the main organization business (Atrill 2006). More importantly, the ration will help to attribute and determine the efficiency and effectiveness in which the operations and activities of the business are being carried out and managed (Atrill 2006). A high resultant ratio implies a high level of improvement in the daily activities of the firm and vice versa.

1.1.3 Working Capital Management Practices and Firm Profitability

Investors have successfully enjoyed the victory with the ancient kiosk, by the new
invention of self-service as well value additional and after-sales services, customers are able to access credit and delivery to their home point that have enabled them to redefine themselves and differentiate themselves in the market structure. In the recent past, the familiarity of the retail market had only boomed in the unburn centers but the major wave has been witnessed in the recent days, the modern retail market is being established in the rural areas and interior part of the country (Nobanee 2009). A significant number of the population has been able to enjoy the effect of the organized retailing. The two-basic reason behind this move is, first, upcoming retailers shop has not yet felt the saturation in the urban location, this is what has kept them back not to look for another market elsewhere (Nobanee 2009). Finally, the modern retail market has taken an initiative to educate the society since their mainly characterized and dignified by the lifestyle aspect (David et al 2006).

The urban market is yet saturated to be felt by the upcoming and existing modern retailers, that why they have seriously explored the potential market in ruler’s areas and invested there. Kenya is mainly known to have customers with the amazing mode of consumption in the whole of the east Africa that has attracted both local and foreign investors in the retail market (David et al 2006). This has resulted in an improvement in the economy and ignites on upward growth of our retail sectors. In the recent past, Kenya retail market was dominated by indigenous retail channel and independent shops, the development of the chain of the market has taken roots in the rural area, (David et al 2006).

The major tasks rely on the establishment of the profitable entity and which locality since not all the location are the same and reseeded by the same individual. Financial analyst and company fund researchers commonly focus on financial information relating to investment
over the long-term duration, the source of the financing and various budget and analysis methods. This main relies on the motive of future financing as a method of planning (Afza & Nazir, 2008). More importantly, financial analysts and researchers highlight that the acute management policy of working capital will have high effects on the ability to generate returns of any organization (Lamberson, 1995). The short-termed source of the financing decisions is more relevant, as it will indicate the balance sheet of the organization and a clear picture regarding firm (Afza & Nazir, 2008).

Current assets and current liabilities monitoring and capital structure are essential components in analyzing the profitability of the firm (H. Biorman, Kachori, 2011). Many of literature research emphasized on working capital management centering their focus on the monitoring of stock and account receivables, it's of great concern that management of assets and liabilities lays a lot of concern on short-term payables (Lazaridis & Trfonidis, 2006). The monitoring majorly deals with the short-term financial needs of a company or firms. Despite the aspect of managing the day to day operations of the firm, the resultants aspect contributes to the long-run result of the enterprise.

The main concern is the time frame management between the expenditure and payment due to suppliers for the goods bought on credit and the cash collections from customers who have bought on credit (Afzal & Nazir, 2008. The main constituent of current assets and current liability are cash owed by the supplies, all receivables from the creditors and inventories. All the business needs to have more inventories and debtors being financed by net payables. Components of items of working capital vary of various stages of the business cycle. The core goal of management of current assets and current liabilities working is to
determine and ascertain the desired level of liquidity in order to improve and increase the company profitability, which forms the major capital financing decision (Brain, 2009). The lower requirement of the working capital will result in a reduction of the working capital untimely increasing the business profitability, consequently inadequate estimation of the working capital will result in a loss due to lower levels of inventory and decreased credit sales resulting to reduced profitability. With that in mind, the resultant and acute monitoring of both current assets and current liabilities is critical to any firm (Afzal & Nazir, 2008). The main objective of the current assets and current liabilities policy is to ensure trade-off both in the cash inflow and cash outflow. Good levels of the breakeven cash flow will enable professional management of the business (Brain, 2009). To achieve an equitable balance of the cash flow is one of the challenging tasks, it requires a top-notch and thorough knowledge in regards to working capital effective and sound monitoring. In-depth knowledge the basic elements of the working capital management will always help the finance manager make a good estimation of the risk an associated with the defaulting of the current obligation, as well as higher achievement of the business value by the maintenance of the proper balance (Lamberson, 1995). Specifically, in Sri Lanka business that fails to meet and settle their short-term obligation are forced to cease the business despite being profitable in the long run (Koperunthevi, 2010). Any business under the sun that want to remain in the operation for long run have to fully understand working capital systematically in order to continue yielding a profit. Upward growth of any business, require more stock, rawer materials for production in order to keep sales growing and rising steadily. To increase sales, the company have to come up with a policy of expanding the current existing sales credit facilities and more discounts. To be able to run
the business will need to establish a healthy relationship with the suppliers, where differed payment will be allowed and sometimes payment in advance where all this have a direct impact on working capital hence require careful management. With the clear picture of the review, this research will outline the affiliates pertaining monitoring of the working capital items, profitability and finally sales volume.

Reducing amount of the period the cash is tied up in the items of the working capital cycle significantly boosts the business profitability and the perceived market value, consequently resulting to efficient cash management practices improving the performances of the firm (Ross et al 2008). Managers are presumed to create the value of the firm altogether with that of the shareholders by significantly reducing the numbers of the days in inventory and account receivables. Shortening the cash conversion cycle can significantly improves firms profitability and returns. The period of the inventory conversion have a negative relationship on the performance of the business. An increment in stock out cost of the inventory will result sales reductions hence poor performance which is attributed to shortening of the inventory conversion period. Therefore the managers are well advised to hold inventory to an optimum levels since mismanagement of the inventories will results holding up excess of the capital at the expense of the operation profits (Lazaridis & Dimitrios, 2005).

The service delivery maybe uninterrupted if the firm holds to little inventories increasing the chances of losing potential client eventually leading to loss making and lowering the profitability of the firm. Increments in account receivable in a firm significantly results to an increase in both the cost of holding and managing the receivable accounts and the net working capital resulting to a decrease in the value of the firm (Michalski 2007). Firms
that optimize and maintain an optimal level of the receivable accounts have higher chances of increasing their levels of profitability resulting from well versed market share and increased sales. According to (Deloof 2003) the length of the collection duration of the receivable accounts has a negative effect on the performance and profitability of the firm significantly. A sound and well outlined credit policy ensures proper and meaningful debt collections which ensure s proper debt collection which is essential to management of the receivables hence improving the performance and profitability of the firm.

It is highly anticipated that the managers can increase the performance and profit by shortening the cash conversion cycle and the period of the collection of the receivables together with the inventory conversion period. With the increment of the payable deferral period could result to increment in performance and profit. More notably, the managers ought to be aware that increment of the payable deferral period may result to damage of the reputation of the credit and serious harm to the profit of the firm in the long run.

1.1.4 Retail Supermarkets Chains in Kenya

A retail supermarket is a business entity that buys goods from the manufactures and sell them to household in a relatively smaller quantity for the consumption lather than for resale as defined in Oxford dictionary.

For the chain supermarkets to thrive and enjoy consistence growth they must have a well versed knowledge on the concept of working capital management which can be mainly utilized in two ways. One gross working capital which mainly emphasize on the current assets as the firm main investment .Secondly, net working capital which is obtained from the difference between the current assets and current liabilities, this clearly stipulates the position of the firm both inform of liquidity and profitability and help firm reach a decision
on whether to finance the current assets from long-term borrowing or Ploughing back profit (Mathura, 2010).

Nakumatt Holdings have exited the retail market in most part of the country but other foreign and local retailers are capitalizing on the gap that have been left out and ready to pitch their tent. Despite many factors resulting to some retailers existing the market working capital management is one of the key issue, (Kweri, 2011). The retail supermarket chains in Kenya comprises of the major supermarket that sell a variety of the households goods under one roof. The Kenyan market is both dominated by local and foreign retailers namely, Carrefour, choppis, Nakumatt, Tusks, Uchumi, Ukwala, Naivas, and Eastmatt (Knight Frank’s report, 2nd quarter 2016).

One of the key sector in Kenyan economy in the retail market registering a growth of 7.5 percent, ahead of the agriculture, manufacturing, transport and communication sectors, (National economic survey Report, 2015). More notably, it is stipulated that many of the retail supermarket 40% fails by the first year of startup while 60% close down their operations in year three. Working capital management have been cited to be main reason behind this emergence failures (Nyamao, 2012). This study is mainly focusing on relationship between working capital management practices and the profitability of retail supermarkets chains in Kenya. Many of the supermarket that operate in Kenya are either privately owned or arises as joint venture (Ministry of Trade and Industry Report, 2012).

1.2 Research Problem

The retail market plays their role by ensuring deliverance of consistency superior value and quality to the target final end user and the consumer by a provision of the sustainable
consumption and production, occupying a key position in the chain of the production and the consumption between the end users and manufacturers. Retailers are the responsible for the extension of consistence usages of the product (Mathuva 2009). The major problems arise when a retailer is not able to meet these demands, especially that unexpected one which has a potential of the tarnishing the good picture of the entity and its clients whose may lose confidence and trust over the long period of time (Michalski 2007).

Financial demands arise when the retailers to maximize profit at the expense of the other neglecting the effect of the working capital and liquidity (Michalski 2007). Notably many of the studies on working capital management have been done in countries with the developed economies, intensive knowledge on working is of more important in developing countries especially Kenya where many firms heavily invest in the current assets and use the shorter source of financing. More importantly, the supermarket does buy on credit in bulk and sell in cash and loan are in short term since many of the facilities are leased.

It’s highly recommended that a reasonable relationship need to be established, on how working capital relates to profitability for these industries also in developing country both the human and financial resources are limited (Deloof 2003). In conclusion, the level of working capital in developed countries may not be the same. Secondly, most of the studies done yield different results, for example, a research by Nganga (2009) concerning receivables period have a negative effect on profitability at the same measure account receivable negatively affect profitability, while at the same time increase in account receivable period increases the sales resulting to increase in profitability. Would be more important to assess if the study to be undertaken would yield fruitful and conclusive results.
Finally, most of the research examined was on the manufacturing and listed companies. Nganga (2009) Any studies to be carried out in Kenya, the study was mainly focus on relationship arrived on previous studies. Weather would hold for the retail market which is also private entities, technical inability and financial distress with the withdrawal of the customers and suppliers.

1.3 Objective of the Study

The main purpose of the study was to determine the effects of working capital management practices on profitability of retail supermarkets chains in Kenya.

1.4 Value of the Study

The study is of use to various stakeholders.

The research is of importance to the management of Kenyan retail market because they comprehend the effect and benefit of efficient capital management and liquidity and steer achievable and manageable expansion. Also educate them on how to strike an equitable balance between the working capital, profitability, and liquidity.

Researchers

The study provided shortcoming foundation information to people of interest and scholars who wanted to find out more in this area. It will also provide the researcher with the opportunity to interact and share information with the target group. The finding of this study is of significant to competitors helps them to be able to understand the strengths, weakness, and level of competition of rivals.
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter will mainly focus on the summarized research carried out by other scholars in this field of the study. Theoretical review, empirical review, summary of the literature and conceptualization are key specific area to be covered.

2.2 Theoretical Reviews

2.2.1 Finance Theory

The financial theory is mainly subdivided under three basics categories: structure of the capital, variables of the working capital management and budgeting of the capital. (Aksoy 2005). The monitoring of the non-current finances are mainly related with the capital structure and capital budgeting. More notably, working capital and financial decisions are majorly concerned with the management of short term investment and their investment that incorporate variables of the working capital. Working capital efficiency is an integral aspects especially in retail and service delivery firms since their assets are mainly composed of current assets, this nature of the assets have a straight impact on firm both returns and ability to pay currents dues (Raheman & Nasr, 2007). Despite some firms being profitable in long run they are expected to be announced bankruptcy due to improper establishment of the working capital procedures in place (Kargar & Bluementhal 1994).

To ensure a firm don’t recede from optimality of working capital levels by mainly projecting the goal of return optimization is given priority or contrary to the confusing by focusing on the ability to short due and finally forget about returns at the same time. Substandard return on assets will be as result of the excessive working capital; significantly
lower amount of the working capital will result to considerable shortages and may be
difficult to maintain the day to day operations (Aksoy 2005). It is widely known that
working capital is a considerable source of the external capital mainly for the firms that are
in service and retail market that are considerably growing at higher rete.
The main characteristics of these firms are that they mainly depend on short term
borrowing since they are not listed in capital market to be able to raise additional source of
the capital. The aspect of the position of the working capital is not an internal wary but also
and external issues to the potential creditors of the firm. With high amount of the working
capital the firm will be able to meet it both short and long-term obligations at ease
(Raheman & Nasr, 2007). This will result to an increased value of the firm due to increased
borrowing capacity of the firm and reduced risk of default significantly resulting to a
decreased cost of the financing. Significantly, working capital efficiency not only affects
the short-term profitability but also long-term performance and potential of the firm in
achieving the competitive advantages maximizing the value of the firm, (Moyer et al.,

2.2.2 Liquidity Theory

Liquidity theory is basically a function of the current assets and current liabilities which is
deemed to be an important aspect in determining policies of the working capital indicating
the capacity and potential of the firm in rising up the cash at point of the need (Boer 1999).
The main and traditional known method of measuring the liquidity are acid test, current
ratio and the famous cash, this three measures are deemed to be ineffective since they are
all balanced measures and cannot provide detailed and expansive information about which
is accurate about the working capital management effectiveness.
Basically the formulae for measuring these ratios are basically geared to operating assets and liquidity as common factors. More notably, the mentioned famous traditional ratios are not effective but also meaningful in terms of the cash flows measure and (Richards & Laughlin, 1980). The ongoing liquidity measures is the accurate and acute measures of the working capital as emphasized by the (Boer 1999). The production, sales, payment, and the collection process of the ten firm taking over in a period of the given time is basically indicators of the ongoing liquidity which stipulates the inflows and outflows of the cash. Since the cash conversion cycle is a function of the liquidity it is sounder and appropriate to evaluate the effectiveness of the firm working capital management using cash conversion cycle lather than the famous traditional liquidity measures (Pinches, 1992).

2.2.3 Corporate Risk Management Theory

The theory stipulates that the owners and the shareholders of the firm are better placed if the firm maintains and operates a sound cash flows (Minton 1999). Well balanced and smooth cash flows help in adding the value to the firm significantly by reducing reliance on the external finances which is deemed to be expensive and inconsistencies. Study carried out by well-established researchers indicates that cash flows is highly volatile since it does affects the firm’s investment policy by increasing the likelihood and cost of raising the external capitation of the firm. Despite the cash flow being volatile as stipulated by the previous studies no clear proof that prevails that link directly the volatility of the financial statement s with the value of the firm (Shin & Stulz, 2000). The link is deemed to be more important, for the financial risk to matter, well running financial must be valued at it premium over the one deemed to be more volatile. Firms deemed to have premium smooth cash flows is more preferred by the investors that those firms that have volatile
cash flows. A negative relationship exists between the cash volatility of the cash flow and the firm value proxies as it is indicated by the risk management theory (Shin & Stulz, 2000). A number of the key reasons outlines why independence of the firm cash flows volatility may matter to the firm earning volatility. There is a likelihood of the firm with volatile earnings to results to a forecast errors as empirically outlined that why analyst to avoid such firms in their studies (Minton 1999). Significantly the investors and institutions should divert their attentions away from the firms that experience such diverse variations in their earnings.

The negative earnings are likely to be resulted from the volatility of the high earnings. The extensive earnings is as result of the consistence managers’ engagements. The firm borrowing cost and the default probability may be reduced by the firm smoothing of the earnings (Minton 1999). The markets might appears to be punishing the firm under certain key specifications for those firms emphasizing on earnings volatility mirror cash flows volatility under the smoothing behavior. It is well indicated that managers mainly focus their actions on smoothing cash flows rather than utilizing the key available accruals in the smoothening of the earnings. Firm’s value got so many diversified ways in which it interacts with the firm’s value. The capital asset pricing method stipulates that the value of the firm should be negatively with the systematic risks, thus lower value of the firm will be yielded by the higher discount rates all hold at per. Notably the research outlines that systematic does not have fur reaching effects on the value of the firm but also price the idiosyncratic (Shin & Stulz, 2000). A negative correction between the value of the firm and the systematic risk is deemed to exist, in addition a significant relationship between the value of the firm and the systematic risk as well outline by empirical evidences. Cash flow
and the earning volatility mainly alternative type of the risks are basically important unlike the market variable of the financial market they indicate the actual financial statement of the firm stability since they are directly affected by the key managerial decisions and the firm management risk policies (Shin & Stulz, 2000).

2.3 Determinant of Profitability

The determinant of the profitability are the key components of the profitability as described below.

2.3.1 Volatility

According to Bauer (2004) volatility is taken as bankruptcy probability of the firm hence the firm proxy for the risks. Bankruptcy risk is deemed to be major aspects that determine the firm capital structure (Thomas & Ramirez, 1991). A study carried out by Hsia, (1981), outlined that increase in variance of the firm assets result to automatic corresponding fall in equity systematic risk. Thus the leverage is directly linked with the business risk. A positive relationship between the profitability and leverage was confirmed by Kim-Sorenson (1986) at the same time a negative relationship between risk and leverage was confirmed by (Titman & Wessel 1988).

2.3.2 Firm Size

Diverse result have emerged between the results of various empirical reviews concerning the firm size and profitability Empirical evidence has given varying results relating to the relationship between firm size and profitability. Between the year 1997 to 2005, Velnampy and Nimalathasan (2010) carried out a research between Commercial Bank of Ceylon and bank of in Sri Lanka about the size of the firm on the firm profitability and they found out the positive relationship between profitability and size of the commercial bank of Ceylon
ltd and found no relationship between the size and profitability in bank of Ceylon. According to Demsetz (1973) argued that, the economies of the scale have nothing to do with the greater profit of the larger firms. With the help of data related to internal revenue service’s his make conclusion that the larger the firm the higher the profit the firm earns in highly concentrated market while the smaller firms enjoys the normal profit. The managerial utility maximization of the firm point out a negative relationship of the firm and profitability in (Amato & Wilder 1985) conceptual frame work.

2.3.3 Firm Assets Structure

The firm assets structure is the proportionate of the tangible assets that can be seen physically. One of the determinant of the capital structure of a firm is the assets structure the firm hold in it premises. The grater and high value of the firm should be implicated by the level of the assets together with the liquidity of the firm (Wessels 1988 & Harris and Raviv 1991). According to Kim (1984) outlined that, firms that maximize their investment on tangible assets have greater leverage in terms of financial since they borrow at lower interest rates if the assets are deemed to be the security for such loans. Firms have greater capacity to issues secured loans if they have more tangible assets thus less information is concealed about the future profit (Aivazian, Dmiruc-Kunt & Maksimovic 2001). A good number of empirical studies support a strong relationship between the firm working capital structures and the leverage of the firm. A studied carried out by Huang and Song (2006) outlined that assets tangibility and the size of the firm have positive relationship with leverage ratio of the firm respectively of the Chinese listed firms. A negative correlation emerged between the capital structures and the tangibility of the firm in studied carried on Ukrainian firms (Myroshnichenko 2004).
2.4 Empirical Studies

The duration in which funds are held and tied up in the item of the working capital is mainly referred to as cash conversion cycle Cash Brigham & Houston (2007). Many of the firm take the cash conversion cycle as a working capital standard measure tool. The period of the time between the disbursement of the fund and collection of the same reflect the cash conversion cycle. It majorly computed by estimation of the period of the inventory conversion and conversion period of the receivable subtracting the conversion period of the payables. An empirical analysis was carried out Manoj Anand & Keshar Malhotra (2007) related to the performance of the management of the working capital of the registered firms in India basically by utilizing the methodology developed and initiated by Anand and Gupta (2003) by using the data of the non-financial firm and analyzing them over a period of three years between 2001-20004 for each firm and industry. During the three year of the study the registered firm in India had an annual growth of 27% compounded annually of the net sales and 1.7% of the cash operating margin in a period of the four years.

A drastic decline of 11% and 13% between the operating cycle and conversion cycle of the cash was observed on compounded basis annually. The study was able to pin point out little evidence on the positivity of the relation between the profitability and the working capital. Reheman (2007) carried out a study on the effect of the working capital management on the profitability with a sample size of 100 listed firms in the stock market of the Islamabad in Pakistan between the years 1990-2005. The study mainly utilized the different variables of the working capital management, average collection period, inventory turnover in days,
cash conversion cycle and average payment in day on the performance of the firm and the profitability.

The study concluded that, the above four ratio analysis of the working capital management had a negative relationship with the firm’s profitability. Reducing the cash conversion cycle up to an optimum level was the only way out managers could increase the value to the shareholders. During the period of the year 2000 and 2005 Lazaridis and Tryfonidis (2006) did a study empirically of 140 listed companies in the stock exchange of the Athens. The result obtained was a negative relationship between the profitability and cash conversion cycle. The result provide an insight to the managers by providing ways in which managers can handle the disposable amount of the cash correctly and ensure optimality of each component of the working capital in order to improve the profitability of the firm.

The cost of the possible interruptions and loss prevention that arises from the scarcity business product can be minimized by maintenance of optimum level of the inventories. The optimum levels of inventory also help to protect against price fluctuations and reduce the cost of the supply Swaminathan 2001). The key goal of the inventory management is setting the inventory right. To reach to a reasonable level of optimum inventory, adjusting the key components of the finished goods and raw materials is much easier than the inventory as a whole (Swaminathan 2001). According to AutuKaite and Molay (2011) studied several other methods that can be implemented for effective management of the inventory such as just in time method and order quantity method. Many of the studies from various scholars have outlined existence of the negative relationship between the profitability and inventory conversion period. Empirical studies have shown that inventory conversion period has a negative effect on a business’s performance.
The stock out cost could be as result of minimizing the period of the inventory conversion which may end up to poor performance due to sales opportunity lost in the long run (Deloof, 2003). It is a matter of the urgency that the managers ought to be aware that failure to keep the inventory at optimum will result to committing up additional cash in terms of the capital at the expense of the profitability of the firm (Lazaridis and Demetrio’s, 2005).

As pointed out by (Dimitrios 2008) more and more holding of the inventory result to occupation of more physical space that might hick the financial cost resulting to damages of some inventories at the same time leading to major loss encounters lowering the profitability of the firm. The deficiency of the management practices is witnessed when a firm hold frequently large amount of inventories. The manufacturing interruption will be resulted by holding minimal levels of the inventories in the firm premises. This result to increased probability of losing the anticipated sales annually hence lowers the performance and the entire profit of the firm.

A study of the relationship between the working capital management of the inventory majorly emphasizing on the inventory management by (Singh 2008). He outlined that a firm with sound and effective management of the inventory have high chances of reducing inventory to a suspected optimum level which pose no negative effect on the performance and sales unlike the poor and ineffective inventory management which have adverse and negative impact on sales and hamper the long term profitability of the firm.

Many of the business utilizes the trade credit is one of the key marketing strategy with an ambition of the increased profit by increasing and maintaining the impending sales volumes (Pandey, 2004). With well outlined and efficient management of the receivables coupled with reduced creditors collection period, reduced bad debts and effective credit
collection policy will improve the business ability and potential to attract and retain new clients resulting to improved profit and performance of the firm hence sorting for credible and effective credit policy that will ensures the retail supermarket chains optimizes their values (Ross et al., 2008).

The carrying cost related with the granting of the credit constitutes of the losses of bad debts, cash discounts costs, cost of managing bad debts and collection of the credit costs which significantly increases the amount of the cash receivables. The opportunity coast is composed of the sales not earned from rendering the credit to the client that decreases as the amount of the receivable increases. For the firms that are deemed to be efficient determine their credit level optimality which minimizes the total cost of rendering the credit to client (Ross et al., 2008). According to Michalski (2007) where a firm increase level of its receivable accounts significantly results to an increment in both cost of holding capital, networking capital and cost of management of the receivable accounts which results to a decrease in the value and the profitability of the firm. According to Lazaridis and Dimitrios (2005) in their study outlined and analyzed that a firm that optimize on the increased level receivable accounts to optimal levels have high chances of increasing their profitability and the value of the firm from increased level of the sales and targeted market. A Research by Juan and Martinez (2002) reinforced that a firm can improve it value by significantly minimizing the number of the days of receivable accounts.

According to Deloof (2003) outlined that duration of the receivable collection period have a diverse and negative effects on firm performance and profitability. Having a credible and well outlined credit collection policy guarantee efficient debt collection procedures and is critical in boosting the performance of the firm and necessitate receivable management
Sushma & Bhupesh (2007). According to Teruel and Solano (2005) outlined that it is possible for the managers to generate the value of the firm by reducing their firm accounts receivables and inventories. In the year 2012 a study to establish the relationship between the account receivables and impending global crisis was carried by Baveld (2012). The study mainly focused on how firm in Netherlands managed and enhanced the effectiveness of their working capital during this period in time. The research mainly focused on two periods, financial crisis period and non-financial crisis period between 2008-2009 and 2004-2006 respectively. During the specified period of the global crisis no significant relationship of the two variables was identified. From the study it is viable to conclude that the association between the account receivable and firms profitability changed significantly in the time of the crises such that it was impossible for many of the firms to keep their account receivable at it minimum levels with a prospect of maximizing the profit at this period of the crisis. Mathuva (2009) researched on the management of the working capital constituents relationship with the corporate profitability with a sample of 50 firms registered and listed in the Nairobi stock exchanges between the years 1990 to 2009. The results of the study indicated a negative relationship between the profitability and the account collection period. The result was only positive in regards to the relation between the inventory conversion period and the profitability. According to Wilson, et al (1997) found a strong evidence of the impending financial demand of the trade credit using retail market in United Kingdom empirically in his study. A solution to the problem has been identified out and has been put forward to ensure smooth running of the business. The management of the credit is one of the neglected functions in many of the challenges the retail markets faces combined with the rising failing
rates creating urgency of the alternative source of the finances that should be readily available. Poor and ineffective credit management is one of the main reasons resulting to the rate payments of the impending debts Wilson et al (1995).

According to Deloof (2003) carried out a research and outlined the importance and suggest managers focus their actions on smoothing cash flows rather than necessarily utilizing accruals to smooth earnings non 1100 large non-financial firms in Belgium between year 1992-1997, he outlined that from the study that the managers can increase the performance and profitability of the firm by significantly reducing the period in receivable accounts and inventories. More notably as stipulated from his research the less non-making profit firms more significantly stretches their account payables. A study carried out by Nobanee & AlHajjar (2009) critically evaluated a sample size of 2120 non-financial firm in Japanese mainly listed in the Tokyo stock exchange between the year 1990-2005 and summarized that the firm managers can boost the firm performance and profitability by reducing the number of days of the cash conversion cycle, the period of the receivable collection and the period targeted for inventory conversion. From the analysis it is well outlined that the profitability of the firm could be increased by the extending the payable deferment period (Falope & Ajilore, 2009).

More important the firm managers ought to be more attentive and careful since extending their deferment period would result to hammering and damaging the reputation of the firm resulting to decreased performance and lowering the total return and profit of the firm in both the short and long run. The tactics of delaying supplier payment can be an inexpensive source of the firm financing since the firm will have ample time analyzing the quality of the goods bought. Significantly we should bear in minds that late payment and settling of

26
the debt can bear high significant implicit cost whenever early payment discounts are offered in return. As conferred that a significant amount of the money is locked up in the items of the working capital, higher investment in the current assets will lower the firm risks significantly lowering the entire firm profitability (Falope & Ajilore, 2009).
2.5 Conceptual Framework
A diagrammatical representation that simplifies the proposed relationship between the variables in the (Mugenda & Mugenda, 2003).

### Independent Variables

**Cash Conversion Cycle**
- Controls of purchase and sales
- Cash conversion optimal
- Identifying point of cash optimal
- Cash conversion policies

**Inventory Holding Period**
- Policies of management of inventory
- Planning of inventory
- Identifying EOQ Levels

**Accounts Receivable Period**
- Management of the debt
- Bad debt review policies.

**Payable Period**
- Policies of credit.
- Suppliers credit period setting.
- Purchase effects.

### Dependent Variables

**Profitability of retail supermarkets chains**
- ROA

**Control Variables**

**Growth in sales**

**Growth in total assets**

---

*Figure 2.1: Conceptual Framework Source: Author (2018)*
# 2.6 Summary of Literature

**Table 2.1 Summary**

<table>
<thead>
<tr>
<th>Author (Year)</th>
<th>Title</th>
<th>Findings</th>
<th>Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manoj Anand and Keshar Malhotra (2007)</td>
<td>The relationship between profitability and variables of the working capital of registered firms in India</td>
<td>Lack of positive association between profitability and items of working capital management.</td>
<td>Contextual gap as the study was not carried out in Kenya.</td>
</tr>
<tr>
<td>Reheman (2007)</td>
<td>Impact of the variable of working capital and profitability of listed firms in the stock market of the Islamabad in Pakistan</td>
<td>Negative relationship between the working capital variables measures and the profitability.</td>
<td>Study was conducted in the non-financial listed not retail supermarket chain in Kenya.</td>
</tr>
<tr>
<td>Lazaridis and Tryfonidis (2006)</td>
<td>The effect of cash conversion cycle on profitability of the listed firms in Athens stock exchange.</td>
<td>Negative correlation between profitability and cash conversion period.</td>
<td>The study was not carried out in Kenya.</td>
</tr>
<tr>
<td>Lazaridis and Dimitrios (2005)</td>
<td>The association between period of the holding inventory and the profitability of the firm</td>
<td>An adverse correlation between profitability and period of the inventory holdings.</td>
<td>The study was not conducted on retail supermarket chain in Kenya so suffered hence contextual gap</td>
</tr>
<tr>
<td>Deloof (2003)</td>
<td>Effect of duration of the receivable collection on firm profitability.</td>
<td>Diverse and negative effects of receivable period on firm profitability.</td>
<td>The study was not done in Kenya hence suffered a contextual gap</td>
</tr>
<tr>
<td>Nobanee and AlHajjar (2009)</td>
<td>The relationship of extending the payable deferment period and firm</td>
<td>Positive relationship between extending payment deferment</td>
<td>Study done on non-financial firm not retail</td>
</tr>
<tr>
<td>Mathuva (2009)</td>
<td>The correlation between variables of working capital and profitability of corporate firms listed and registered under Nairobi stock exchanges.</td>
<td>An adverse association between account collection period and profitability.</td>
<td>Study done on registered company not retail supermarkets chain</td>
</tr>
</tbody>
</table>

Source: Researcher (2018)
CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter outlines the key methodology applied in the research. It encompasses research procedures, collection method, data analysis, the population of the study, sample size, and the research design.

3.2 Research Design

Research is a causal study design, the objective of the causal study is to carry out an in-depth investigation to determine the relationship that is caused by the phenomena of the study either being a group, individual or an institution (Mugenda &Mugenda, 1999). The study aimed and sought to assess and investigate the working capital relationship with the profitability of the retail supermarkets chains in Kenya using the descriptive research design.

3.3 Population and Sample

According to Cooper and Schinder, (2003) the element of the population includes; person, organization, customer databases or the amount of the quantitative data on which measurement is being taken. The population of this study consists of eight retail supermarkets chains in Kenya as illustrated in appendix 1. The research was carried out on census survey of the entire eight-retail supermarket. The criteria used to select the eight retail supermarkets chain is; operation in major town across the country or in foreign countries, have more than ten branches across the country or internationally, have more than 200 million worth of inventories in their premises and must be ISO certified.
3.4 Data and Data Collection Methods

The research used the data of retail supermarkets chains in Kenya, the data was to cover a period of the five years from 2012-2016, the reason behind selection of this current period of the time mainly is because many supermarkets have been undergoing some financial distress and entrant of foreign supermarkets in Kenya market and some of the data are readily available despite not being archived. The research used secondary data that was obtained from financial statement of the companies.

3.4.1 Measurement of Variables

According to Miles and Huberman (1994), conceptual framework explains both in narrative and in graphical form the main issue to be researched. Conceptual frameworks cover the main features including; variables, dimensions, and aspects of the presumed relationship and their studies. It is one of the Robson argument that developing a conceptual framework enable to be explicit what the researcher is doing or he thinks. It helps to be selective and to make affirmed the decision on the importance of the relationship that is of importance and therefore outlines the data to be collected and analyzed.

This research aimed to outline and identify critical variables that influence and affect the management of the current assets and current liabilities. Selection and choice of both independent and dependent variables are facilitated by previous work and studies of the scholars. The key measure of the profitability which is the net operating profit will be the dependent variable. It is calculated by the addition of both the operating income plus total depreciation for the year divided by the total assets. Average collection period is one of the independent variables, and is a key measure of collection standard instilled in the entity.
It is the summation of the receivable being divided by the sales times number of days in a year. Secondly, turnover of the inventory in days (ITID), is an independent variable that measures inventory policy set in place. A resultant figure of the division of inventory divided by cost of goods sold times number of the day in the financial year. Thirdly, the standards measure of the payment policy, the payment period in average form is also an independent variable. Obtained by the division of payables by the purchase in the period times number of the days in the current trading period. Fourth, conversion cycle of the cash (CCC) is another independent variable that comprehensively monitors management of the current assets and current liabilities.

It's a computation of the deduction of the payment period (average) plus the collection period (average) accompanied by the inventory turnover and debt ratio both acting as the measure of leverage. The above-mentioned variables have a direct relationship that ultimately affects the management of the current assets and current liabilities. The relationship between profitability and working capital management which might be negative is expected to persist with a time lag between the raw material purchases, the expenditure, sales collection which can be elongated, eventually reducing this time lag increasing profitability.

3.5 Data Analysis and Presentation

Descriptive and inferential statistics combined with the frequencies was be used to analyze the data collected. Descriptive statistics entailed the arithmetic means and standard deviation while frequencies comprised of the percentages. Regression and correlation was to be comprised of the inferential statistics which was help to draw a causal relationship between the working capital management practices and profitability of retail chain. To
determine and assess the correlation between the independent and dependent variables the statistical package for social science (SPSS) was to be used. The model will further help in analysis of the variance (ANOVA) and regression of coefficients. Figures and tables was to be used in presentation of the data.

The general form of the regression model:

$$\text{NOP} = B_0 + B_1 X_1 + B_2 X_2 + B_3 X_3 + B_4 X_4 B_5 X_5 \ldots \ldots \ldots \ldots \ldots B_x$$

Where: $B_0, B_1, B_2, B_3, B_4, \ldots \ldots B_n$ being the measure of NOP to be estimated.

$x_1, x_2, x_3, x_4, x_5 \ldots \ldots \ldots x_n$ is ratio representation.

To ascertain, the regression model is

$$\text{NOP} = B_0 + B_1 \text{CCC} + B_2 \text{ACP} + B_3 \text{APP} + B_4 \text{ITID} + B_5 \text{GS} + B_6 \text{GTA} + e$$

Where

NOP=Net Operating Profit

ACP=Average Collection Period in Days

CCC=Cash Conversion Cycle per financial year

APP=Average payment period

ITID=Inventory Turnover in Days

GS=Growth in sales

GTA=Growth in total assets

e=Error

$b_0$ = Value of $X$ and $Y$ which are both at zero Intercept.

3.5.1 Test of Significance

The t –test of two data was mainly to examine if the two group of the data was statistically different from each other. For instance it was to help analyze if increment in profitability
was to be related with items of the working capital components or the size of the firm. The test was carried out at 5% significant levels. The results was to be termed to be significant if the value of the p is 5% or less.

3.5.2 Test of Association

Test of the association was to help in evaluation of the relationship that exist between the two variable, for instance the relationship between the profitability and the cash conversion cycle. Thus change in one variable was to result into a change to the other variable. Mainly two methods are used in testing the association as outlined below;

3.5.3 Correlation Analysis

Measuring the strength and relationship between the components of the working capital and profitability is the key goal of this study. The coefficient lied between the -1 and +1. For zero coefficients was to be termed as no association between the two variables. The positive coefficient was to indicate that an increase in one variable was to automatically result to an increase in the other variable. Whereas a negative coefficient was to indicate that an increment in one variable resulted to a decline in the other variable.

3.5.4 Multiple Regression Analysis

The linear relationship between the independent variable and dependent variable was studied using the multiple regression analysis technique by calculating the coefficient for a straight line (Hair et al., 2000).
CHAPTER FOUR

FINDINGS, PRESENTATION AND DISCUSSION

4.1 Introduction

This chapter represents analyzed data that was collected from the financial statements of the eight retail supermarkets chains between the year 2012-2016. The chapter is divided into four sections, 4.2, 4.3, 4.4 and 4.5 representing descriptive statistics, regression analysis, correlation analysis and interpretation and discussion of the findings respectively.

4.2 Descriptive Statistics

Descriptive analysis outlines the mean and the standard deviation of both the profitability and working capital management practices as measured by their individual metrics. The maximum and the minimum values are also obtained to give a clear way of what the variable can maximally and minimally achieve. As outlined in the table 4.1, the net operating profit (ROA) is 6.6% of the total assets return with a deviation of 0.06. This stipulates that the profitability can deviate to both side of the mean with 6%. The maximum and minimum value of the net profitability is between 20%-0% respectively. The chain supermarkets have a growth in total assets of 3.9% with a standard deviation of 0.3. The chains wait for 17 days to collect the receivable while the maximum time allocated for this purpose is 36 days with a standard deviation of 9 days.

The stores wait for an average of 21 days to pay for the inventories received, with a maximum time allocated of 38 days with a standard deviation of 11 days. The chains supermarkets take an average of 2 days to convert the inventories into sale with a maximum time allocated for the same of 4 days with a standard deviation 1 days. The store experienced an increment in sales of 1.2% with a standard deviation of 0.007 with a
maximum allocation of 2.5% increment. The cash conversion cycle of the retail chains supermarket was 27 days with a larger standard deviation of 65 days accompanied with a maximum of 426 days which is unusual.

**Table 4.1 Descriptive Statistics.**

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>40</td>
<td>0</td>
<td>0.2</td>
<td>0.0656</td>
<td>0.06003</td>
</tr>
<tr>
<td>GTA</td>
<td>40</td>
<td>0</td>
<td>0.09</td>
<td>0.0389</td>
<td>0.03222</td>
</tr>
<tr>
<td>ACP</td>
<td>40</td>
<td>-5</td>
<td>36</td>
<td>17.35</td>
<td>23.65</td>
</tr>
<tr>
<td>APP</td>
<td>40</td>
<td>0</td>
<td>38</td>
<td>21.55</td>
<td>11.133</td>
</tr>
<tr>
<td>ITID</td>
<td>40</td>
<td>0</td>
<td>4</td>
<td>2.453</td>
<td>1.1959</td>
</tr>
<tr>
<td>CCC</td>
<td>40</td>
<td>0</td>
<td>426</td>
<td>27.85</td>
<td>65.131</td>
</tr>
<tr>
<td>GS</td>
<td>40</td>
<td>0</td>
<td>0.025</td>
<td>0.01207</td>
<td>0.00781</td>
</tr>
</tbody>
</table>

*Source: Researcher (2018)*

It is also observable that the cash conversion cycle is 0 which stipulate that the retail supermarkets debtors observed their Payment duration to the dot which is healthy to the firm profitability (ROA), similar the supermarkets have to revisit this repayment procedure and ensure it favors them significantly. The cash conversion cycle took longer period than any other variables, this implies that the stores have a significant value of the slow moving goods and dead stock in their inventories. The minimum average collection period is zero implying that the chains had no debtors. The minimum growth in sales and growth in total assets was zero stipulate the store had no negative growth in both variable this is a positivity in the growth of ROA.
4.3 Regression Analysis

4.3.1 Fit of Model

The below table 4.2 outline the fit of the regression model used in the study of the different variable. The independence variable as indicated by the result that is; cash conversion cycle, inventory holding period’s, account receivable period, account payable period, growth in sales, growth in assets and inventory turnover in days met the desired results of the model. This can be affirmed by the R square of 0.892. This implies that the independent variables are key predictors of the dependent variables, can explain the dependent variable 89 % (profitability)

Table 4.2 Fit of Model

<table>
<thead>
<tr>
<th>Model</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>0.994</td>
</tr>
<tr>
<td>R Square</td>
<td>0.892</td>
</tr>
<tr>
<td>Adjusted R Square</td>
<td>0.876</td>
</tr>
<tr>
<td>Std. Error of the</td>
<td></td>
</tr>
<tr>
<td>Estimate</td>
<td>0.016</td>
</tr>
</tbody>
</table>

Source: Researcher (2018)

4.3.2 Analysis of Variance

The overall model was significantly fit as stipulated by the table 4.3 analysis of the variance (ANOVA). The value (p) 0.000 purport this conclusion. The reported value of p was below the standard value of the 0.05 significant level thus warrant significance in this study. This
result is a clear indication that the independence variables of the working capital management practices are clear predictor of the profitability dependent variable.

**Table 4.3 Analysis of Variance**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of square</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>0.059</td>
<td>6</td>
<td>0.01</td>
<td>4.038</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>0.081</td>
<td>33</td>
<td>0.002</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>0.141</strong></td>
<td><strong>39</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Researcher (2018)

**4.3.3 Coefficients**

The regression analysis of the coefficients is represented in the table 4.4 below, from the table there is a significant relationship between the growth in sales and the profitability (ROA). A positive relationship is observed between the account collection period and average payment period with the profitability. There is no relationship between the cash conversion cycle and the profitability. Inventory turnover in days had an insignificant relation of -0.007

The model was as follows.
NOP = B0 + B1CCC + B2ACP + B3BAPP + B4ITID + B5GS + B6GTA + E

Table 4.4 Coefficients

<table>
<thead>
<tr>
<th>Variable</th>
<th>Unstandardized Coefficients</th>
<th>Std. Error</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>0.004</td>
<td>0.018</td>
<td>2.17</td>
<td>0.830</td>
</tr>
<tr>
<td>GTA</td>
<td>-1.788</td>
<td>0.66</td>
<td>-2.708</td>
<td>0.011</td>
</tr>
<tr>
<td>ACP</td>
<td>-0.004</td>
<td>0.002</td>
<td>-2.138</td>
<td>0.040</td>
</tr>
<tr>
<td>APP</td>
<td>0.002</td>
<td>0.002</td>
<td>0.81</td>
<td>0.424</td>
</tr>
<tr>
<td>ITID</td>
<td>-0.007</td>
<td>0.019</td>
<td>-0.355</td>
<td>0.725</td>
</tr>
<tr>
<td>CCC</td>
<td>0</td>
<td>0</td>
<td>-1.218</td>
<td>0.232</td>
</tr>
<tr>
<td>GS</td>
<td>3.144</td>
<td>2.375</td>
<td>1.324</td>
<td>0.195</td>
</tr>
</tbody>
</table>

Source: Researcher (2018)

4.4 Correlation Analysis

The relationship between the two variables is indicated by the bivariate correlation below. The range is between positive 1 and negative -1. The positive 1 indicate strong relationship between the two variables while -1 stipulates a negative or adverse relationship between the two variables. The zero figure indicate lack of the relationship between the two variables. As stipulated by the below data the independent variables of the working capital management practices had a strong relationship with profitability. The growth in total assets had a least positive correlation with profitability (ROA) 0.097, and was statically significant (0.000). Inventory holding period in days had a strong positive correlation with profitability (0.997) with a significance of (0.000). Account payment had a negative relationship with profitability implying stores take much longer to pay their payables. The account receivable period had a positive relationship with profitability (-0.945) with a significance of (0.004).
### Table 4.5 Pearson’s Correlation

<table>
<thead>
<tr>
<th>Variable</th>
<th>ROA</th>
<th>GTA</th>
<th>ACP</th>
<th>APP</th>
<th>ITID</th>
<th>CCC</th>
<th>GS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>Pearson Correlation</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GTA</td>
<td>Pearson Correlation</td>
<td>0.097</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACP</td>
<td>Pearson Correlation</td>
<td>-0.945</td>
<td>-0.908</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.004</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>APP</td>
<td>Pearson Correlation</td>
<td>-0.978</td>
<td>-0.986</td>
<td>-0.968</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITID</td>
<td>Pearson Correlation</td>
<td>0.997</td>
<td>0.925</td>
<td>0.912</td>
<td>0.957</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.001</td>
<td>0.006</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CCC</td>
<td>Pearson Correlation</td>
<td>0.909</td>
<td>0.926</td>
<td>0.942</td>
<td>0.911</td>
<td>0.931</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>GS</td>
<td>Pearson Correlation</td>
<td>0.971</td>
<td>0.919</td>
<td>0.971</td>
<td>0.916</td>
<td>0.958</td>
<td>0.909</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Source:** Researcher (2018)

### 4.5 Discussion of Findings

The data obtained are a clear implication of how most of the retail supermarkets chains operate in Kenya. As observed the average net operating profit (ROA) is 6.6% with a standard deviation of 0.06. The maximum time allocation for the collection of the receivable from debtors is 36 days while the minimum is 16 days. It takes the supermarket an averages of the 3 days to sell the inventories with a standard deviation of 1 days. The
supermarket have to hold on the payment of the merchandise for an average of 22 days with a standard deviation of 11 days. The maximum time taken by the company for this is 38 days and a minimum of 0 days which is plus the suppliers since they can be able to manage their debt effectively and receive them on time days from the stores. The supermarket have an average of 28 days to convert the inventory into cash with a standard deviation of 65 days. The minimum time allocation for the cash conversion is 0 days with a maximum of 426 days which is unusual. This implies that the store stocks significant inventories that are slow moving or either dead stock.

The study also showed that the growth is expected to be 2% increment of the previous year sales with a standard deviation of 0.008. The growth in total assets is expected to increase with an average of 3% and a standard deviation of 0.003 per year. This implies that in order for the supermarket to experience a growth in sales they have to invest in the total assets to be able to boost their sales. The growth in total assets was found to have a correlation with the profitability. This concurred with a study conducted in South African firm by Beamount (2010) who outlined that growth in total assets have a great impact on the firm profitability. The low value of the cash conversion cycle as indicated by the results stipulate that the store either received payment one before they released their payment to suppliers of the merchandise. The study was found to coincide with that of Ernest and Young (2012) bearing in mind that the CCC had no relation or negative relation with ROA. Both the studies conclude that an increase in CCC result to a decrease in ROA and vice versa. More notably, all the supermarkets had a positive ROA stipulating that they were all aligned to the motive of the profit making as the sole goal of many firms.
The study outline Coefficient of determination R-square stands at 0.892 outlining that the independent variables of the working capital management practices can predict 89.2% of the dependent variable (ROA). A linear relation between the independent variable and ROA is clearly indicated by the predictor value of ANOVA which is significant shown by (Beta = 0.00). Inventory turnover in days have an adverse relationship with ROA (coefficient, -0.007, P-value 0.725). By this the stores need to reduce the inventory turning period in order to improve the profitability of the firm immensely. This was heightened in the study carried out by Mathura (2011) in a study examining the impact of WCM on profitability of listed firms in Kenya. From the study it is clear that the relationship between the average payment period and ROA is positively correlated (Coefficient, 0.002, P-value 0.424). This implies that when firms hold payment for a longer period of days the profitability of the firms will increase significantly. By this the firms will reserve the amount expected to pay their credit suppliers by improving their profitability. The result also indicate a week or no relation between the working capital management and the profitability of the firm (ROA). This meet the expectation since the firm have short conversion cycle thus can reap high profits. This was in conjunction with a study carried out by Simidi & Elly (2017) a case study of petroleum companies where they established a weak relationship between the CCC and profitability.
CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter addressed the summary incorporating the findings in conjunction with the objectives of the study. Similarly the conclusion of the variable of the study was deduced in line with the objectives. Recommendations and area for further studies were deduced.

5.2 Summary of Findings

The objective of the study was geared towards establishing the effect of working capital management practices on profitability of retail supermarket chains in Kenya. The first question the study was determined to seek to answer was, what is the effect of the cash conversion cycle on profitability of retail chain supermarkets in Kenya? The finding of the results stipulate that there was a negative no relationship correlation between the cash conversion cycle and the profitability (ROA). The relationship between the two was not statistically significant. Further, the regression analysis outline a negative relationship between the CCC and the profitability. The result outline that an increase in one unit of CCC will result to (0.000) unit increments in profitability (ROA). However the regression analysis stipulate that the cash conversion cycle was not statistically significant warranting it not to be important determinant of profitability (ROA).

The second question the study was determined to answer was, what is the effect of inventory holding period on profitability of retail chains supermarket in Kenya? The findings of the research indicates that there was a strong correlation between the inventory holding periods and profitability of the retail chains supermarket in Kenya. The regression analysis shows a strong and positive relationship between independent variable inventory holding period and
profitability (ROA). The result indicates that a decrease by one day of inventory holding period will result into 7.25% increase in profitability. The regression analysis point out that inventory holding period was statistically significant as a variable in determining profitability.

The third research question the study affirmed to determine was, what is the effect of the account receivable period on profitability of retail chain supermarket in Kenya? The results of the correlation stipulate that a strong and positive relationship between the account collection period and the profitability of the retail chains and was statistically positive. Further, the regression results stipulates a positive relationship between the account receivable period and profitability (ROA). The result go further and indicate that a reduction of one day of average collection period will result to an increase of 0.4% increment in total profitability. The findings of the regression outline that account collection period was statistically significant and hence a viable variable to determine the dependent variable profitability.

The fourth research question of the study aimed to determine, what is the effect of account payable period on profitability of retail chains supermarket in Kenya? The findings of the correlations stipulate a strong and a positive relationship between the account payable period and profitability and was statistically significant in term of statistics. The findings of the regression also outline a positive and significant relation between the findings of the account payable period and independent variable profitability. The results further indicate that an increase in one day of account payable period will result to an increase in profitability by 0.2%. The result of the regression indicated that the value of the account
Payables period was statistically significant hence was critical in determining the profitability.

5.3 Conclusions

As stipulated by the findings of the study, one can conclusively articulate that, the inventory holding period, account payable period and account collection period are key determinants of the profitability. Further one can conclude that the account collection period was satisfactory in explaining the dependent variable. It is important to note that different components of the working capital had positive and negative association with the profitability. There exist a relatively positive relation between the inventory holding period and profitability. This stipulate that the store stock both fast moving and slowing moving goods respectively. The existence of a positive relationship between the account payables period and the profitability indicates that increase in number of days holding amount payables to creditors result to an improved profitability of the stores. Also the stores should pay attention to this to avoid impairing their good reputation by being declared not creditworthiness. The average collecting period showed a positive relationship with profitability stipulating that a decrease in collection period of debt collection will significantly result to increased profitability. The shorter the cash conversion cycle the profitable the firm is, the result indicated a negative association between the cash conversion cycle and the profitability of the firm. Finally, both the growth in sales and growth in total assets indicated a strong and positive relation with profitability. For the store to generate higher profit, they need to invest in asset immensely in order to reap high. The study finally conclude that there exist a strong relationship between the working capital management practices and profitability of retail chains supermarkets in Kenya.
5.4 Recommendations

The finding of the study reveals out that the proper management of the cash and account receivable is an integral aspect in increasing sales and profitability with well managed minimization of the general cost of the firms. The management of the working capital practices have a great role in creating value to a firm. Specifically for the purpose of increasing profitability the firms need to focus more on account receivable period by minimizing it immensely. Based on the finding of the study the firms should focus on reducing the period of account receivable.

To increase the value of the firm, the management should focus on greatly reducing the cash conversion cycle and increasing the number of days of account payable with checks and balances to ensure no strained relationship with the suppliers which can impair their public image and good reputations. To gain the competitive advantages the firm should mainly focus on effective utilization of the available resources with an acute reduction of cash conversion cycle to it minimum by doing so the profitability of the firm is expected to rise continuously.

5.5 Limitations of the Study

The first limitation is that all the retail chains in Kenya are not listed. One had to rely on information well prepared and conserved in book financial statements of the retail supermarket both manually and electronic. The window of the study was to cover a period of five years from 2012-2015. To obtain all this data one had to camp in one store for longer period of time than expected due to poor data management and storage. Many the managers of the retail chain supermarket were very reluctant to avail all the data since they feared
public tarnishing or revealing their information to their competitors. One had to duly have proper introducing and well-articulated purpose of use of the data.

Because of the cost constraints the study was only focused on the retail chains in Kenya, it could be advisable if the same study was extended to other small retailers and establish whether findings hold.

The research was only limited to Kenya as a country unlike other developing nations. The finding would be more fruitful if it was extended to other neighboring countries and have grips of comparison how they take down their operations.

5.6 Suggestion for Further Study

There would be key concern if a study would be carried on the same topic, mainly concentrating on the effect of emerging information technology on variables of working capital and profitability especially in retail market. The study emphasize further study to be carried taking a concern on reduction of the years of the sample to obtain well outlined results.

Further study may focus on reducing the window of the study, with an idea of extending the scope of the study to individual variables of the working capital mainly the cash conversion cycle, accounts payable period and inventory holding period.

The researcher would ideally suggest further study to be carried out especially on agriculture, tourism industry and small and medium-sized enterprises to see whether the results holds on the same.
REFERENCES


Bardia, S.C (2004), Liquidity Management: A Case Study of Steel Authority of India Ltd, the Management Accountant, ICWAI Kolkata, June: 463-467.


APPENDICES

APPENDIX 1

LIST OF RETAIL SUPERMARKET CHAINS’ IN KENYA

1. Tuskys
2. Nakumatt Holdings
3. Naivas
4. Estmatt
5. Ukwala
6. Carrefour
7. Choppis
8. Uchumi
# APPENDIX II

## DATA CAPTURE FORM

<table>
<thead>
<tr>
<th>Participant Id</th>
<th>ROA</th>
<th>GTA</th>
<th>ACP</th>
<th>APP</th>
<th>ITID</th>
<th>CCC</th>
<th>GS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.023</td>
<td>0.09</td>
<td>28</td>
<td>30</td>
<td>3</td>
<td>22</td>
<td>0.02</td>
</tr>
<tr>
<td>2</td>
<td>0.04</td>
<td>0.09</td>
<td>30</td>
<td>36</td>
<td>2.4</td>
<td>25</td>
<td>0.025</td>
</tr>
<tr>
<td>3</td>
<td>0.19</td>
<td>0.04</td>
<td>36</td>
<td>28</td>
<td>3.2</td>
<td>21</td>
<td>0.015</td>
</tr>
<tr>
<td>4</td>
<td>0.059</td>
<td>0.04</td>
<td>18</td>
<td>26</td>
<td>3.5</td>
<td>22</td>
<td>0.016</td>
</tr>
<tr>
<td>5</td>
<td>0.048</td>
<td>0.03</td>
<td>20</td>
<td>25</td>
<td>3.4</td>
<td>20</td>
<td>0.014</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>0.084</td>
<td>0.02</td>
<td>25</td>
<td>35</td>
<td>4</td>
<td>426</td>
<td>0.013</td>
</tr>
<tr>
<td>1</td>
<td>0.023</td>
<td>0.08</td>
<td>22</td>
<td>28</td>
<td>2.9</td>
<td>23</td>
<td>0.019</td>
</tr>
<tr>
<td>2</td>
<td>0.039</td>
<td>0.09</td>
<td>25</td>
<td>38</td>
<td>2.4</td>
<td>24</td>
<td>0.015</td>
</tr>
<tr>
<td>3</td>
<td>0.192</td>
<td>0.04</td>
<td>24</td>
<td>26</td>
<td>2.9</td>
<td>21</td>
<td>0.012</td>
</tr>
<tr>
<td>4</td>
<td>0.06</td>
<td>0.04</td>
<td>22</td>
<td>25</td>
<td>3</td>
<td>23</td>
<td>0.01</td>
</tr>
<tr>
<td>5</td>
<td>0.046</td>
<td>0.02</td>
<td>18</td>
<td>24</td>
<td>3.1</td>
<td>20</td>
<td>0.009</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>0.086</td>
<td>0.02</td>
<td>15</td>
<td>34</td>
<td>3.9</td>
<td>27</td>
<td>0.01</td>
</tr>
<tr>
<td>1</td>
<td>0.026</td>
<td>0.08</td>
<td>22</td>
<td>28</td>
<td>3</td>
<td>20</td>
<td>0.021</td>
</tr>
<tr>
<td>2</td>
<td>0.042</td>
<td>0.09</td>
<td>24</td>
<td>36</td>
<td>2.5</td>
<td>21</td>
<td>0.018</td>
</tr>
<tr>
<td>3</td>
<td>0.194</td>
<td>0.05</td>
<td>15</td>
<td>26</td>
<td>2.6</td>
<td>18</td>
<td>0.018</td>
</tr>
<tr>
<td>4</td>
<td>0.064</td>
<td>0.04</td>
<td>16</td>
<td>24</td>
<td>2.7</td>
<td>20</td>
<td>0.014</td>
</tr>
<tr>
<td>5</td>
<td>0.049</td>
<td>0.03</td>
<td>20</td>
<td>22</td>
<td>2.5</td>
<td>19</td>
<td>0.013</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>0.087</td>
<td>0.02</td>
<td>14</td>
<td>30</td>
<td>3</td>
<td>26</td>
<td>0.008</td>
</tr>
<tr>
<td>1</td>
<td>0.028</td>
<td>0.09</td>
<td>20</td>
<td>25</td>
<td>3</td>
<td>18</td>
<td>0.023</td>
</tr>
<tr>
<td>2</td>
<td>0.042</td>
<td>0.09</td>
<td>24</td>
<td>30</td>
<td>2.5</td>
<td>19</td>
<td>0.016</td>
</tr>
<tr>
<td>3</td>
<td>0.19</td>
<td>0.05</td>
<td>22</td>
<td>22</td>
<td>3.1</td>
<td>20</td>
<td>0.02</td>
</tr>
<tr>
<td>4</td>
<td>0.062</td>
<td>0.04</td>
<td>20</td>
<td>21</td>
<td>3.3</td>
<td>24</td>
<td>0.015</td>
</tr>
<tr>
<td>5</td>
<td>0.05</td>
<td>0.03</td>
<td>18</td>
<td>20</td>
<td>3.4</td>
<td>25</td>
<td>0.015</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>0.07</td>
<td>0</td>
<td>14</td>
<td>18</td>
<td>3.3</td>
<td>22</td>
<td>0.005</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>0.09</td>
<td>0.02</td>
<td>12</td>
<td>28</td>
<td>2.9</td>
<td>20</td>
<td>0.005</td>
</tr>
<tr>
<td>1</td>
<td>0.029</td>
<td>0.09</td>
<td>22</td>
<td>24</td>
<td>2.8</td>
<td>18</td>
<td>0.025</td>
</tr>
<tr>
<td>2</td>
<td>0.048</td>
<td>0.09</td>
<td>26</td>
<td>28</td>
<td>2.7</td>
<td>20</td>
<td>0.012</td>
</tr>
<tr>
<td>3</td>
<td>0.196</td>
<td>0.05</td>
<td>20</td>
<td>22</td>
<td>2.9</td>
<td>22</td>
<td>0.024</td>
</tr>
<tr>
<td>4</td>
<td>0.063</td>
<td>0.04</td>
<td>21</td>
<td>22</td>
<td>3</td>
<td>24</td>
<td>0.018</td>
</tr>
<tr>
<td>5</td>
<td>0.048</td>
<td>0.03</td>
<td>22</td>
<td>20</td>
<td>2.9</td>
<td>22</td>
<td>0.019</td>
</tr>
<tr>
<td>6</td>
<td>0.08</td>
<td>0</td>
<td>18</td>
<td>21</td>
<td>3</td>
<td>25</td>
<td>0.008</td>
</tr>
<tr>
<td>7</td>
<td>0.19</td>
<td>0</td>
<td>19</td>
<td>20</td>
<td>2.7</td>
<td>19</td>
<td>0.004</td>
</tr>
<tr>
<td>8</td>
<td>0.092</td>
<td>0.01</td>
<td>22</td>
<td>20</td>
<td>2.6</td>
<td>18</td>
<td>0.004</td>
</tr>
</tbody>
</table>
APPENDIX III

T- TEST

One-Sample Test

Test Value = 0

<table>
<thead>
<tr>
<th>Variable</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>6.914</td>
<td>39</td>
<td>0.00000</td>
<td>0.065625</td>
<td>0.04643</td>
<td>0.08482</td>
</tr>
<tr>
<td>GTA</td>
<td>7.64</td>
<td>39</td>
<td>0.00000</td>
<td>0.03893</td>
<td>0.0286</td>
<td>0.0492</td>
</tr>
<tr>
<td>ACP</td>
<td>1</td>
<td>39</td>
<td>0.00000</td>
<td>17.35</td>
<td>14.4</td>
<td>20.3</td>
</tr>
<tr>
<td>APP</td>
<td>2</td>
<td>39</td>
<td>0.00000</td>
<td>21.55</td>
<td>17.99</td>
<td>25.11</td>
</tr>
<tr>
<td>ITID</td>
<td>12.97</td>
<td>39</td>
<td>0.00000</td>
<td>2.453</td>
<td>2.07</td>
<td>2.83</td>
</tr>
<tr>
<td>CCC</td>
<td>2.704</td>
<td>39</td>
<td>0.01000</td>
<td>27.85</td>
<td>7.02</td>
<td>48.68</td>
</tr>
<tr>
<td>GS</td>
<td>9.779</td>
<td>39</td>
<td>0.00000</td>
<td>0.012075</td>
<td>0.00958</td>
<td>0.01457</td>
</tr>
</tbody>
</table>

95% Confidence Interval of the Difference
# APPENDIX IV

## TESTS OF NORMALITY

<table>
<thead>
<tr>
<th>Variable</th>
<th>Statistic</th>
<th>df</th>
<th>Sig.</th>
<th>Statistic</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>0.186</td>
<td>40</td>
<td>0.001</td>
<td>0.82</td>
<td>40</td>
<td>0.000</td>
</tr>
<tr>
<td>GTA</td>
<td>0.149</td>
<td>40</td>
<td>0.026</td>
<td>0.877</td>
<td>40</td>
<td>0.022</td>
</tr>
<tr>
<td>ACP</td>
<td>0.203</td>
<td>40</td>
<td>0</td>
<td>0.865</td>
<td>40</td>
<td>0.027</td>
</tr>
<tr>
<td>APP</td>
<td>0.245</td>
<td>40</td>
<td>0</td>
<td>0.835</td>
<td>40</td>
<td>0.040</td>
</tr>
<tr>
<td>ITID</td>
<td>0.307</td>
<td>40</td>
<td>0</td>
<td>0.728</td>
<td>40</td>
<td>0.030</td>
</tr>
<tr>
<td>CCC</td>
<td>0.48</td>
<td>40</td>
<td>0</td>
<td>0.234</td>
<td>40</td>
<td>0.003</td>
</tr>
<tr>
<td>GS</td>
<td>0.114</td>
<td>40</td>
<td>0.200*</td>
<td>0.936</td>
<td>40</td>
<td>0.025</td>
</tr>
</tbody>
</table>
APPENDIX V

RESEARCH INTRODUCTION LETTER

TO WHOM IT MAY CONCERN

The bearer of this letter, Kidog Isaac N, Registration No. 261186061, is a bona fide continuing student in the Master of Business Administration (MBA) degree program in this University.

He/she is required to submit as part of his/her coursework assessment a research project report on a management problem. We would like the students to do their projects on real problems affecting firms in Kenya. We would, therefore, appreciate your assistance to enable him/her collect data in your organization.

The results of the report will be used solely for academic purposes and a copy of the same will be availed to the interviewed organizations on request.

Thank you.

[Signature]

11 SEP 2018

PROF. JAMES M. NJIHIA
DEAN, SCHOOL OF BUSINESS