

**RELATIONSHIP BETWEEN WORKING CAPITAL MANAGEMENT
AND PERFORMANCE OF PUBLIC HEALTH CENTRES:
A CASE OF UGENYA SUB – COUNTY**

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**A RESEARCH PROJECT REPORT SUBMITTED IN PARTIAL
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ABSTRACT

Working capital management relates to daily organization's operations. From the literature review, there is relationship between working capital management and performance of organizations for profit. However, no known study has linked working capital management with performance of public health centers. Previous studies in working capital management have just delved on its relationship with profitability and firm value. No available study has singled out the elements of working capital management like accounts payable days and accounts receivable days and investigated their effect on efficiency and liquidity as measures of financial performance. These relationship is therefore not known in the context of public health centers in Ugenya Sub County. The purpose of this study was to establish the relationship between working capital management and financial performance of public health centers in Ugenya sub-county. Specific objectives of the study were to establish the effect of accounts payable on financial efficiency of the public health Centre and to determine how accounts receivable days affect liquidity of the public health centers. The study adopted a correlation survey design. The target population was nine facility administrators in the nine Ugenya sub county public health centers taken through a census survey. A pilot study was carried on one health facility administrator representing ukwala health center. Primary data for the study was obtained through structured questionnaires while secondary data obtained from document review. The results showed that the accounts payable days with unstandardized beta coefficient and p value of $\beta = -0.303$, $p < .05$ meaning that accounts payable significantly affects financial efficiency of public health centers in Ugenya sub county. This relationship implies that when the number of days in which creditors are paid is reduced, the financial efficiency of these health centers increases meaning that their degree of efficiency in using labor, management and capital is increased as a result. The study further revealed that accounts receivable days had unstandardized beta coefficient of p values of $\beta = -0.858$, $p < .05$. This means the beta coefficients, β , which is the degree to which the independent variables each explain the dependent variable, is negative and significant. The standardized β coefficient of accounts receivable days shows that a unit standard deviation of accounts receivable days causes -8.58 standard deviations in liquidity of the health centers in Ukwala sub-County. This implies that when the number of days in which debtors are supposed to repay the debts they owe the public health centers is reduced, their liquidity increases meaning that their ability to meet their financial obligations is enhanced as a result of prompt collection of debts from debtors. Finally, it was established that the correlation between accounts payable days, accounts receivable days and liquidity was negative with correlation coefficients of -0.583, -0.633 and -0.442 respectively. This implies that an increase in the accounts payable days, accounts receivable days and average stock would automatically lead to a decrease in the liquidity of public health centers in Ugenya sub-county. The study recommended that the public health facilities should settle their bills to services offered or goods supplied promptly as this will enhance their financial efficiency and will curb the errors of overpayment to suppliers as a result of accrued bills.

CHAPTER ONE

INTRODUCTION

This chapter sets the background to the study, statement of the research problem, study objectives, research questions, scope, justification and the conceptual framework.

1.1 Background of the Study

Management of working capital which aims at maintaining an optimal balance between each of the working capital components, that is, cash, receivables, inventory and payables is a fundamental part of the overall corporate strategy to create value and is an important source of competitive advantage in businesses (Deloof, 2003). In practice, it has become one of the most important issues in organizations with many financial executives struggling to identify the basic working capital drivers and the appropriate level of working capital to hold so as to minimize risk, effectively prepare for uncertainty and improve the overall performance of their businesses (Lamberson, 1995). Efficient working capital management involves planning and controlling current assets and current liabilities in a manner that eliminates the risk of inability to meet due short term obligations on the one hand and avoid excessive investment in these assets on the other hand (Eljelly, 2004).

The goal of working capital management is to ensure that organizations are able to continue with their daily operations and have sufficient cash to meet maturing short – term debt and upcoming operational expenses (Pandey, 2003)

Primary funding for healthcare comes from three sources: public, private (consumers) and donors. Consumers are the largest contributors, representing approximately 35.9 percent, followed by the government of Kenya and donors at 30 percent each. Over the past few years, government financing as a percentage of GDP has been consistent at slightly above four percent. A regional comparison of the total health budget as a percentage of GDP shows that Kenya ranks last, behind Rwanda, Tanzania and Uganda (Byl, Punia & Owino, 2013). The above budget allocations are used to facilitate both fixed and working capitals of the sector. The capital structure at all levels of healthcare system in Kenya is generally the same except in volumes. However, it is

the working capital which has immediate impact on daily operations. Organization's performance depends on how well it manages both internal and external funding. Internal funding are the internally generated revenues from the services offered to clients. External funding usually are grants from the governments and others partners. The management of working capital involves management of cash, stock, receivables and payables. Byl, Punia and Owino findings are on general healthcare system with no specific talk on of Public Health Centers operations.

In Kenya, approximately 78 percent of Kenyans live in rural areas, yet a disproportionate share of healthcare facilities are located in urban areas. People in rural areas often have to travel long distances, often on foot, to seek care. According to the World Bank, the index of access to health services (measuring the share of newborns delivered at a health facility) in Kenya, speaks volumes to this disparity. For example, over eight in ten children born in Kirinyaga County, which is located in the central part of the country, are delivered in a health facility. In Wajir, which is located in one of the most remote and marginalized regions of the country, one child in twenty is born in a health facility (Leon, 2013)

Anindya (1987) found out that working capital management is a critical management issue for growing businesses of medical practices. Taking an example of a growing doctor's office, expenses rise with patient-load increases. Anindya suggests the strategies of cash sales, short operating cycle, debt collections, optimal equipment, out sourcing, inventory management are key to good working capital management. He suggests the following strategies for cash management. The first strategy is to get payment immediately. Looking at the most obvious area of accounts receivable, it is important to note that receivables tie cash .While profit margins may look better because of a lot of many invoice sales; essentially it is all loaned out to clients. Insurance payers are particularly adept at prolonging the time for payment; they realize that the longer they take to pay, the greater their profit margins. The Second strategy of cash management is to shorten cash operating cycle .Cash operating cycle starts when cash is taken out of business account to begin work for a client, and ends the day the client makes payment. For example, If a project is completed on Tuesday, but not invoiced until the following Friday-or even the end of the month, days of

income are lost. Since cash is needed in the bank accounts and not just in profit margins, minimization of the time between service rendered and service invoiced is appropriate. Although Anindya talks of working capital at the healthcare system, it is not specific on the public health centers which has its unique features.

Working Capital management is improved by introducing an automated revenue cycle management solution for healthcare providers that is designed to improve efficiency and helps address issues such as determining patient eligibility, collecting payments at the point of service, generating accurate claims, managing refunds and collections. As healthcare providers strive to improve the management of their Organization's revenue cycle, priorities can shift quickly. Whether the issue shifts from generating accurate patient claims to determining where to invest working capital, it is important for providers to select a partner that can assist them with all of the important matters that may materialize, (Byl, Punia & Owino, 2010) Ensuring that sufficient liquid resources are maintained is a matter of working capital management. This involves achieving a balance between the requirement to minimize the risk of insolvency and the requirement to maximize the return on assets. An excessively conservative approach to working capital management resulting in high levels of cash holdings will harm profits because the opportunity to make return on the assets tied up as cash will have been missed.

Turning existing equipment into cash also helps in improving working capital management. Keeping current with technology improvements are constant and necessary to remain competitive. Leasing is a way to stay up-to-date without incurring the charges of frequently buying new equipment. Considering leasing equipment that is already owned and not being used at the moment may be prudent. Another strategy is selling equipment to a leasing company, and leasing it back from them, this way, cash is generated for business, (Byl, Punia & Owino, 2010). As can be seen from the foregoing, public health centers are not well captured in the discussion.

Globally, there have been reports of economic challenges. Equally, there have been double dip recessions in many parts of the world and even an unprecedented triple dip recession for some. These factors are directly affecting the availability of debt finance

and businesses' ability to secure it. If they are to survive and grow, they need to be more innovative in their approach to their financing activities. For many, a deep delve into their working capital is likely to be the best way to manage this challenge. In this uncertain economy, one thing that is clear is that the current turbulent economic conditions are likely to remain for some time and with the limited availability of debt finance, the need to maintain low levels of working capital is becoming ever more important. What was seen by some as an unusual, temporary period of hardship may actually be the 'new normal' and is likely to remain so for several years to come. Over the last few years we have seen ongoing growth in the Far East and other emerging markets. This phenomenon has started to drive a change to a more global supply chain model as more and more products are manufactured in these territories. The result is increased transit and buffer stocks due to the long and variable delivery lead times and shorter payment terms, especially when buying from China. Consequently, there is increased pressure on working capital in the West and working capital is rising fast up the corporate agenda. During this period we have seen some businesses try to ride out the storm, relying on the good will of suppliers and lenders, whilst others have taken the opportunity to take decisive action to reduce working capital. But how many of these companies have viewed these actions as a long term solution? Those businesses that have taken short term measures to shore up their balance sheets must now explore ways of providing sustainable changes to business practices that will make them leaner and fitter to weather this ongoing period of uncertainty Management of Creditors. (Byl,Punia & Owino, 2010). How these economic challenges affect performance of public health centers are not underscored.

Empirically whereas Lazaridis and Tryfonidis (2006) investigated relationship between accounts receivables management and corporate profitability, Raheman and Nasr (2007) investigated relationship between cash conversion cycle and its components Afza and Nazir (2009) on the other hand made an attempt to investigate the traditional relationship between receivables management policies and a firm's profitability. Asiedu and Ebenezer (2013) in the study on the relationship between working capital management and profitability of listed manufacturing companies in Ghana found out that, the major component of working capital management such as

inventory days, account payable and cash conversion cycle have influence on the profitability of manufacturing companies.

Yaghoob Nejad *et al.* (2010) scrutinized the relationship between working capital management and profitability the results also showed that increase in accounts collection period, accounts payable period, inventory turnover period and cash conversion cycle negatively impacted profitability. Waweru (2011) in the study of the relationship between working capital management and the value of companies quoted at the Nairobi stock exchange concluded that there is a negative relationship between average cash collection period, inventory turnover in days, cash conversion cycle and value of the firm existed. It further indicated a positive relationship between value of the firm and average payment period.

Waithaka (2012) investigated the relationship between working capital management practices and financial performance of agricultural companies listed at the Nairobi securities exchange.

The correlation analysis revealed that there a negative relationship existed between the accounts collection period and financial performance, the result suggested that firms can improve their profitability by reducing the number of days accounts receivable are outstanding.

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Mathuva (2010) in his study on the influence of working capital management on corporate profitability found that there exists a highly significant negative relationship between the time it takes for firms to collect cash from their customers and profitability. Gakure *et al.* (2012) studied the relationship between working capital management and profitability, the results found a strong negative relationship between a firm's performance and its liquidity. The study further indicated a negative co-efficient relationship between average payables period, accounts collection period, inventories holding period and profitability and finally, Waweru (2011) carried out a study on the relationship between receivables management and the value of companies quoted at the NSE. It is therefore clear that the previous studies were the works above are more inclined towards the effect of accounts receivables and

accounts payable on profitability and firm value. The studies are inconclusive in the way they address the content of accounts receivables and accounts payable and how it affects firm's liquidity and financial efficiency. They do not clarify for example the effect of accounts receivables on liquidity neither do they clarify the effect of accounts payable on financial efficiency. None of the studies reviewed also investigated the relationship between working capital and financial performance as they are more inclined towards profitability as a measure of financial performance. These remain unknown particularly in public health centers in Ugenya Sub County.

1.1.1 Financial Performance

Finance always being disregarded in financial decision making since it involves investment and financing in short-term period. Further, also act as a restraint in financial performance, since it does not contribute to return on equity (Rafuse, 1996). A well designed and implemented financial management is expected to contribute positively to the creation of a firm's value (Padachi, 2006). Dilemma in financial management is to achieve desired trade-off between liquidity, solvency and profitability (Lazaridis, 2006). The subject of financial performance has received significant attention from scholars in the various areas of business and strategic management. It has also been the primary concern of business practitioners in all types of organizations since financial performance has implications to organization's health and ultimately its survival. High performance reflects management effectiveness and efficiency in an organization.

Liquidity measures the ability of the business to meet financial obligations as they come due, without disrupting the normal, ongoing operations of the business. Liquidity can be analyzed both structurally and operationally. Structural liquidity refers to balance sheet measures of the relationships between assets and liabilities and operational liquidity refers to cash flow measures. Solvency measures the amount of borrowed capital used by the business relative the amount of owner's equity capital invested in the business. In other words, solvency measures provide an indication of the business' ability to repay all indebtedness if all of the assets were sold. Solvency measures also provide an indication of the business 'ability to withstand risks by

providing information about the operation's ability to continue operating after a major financial adversity (Harrington and Wilson, 1989).

Financial efficiency measures the degree of efficiency in using labor, management and capital. Efficiency analysis deals with the relationships between inputs and outputs. Because inputs can be measured in both physical and financial terms, a large number of efficiency measures in addition to financial measures are usually possible (Tangen, 2003).

1.1.2 Public Health Centers

Public health centers are generally charged with the responsibility of primary health care which is characterized by the presence of the local communities, uncomplicated medical cases, and prevention rather than curative approach.

1.1.2.1 Public Health Centers Globally

Despite existing for over 40 years, Community Health Centers (CHCs) in Ontario, Canada tend to be health care visionaries. The CHC approach to health care is on keeping people healthy as oppose to treating them when they are ill. Clients include the uninsured, underinsured, low-income earners or those living in areas where little access to primary health care is available. Most CHC's consist of an interdisciplinary team of health care providers using electronic health records. Community Health Centers in the United States of America (USA) are neighborhood health centers generally serving Medically Underserved Areas (MUAs) which includes persons who are uninsured, underinsured, low-income earners or those living in areas where little access to primary health care is available. Largely federally and locally funded, some health clinics are surprisingly modernized with new equipment and electronic medical records. In China there are, as of 2011, 32,812 community health centers and 37,374 township health centers. These facilities meet the need for primary health care in China. Many citizens first get their healthcare service at these points. Complicated cases are diagnosed and later referred to higher levels of the healthcare system. In Ethiopia, a four-tiered system of care facilities was created – national referral hospitals, regional referral hospitals, district hospitals and, lastly, primary healthcare facilities. The primary facilities are charged more with prevention rather than curative

approaches. The primary health care facilities meet the need of the local communities by provision of healthcare education, prevention intervention among others. (Bhalla and Nhjk , 2001).

1.1.2.2 Public Health Centers in Kenya

In Kenya, health leadership is provided by the Ministry of Health (MOH). The new MOH is the result of a merger between the Ministry of Medical Services and the Ministry of Public Health and Sanitation that, until early 2013, were responsible for the health sector. Key mandates of the MOH are: Development of national policy, Provision of technical support at all levels, monitoring quality and standards in health services provision, Provision of guidelines on tariffs for health services and conducting studies required for administrative or management purposes The ministry categorizes healthcare system in Kenya into four-tiers in the areas of community health services, primary care services, county referral services and national referral services. Community health services is comprised of all community-based demand creation activities, that is, the identification of cases that need to be managed at higher levels of care, as defined by the health sector. Primary care services are comprised of all dispensaries, health centers and maternity homes for both public and private providers. County referral services are hospitals operating in, and managed by a given county and are comprised of the former level four and district hospitals in the county and include public and private facilities. Finally, national referral services are comprised of facilities that provide highly specialized services and include all tertiary referral facilities. The counties are responsible for three levels of care: community health services, primary care services and county referral services. The national government has responsibility for national referral services. (Byl,Punia & Owino,2013).

At county level, Muga (1998) proposes the formation of county's health departments whose role will be to create and provide an enabling institutional and management structure responsible for coordinating and managing the delivery of healthcare mandates and services at the county level. In addition to the county health departments, the policy calls for the formation of county health management teams (CHMTs). These will provide professional and technical management structures in

each county to coordinate the delivery of health services through health facilities available in each county. At the Sub County level, the first two tiers of health devolution are managed. These two tiers are closely tied to the community. Public health centers bear the weight of the immediate health problems as they arise.

1.2 Statement of the Problem

Sound working capital management is crucial to the survival, economic, efficient and effective operations of organizations. Liquidity problem arise when there is imbalance in working capital structure and particularly when current assets are committed to paying long term liabilities since the goal of working capital management is to ensure that organizations are able to continue with their daily operations and have sufficient cash to meet maturing short –term debt and upcoming ones. Previous studies in working capital management have just delved on its relationship with profitability and firm value. No available study has singled out the elements of working capital management like accounts payable days and accounts receivable days and investigated their effect on efficiency and liquidity as measures of financial performance. These relationship is therefore not known in the context of public health centers in Ugenya Sub County.

1.3 Research Objectives

The main objective of this study was to examine effect of working capital management on the performance of Public health centers in Ugenya Sub County.

Specifically the study seeks to:

- i. Establish the effect of accounts payable on financial efficiency of public health centers in Ugenya sub- County.
- ii. Determine how receivable affect liquidity of public health centers in Ugenya sub-county.
- iii. Establish the relationship between working capital management and financial performance of public health centers in ugenya sub-county.

1.4 Research Questions

The following research questions have been formulated for empirical testing to help achieve the objective of the study:

- i. What is the effect of accounts payable on financial efficiency of public health centers in Ugenya sub- County?
- ii. What is the effect of accounts receivables on liquidity of public health centers in ugenya sub-county?
- iii. What is the relationship between working capital management and financial performance of public health centers in Ugenya sub-county?

1.5 Scope of the Study

The study was limited to the investigation of working capital management and how they relate with the financial performance of public health centers in Ugenya sub-county. The study also focused on all the ten Public Health Centers in Ugenya sub-county. However, of the ten facilities, Ukwala was used in piloting. These facilities are known to be high volume and have been in operation for at least three years from 2011 to 2013. The study focused on the accounts payables and receivables. Ugenya Sub-County is both an administrative and a political unit. This study was based on semi-urban set up which is increasingly experiencing a high number of patients turn out from the rural communities.

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1.6 Justification of the Study

The study is important to the Ugenya – Sub county health management team because the information gathered can help in strengthening the effective and efficient management of the public health facilities through improved strategies of working capital management. The county government of Siaya may also benefit since the study intends to highlight some weaknesses on working capital management strategies at the sub- county but may be scaled up to the entire county level. The study will be useful to other researchers and scholars as a guide particularly when carrying out similar research in other areas and institutions other than the Ugenya – Sub County.

1.7 Conceptual Framework

Working capital management involves planning and controlling of current assets and current liabilities. For health care facility to provide quality service delivery, it has to improve on management of its liquidity position, stock levels, accounts receivables and payables. The facilities administrators have to design service delivery policies and carefully implement them so that the cash receipts and expenditures are well balanced to avoid waste and extravagance. Below is a conceptual framework that helped to guide in the study.

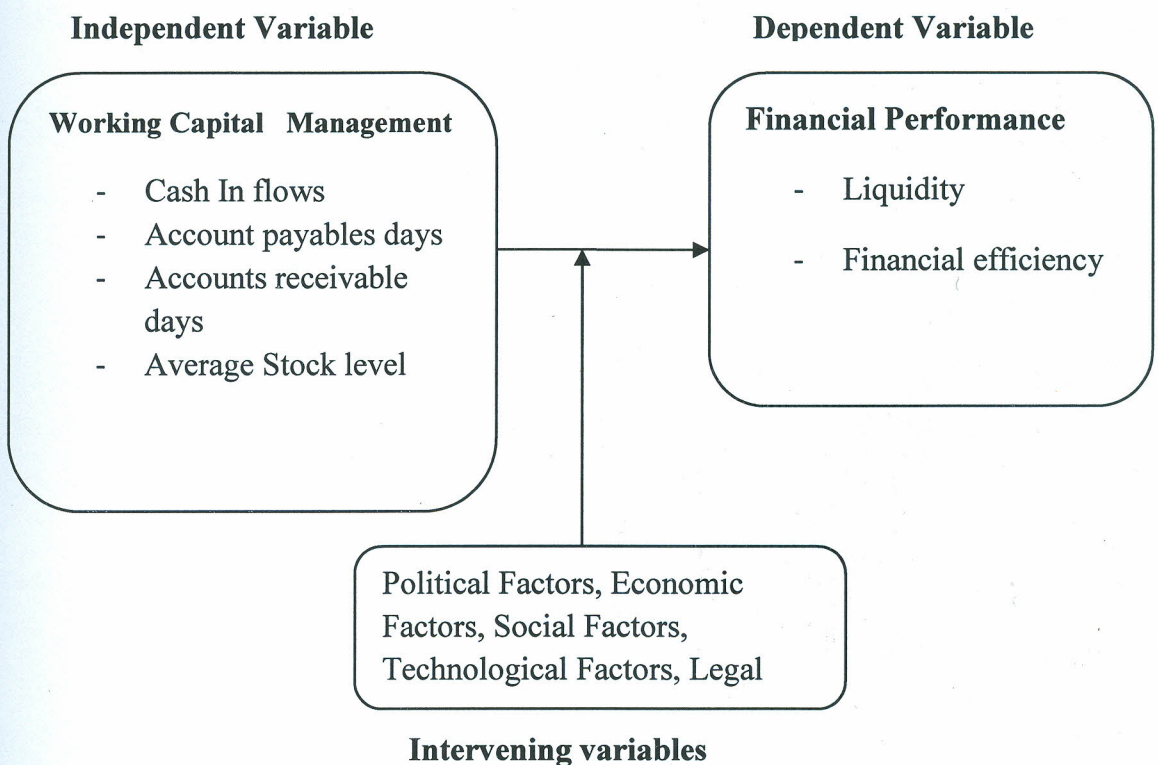


Fig 1.1: Relationship between working capital management and financial performance

Source: Adapted from (Weston and Eugene, 1979, Richards and Laughlin, 1980).

The purchase policies affect the level of cash, accounts payables and stock levels. The service provision (sales) also affects the level of cash, accounts receivables and stock levels. This therefore calls for a prudent management strategies to enhance adequate liquidity and hence overall potential for high financial performance. (Pandey, 2010).

The performance indicators adopted for this study included liquidity, return on assets and financial efficiency.

Intervening factors such as regional politics, economic status of the households, social factors at cultural level, technological advancements in different facilities, and legal framework of the healthcare systems all have some effect in this study and their management and control is important.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter looks at a review of issues and factors that have been explored and studied in the existing literature on working capital management and organizational performance and examine the existing gaps.

2.1. Theories of working capital management

The theories that this study is anchored on are operating cycle theory, Trade off theory and conservative plan theory which are discussed below:

2.1.1 Operating Cycle Theory

The flow concept of liquidity can be developed by extending the static balance sheet analysis of potential liquidation value coverage to include income statement measures of a firm's operating activity. In particular, incorporating accounts receivable and inventory turnover measures into an operating cycle concept provides a more appropriate view of liquidity management than does reliance on the current and acid-test ratio indicators of solvency. These additional liquidity measures explicitly recognize that the life expectancies of some working capital components depend" upon the extent to which three basic activities- production, distribution (sales), and collection - are non-instantaneous and un-synchronized (Weston and Eugene, 1979). Accounts receivable turnover is an indicator of the frequency with which a firm's average receivables investment is converted into cash. Changes in credit and collection policy have a direct impact on the average outstanding accounts receivable balance maintained relative to a firm's annual sales. Granting more liberal terms to a firm's customers creates a larger, and potentially less liquid, current investment in receivables. Unless sales increase at least proportionately to the increase in receivables, this potential deterioration in liquidity will be reflected in a lower receivables turnover and a more extended receivables collection period. Decisions that commit a firm to maintaining larger average receivables investments over a longer time period will inevitably result in higher current and acid-test ratios (Richards and Laughlin, 1980).

Inventory turnovers depict the frequency with which firms convert their cumulative stock of raw material, work-in-process, and finished goods into product sales. Adopting purchasing, production scheduling, and distribution strategies that require more extensive inventory commitments per dollar of anticipated sales produces a lower turnover ratio. This, in turn, reflects a longer and potentially less liquid inventory holding period. If firms cannot modify either the payment practices established with trade creditors or their access to short-term debt financing provided by non-trade creditors, decisions that create longer or less liquid holding periods will again be accompanied by a higher current ratio indicator of solvency (Weston and Eugene, 1979).

The cumulative days per turnover for accounts receivable and inventory investments approximates the length of a firm's operating cycle. Incorporating these asset turnovers into an operating cycle concept of the current asset conversion period thereby provides a more realistic, although incomplete, indicator of a firm's liquidity position. The operating cycle concept is deficient as a cash flow measure in that it fails to consider the liquidity requirements imposed on a firm by the time dimension of its current liability commitments. Integrating the time pattern of cash outflow requirements imposed by a firm's current liabilities is as important for liquidity analysis as evaluating the associated time pattern of cash inflows generated by the transformation of its current asset investments (Richards and Laughlin, 1980).

2.1.2 Trade-off Theory

Under perfect capital market assumptions, holding cash neither creates nor destroys value. The firm can always raise funds from capital markets when funds are needed, there are no transaction costs in raising these funds, and the funds can always be raised at a fair price because the capital markets are assumed to be fully informed about the prospects of the firm (Myers, 2003). The trade-off theory suggests that firms target an optimal level of liquidity to balance the benefit and cost of holding cash. Eljelly (2004) adds that firms save transaction costs to raise funds and do not need to liquidate assets to make payments. Moreover, the firm can use liquid assets to finance its activities and investment if other sources of funding are not available or are extremely expensive.

According to Eljelly (2004), the concern of business owners and managers all over the world is to devise a strategy of managing their day to day operations in order to meet their obligations as they fall due and increase profitability and shareholder's wealth. The importance of liquidity management as it affects corporate profitability in today's business cannot be over emphasis. The crucial part in managing working capital is required maintaining its liquidity in day-to-day operation to ensure its smooth running and meets its obligation (Eljelly, 2004). Liquidity plays a significant role in the successful functioning of a business firm. A firm should ensure that it does not suffer from lack-of or excess liquidity to meet its short-term compulsions (Bhunia, 2010): The dilemma in liquidity management is to achieve desired trade-off between liquidity and profitability (Raheman and Nasr, 2007).

According to Charitou *et al.* (2010), management of current assets and current liabilities is important in creating value for shareholders. If a firm can minimize its investment tied up in current assets, the resulting funds can be invested in value-creating projects, thereby increasing the firm's growth opportunities and shareholders' return. Filbeck and Krueger (2005) point out that the ability of financial managers to effectively manage receivables, inventories, and payables has a significant impact on the success of the business. If capital invested in cash, trade receivables, or inventories is not sufficient, the firm may have difficulty in carrying out its daily business operations. Charitou *et al.* (2010) emphasize the trade-off between liquidity and profitability when they argue that working capital management can play an essential role not only in a firm's profitability and risk, but also in its value.

2.1.3 Conservative Plan theory

This theory explains that the cost of financing working capital is equal to the cost of long term fund that is annual average loan multiplied by long term rate of interest. Fixed and part of current assets are financed by long term funds as permanent and long term sources are more expensive leading to lower risk return. (Horne and Wachowitz, 1998); Efficiency in working capital is vital especially for production of firms whose assets are current as it directly affects liquidity and profitability of any firm. This theory very much uses the 'play it safe' philosophy. It attempts to provide sufficient long term financing to cover all anticipated eventualities. The conservative

theory implies relatively high investment in current assets in relation to sales, the current assets to sales ratio will be comparatively high and assets and turnover ratio will be low.

This approach does not use short term borrowing and may in the long run be more expensive as the available funds may turn out not to be fully utilized in certain periods but interest on those funds not needed still accrue and are paid. Raheman and Bluementhal (1994) firms are required to use accurate measures on working capital even though their profitability may be positive.

2.2 The Concept of Working Capital management

Working capital management involves managing the firm's cash, inventory, receivables and payables in order to achieve a balance between risk and returns and thereby contribute positively to the creation of a firm value. Excessive investment in inventory and receivables reduces the profit, whereas too little investment increases the risk of not being able to meet commitments as and when they become due. The working capital includes all the items shown on a company's balance sheet as short term or current assets, while net working capital excludes current liabilities. These measures are considered useful tools in accessing the availability of funds to meet current operations of companies. Therefore, the importance of maintaining an appropriate level of working capital and its contribution to business survival is a concept that should be understood by every company (Harris, 2005).

Working capital is considered as the life-blood of any business and its performance has significant impact on the overall performance of the concerned firms. Hampton (1989) stated that working capital policy is a function of two decisions: the appropriate level of investment in current assets and the chosen methods of financing the investment. He explained further that the level of company's current assets and working capital, in respect of the company's total corporate structure and flow of funds is a tradeoff between profitability and risk. Thus, if there were little risk, an aggressive working capital would be used whereby the company should maintain a minimum level of cash, securities, debtors and stocks. However, if there is little

stability, a more conservative policy will be called for, requiring high cash balances and high stock reserves.

In many organizations today, liquidity position is thus a major issue that must be put into consideration by financial managers. This liquidity state can be identified by their risk-return characteristics (Weinraub and Visscher, 1998). Therefore, risk and return tradeoffs are inherent in alternative working capital policies. High risk, high return working capital investment and financing strategies are referred to as aggressive; lower risk and return strategies are called moderate or matching; still lower risk and return is called conservative (Moyer, 2005; Pinches 1991; Brigham and Gapenski, 1987). A firm may choose an aggressive working capital management policy with a low level of current assets as percentage of total assets, or it may also be used for the financing decisions of the firm in the form of high level of current liabilities as percentage of total liabilities (Afza and Nazir, 2007). Keeping an optimal balance among each of the working capital components is the main objective of working capital management. Business success heavily depends on the ability of the financial managers to effectively manage receivables, inventory, and payables (Filbeck and Krueger, 2005). Khan and Jain (2007) also stress that working capital management is concerned with the problems that arise in attempting to manage the current assets, the current liabilities and the interrelationship that exists between them. Working Capital Management involves the relationship between a firm's short-term assets and short-term liabilities. The goal of working capital management is to ensure that the firm is able to continue its operations and that it has sufficient cash flow to satisfy both maturing short-term debt and upcoming operational expenses. Another goal of working capital management is to manage the firm's current assets and liabilities in such a way that satisfactory level of working capital is maintained in the business.

2.2.1 Receivables Management

Provision of trade credit is normally used by businesses as a marketing strategy to expand or maintain sales (Pandey, 2004). Efficient receivables management augmented by a shortened creditor's collection period, low levels of bad debts and a sound credit policy often improves the businesses' ability to attract new customers and accordingly increase financial performance hence the need for a sound credit

policy that will ensure that value is optimized (Lazaridis and Dimitrios, 2005). Costs of cash discounts and costs of managing credit and credit collections constitute the carrying costs associated with granting a credit which increase when the amount of receivables granted are increased. Lost sales resulting from not granting credit constitute the opportunity cost which decrease when the amounts of receivables are increased (Lazaridis and Dimitrios, 2005).

Michalski (2007) provides that an increase in the level of accounts receivables in a firm increases both the net working capital and the costs of holding and managing accounts receivables and both lead to a decrease in the value of the firm. Lazaridis and Dimitrios (2005) argue that firms who pursue increase in their accounts receivables to an optimal level increase their profitability resulting from increased sales and market share. Juan and Martinez (2002) emphasize that firms can create value by reducing their number of days of accounts receivable, while Deloof (2003) writes that the length of receivables collection period has a negative effect on a firm's performance. Sushma and Bhupesh (2007) also affirm that, putting in place a sound credit policy ensures proper debt collection procedures and is pivotal in improving efficiency in receivables management hence the performance of firms.

2.2.1.1 Accounts Receivables management and Financial Performance

Efficient receivables management augmented by a shortened creditor's collection period, low levels of bad debts and a sound credit policy often improves the businesses' ability to attract new customers and accordingly increase financial performance hence the need for a sound credit policy that will ensure that value is optimized (Lazaridis and Dimitrios, 2005). Costs of cash discounts and costs of managing credit and credit collections constitute the carrying costs associated with granting a credit which increase when the amount of receivables granted are increased. Lost sales resulting from not granting credit constitute the opportunity cost which decrease when the amounts of receivables are increased (Lazaridis and Dimitrios, 2005).

Michalski (2007) provides that an increase in the level of accounts receivables in a firm increases both the net working capital and the costs of holding and managing

accounts receivables and both lead to a decrease in the value of the firm. Lazaridis and Dimitrios (2005) argue that firms who pursue increase in their accounts receivables to an optimal level increase their profitability resulting from increased sales and market share. Juan and Martinez (2002) emphasize that firms can create value by reducing their number of days of accounts receivable, while Deloof (2003) writes that the length of receivables collection period has a negative effect on a firm's performance. Sushma and Bhupesh (2007) also affirm that, putting in place a sound credit policy ensures proper debt collection procedures and is pivotal in improving efficiency in receivables management hence the performance of firms.

Provision of trade credit is normally used by businesses as a marketing strategy to expand or maintain sales (Pandey, 2004). Efficient receivables management augmented by a shortened creditor's collection period, low levels of bad debts and a sound credit policy often improves the businesses' ability to attract new customers and accordingly increase financial performance hence the need for a sound credit policy that will ensure that value is optimized (Lazaridis and Dimitrios, 2005). Costs of cash discounts and costs of managing credit and credit collections constitute the carrying costs associated with granting a credit which increase when the amount of receivables granted are increased. Lost sales resulting from not granting credit constitute the opportunity cost which decrease when the amounts of receivables are increased (Lazaridis and Dimitrios, 2005).

Ross, *et al* (2007) observed further that the business faces a risk of reduced cash flow because it may wait for customer payments which reduce the ability to purchase replacement products from suppliers; many businesses consider debtor finance to reduce the risk. He also asserts that the risk of reduced profit margin and its cost only shows up in the business profit and loss statement. He further says that this must be taken into consideration when business is pricing its products and services

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shows up in the business profit and loss statement. He further says that this must be taken into consideration when business is pricing its products and services.

According to Aaron and Namoi (2004) firms suffer from cash flow problems as a result of poor accounts receivable management practices. Narasimhan and Murty (2001) stress on the need for businesses to improve their return on capital employed (ROCE) by focusing on critical areas such as accounts receivable management and improving working capital efficiency. Firms in an industry that has less competition would focus on minimizing the receivable to increase the cash flow. For firms in industry where there are large numbers of suppliers of materials, the focus would be on maximizing the payable. One of the earlier studies done by Jose, Lancaster and Stevens(1996) for the twenty-year period from 1974 through 1993 of 2,718 firms offers strong evidence that aggressive receivables management policies indicated by shorter cash conversion cycle enhance profitability.

Lazaridis and Tryfonidis (2006) also investigated relationship between accounts receivables management and corporate profitability for the firms listed in Athens Stock Exchange for a sample of 131 listed companies. The researcher used the company financials from 2001-2004 for the study. The results of the study of regression analysis showed that there was a statistically significant relationship between gross operating profit, a measure of profitability and the cash conversion cycle. They suggested that by optimizing the cash conversion cycle the managers could create value for the shareholders. Results of empirical analysis show that there is statistical evidence for a strong relationship between the firm's profitability and its receivables management efficiency.

Raheman and Nasr (2007) also investigated relationship between cash conversion cycle and its components by taking a sample of 94 firms listed on Karachi Stock Exchange for a period of six years from 1999-2004. He investigated that cash conversion cycle is negatively related to net operating profit which is a measure of profitability. Similar relationship was observed for average collection period, inventory turnover in days, and average payment period. At company level it was observed that cash gap (cash conversion cycle) is more important as measure of

liquidity than the current ratio as measure of liquidity that affects profitability. At industry level it was observed that size has significant effect on profitability.

Afza and Nazir (2009) made an attempt to investigate the traditional relationship between receivables management policies and a firm's profitability for a sample of 204 non-financial firms listed on Karachi Stock Exchange (KSE) for the period 1998-2005. The study found significant difference among their receivables requirements and financing policies across different industries. Moreover, regression results found a negative relationship between the profitability of firms and the degree of aggressiveness of receivables investment and financing policies.

Finally, Waweru (2011) carried out a study on the relationship between receivables management and the value of companies quoted at the NSE. The study used secondary data obtained from annual reports and audited financial statements of companies listed on the NSE. A sample of 22 companies listed on the NSE for a period of seven years from 2003 to 2009 was studied. The 27 average stock price was used to measure the value of the firm. The regression models indicated that there was some relationship between receivables management and the firm's value while the result of the Pearson correlation indicated a negative relationship between average cash collection period, inventory turnover in days, cash conversion cycle and the value of the firm.

In his study of receivable management practices by Kenyan firms, Kotut (2013) found a strong significant relationship between the measures of receivable management and corporate liquidity. Kotut (2013) asserted that all impairment losses must be recorded as an operating impairment loss but less. Kotut (2013) further claims that features between an operating impairment loss and either a special or extraordinary impairment loss depend on whether the event or circumstance is either unusual, infrequent, or both. However, Kwame (2010), in his study of receivable management practices of SMEs in Ashanti region of Ghana, claims that generally, recording an impairment loss as special and/or extraordinary is difficult to justify. Kwame (2010) findings suggest that managers can increase liquidity by reducing the number of day's

accounts receivable is recovered. This is particularly important for both small and large firms who need to finance increasing amounts of debtors.

Rahemen and Nasr (2007) carried out a study on working capital management and profitability, a case of 94 Pakistani firms on Karachi Stock Exchange for a period of six years 1999-2004. Their main objective was to establish the relationship between working capital management including accounts receivable and profitability of firms. Their findings were that there was a strong negative relationship between net operating profitability and the average collection period for firms Listed on the Karachi stock exchange. The result suggested that managers should create value for their shareholders by reducing the number of days of accounts receivable to minimum.

In summary whereas Lazaridis and Tryfonidis (2006) investigated relationship between accounts receivables management and corporate profitability, Raheman and Nasr (2007) investigated relationship between cash conversion cycle and its components Afza and Nazir (2009) on the other hand made an attempt to investigate the traditional relationship between receivables management policies and a firm's profitability and Finally, Waweru (2011) carried out a study on the relationship between receivables management and the value of companies quoted at the NSE. It is therefore clear that the previous studies were the works above are more inclined towards the effect of accounts receivables on profitability and firm value. The studies are inconclusive in the way they address the content of accounts receivables and how it affects firm's liquidity. They do not clarify effect of accounts receivables on liquidity not for profit organization like public health centers. This therefore remains unknown and need to be investigated further.

2.3 Working Capital Management Practices and Financial Performance

Efficient management of working capital is a fundamental part of the overall corporate strategy in creating the shareholders' value (Deloof, 2003), and firms try to keep an optimal level of working capital that maximizes their value (Afza and Nazir, 2007). According to Eljelly (2004), financial performance of corporate organizations is a major source of concern to the financial manager, entire management, as well as

the shareholders. This is more so as it is expected that every corporate organization of any kind should make a fair return to justify its existence. Deloof (2003) argues that the requirement that organizations realize reasonable financial performance calls for proper management of working capital which has a significant impact on corporate continuity, while Pandey (2004) agrees that there is a significant impact of working capital management policies on organizational financial stability.

Aminu (2003) alludes that working capital management is an essential tool in the success story of any firm in terms of profitability. A good or positive working capital enables a firm to access finance from short-term creditors and even long term creditors. In the long-run, creditors seek firms with a positive working capital since it serves as an assurance of loan repayment. The issue of a positive working capital calls for working capital management which, according to Pandey (2004), is the administration of all components of working capital-cash, marketable securities, debtors (receivables) and stock (inventories) and creditors (payables). Further, Pandey (2004) states that the financial manager must determine levels and composition of current assets by determining the right source to finance current assets and that current liabilities are paid in time. Smith and Sell (2008) contends that the goal of working capital management is to ensure that the firm is able to continue its operation and that it has sufficient cash flows to satisfy both maturing short-term debt and upcoming operational expenses. This will obviously have significant effect on the firm's financial performance (Smith and Sell, 2008).

For small and growing organizations, an efficient working capital management is a vital component of success and survival in terms of both profitability and liquidity (Howorth and Westhead, 2003). Howorth and Westhead (2003) further suggest that the small firms need to focus on some areas of working capital management where they can expect to improve marginal returns. Ideally, therefore, they need to adopt formal working capital management routines in order to reduce the probability of business closure, as well as to enhance business performance. Grablowsky (2006) portrays a significant relationship between various success measures and the employment of formal working capital policies and procedures. Managing cash flow and cash conversion cycle is a critical component of overall financial management for

all firms, especially those that are capital constrained and more reliant on short-term sources of finance (Grablowsky, 2006).

An efficient working capital management can enable a firm to react quickly and genuinely to unexpected changes in economic environment and gain competitive advantages over its rivals (Alshubiri, 2011). To put it briefly, an efficient working capital management primarily aims to ensure an optimum balance between profitability and risk (Ricci and Di Vito, 2000). This objective can be achieved by continuous monitoring of working capital components such as accounts receivable, inventory and accounts payable. The success of a firm heavily depends on the effective skills of financial managers (Filbeck and Krueger, 2005; Afza and Nazir, 2007).

The relationship between the short-term liabilities (current liabilities) and current assets determines the liquidity position of firms (Dong and Su, 2010). However, Van Horne and Wachowicz (2004) point out that excessive levels of current assets may have a negative effect on the firm's profitability whereas a low level of current assets may lead to lower level of liquidity and stock outs resulting in difficulties in maintaining smooth operations. This definition doesn't provide an accurate concept of corporate liquidity because the components of working capital have different levels of liquidity, as some of components have financial essence with a high liquidity. Other components have non - financial essence with a low liquidity (for example receivable, payable accounts and inventory). Shulman and Cox (1985) defined financial items as net liquidity balance (NLB) and non-financial items as working capital requirement (WCR). However, the liquidity of NLB is different from liquidity of WCR but they are related to each other. For example, with decreasing the period of receiving the receivable accounts, will decrease WCR and NLB as cash in value will increase. A company can perform short term warranties on time if it has the high amount of working capital; this subject redound to increase capacity of receivable loan in company and to decrease in the risk of non-payment of the debts, so efficiency in working capital management effects on short term financial performance (profitability) as well as long term performance (maximum firm value).

Empirical studies in this subject include the works of Deloof (2003) who investigated the relation between Working Capital Management (WCM) and corporate profitability for a sample of 1,009 large Belgian nonfinancial firms for the 1992-1996 periods. Number of day's accounts receivable, inventories and accounts payable were used as measures of trade credit and inventory policies. The cash conversion cycle was used as a comprehensive measure of WCM. Using descriptive, correlation and regression analysis, the results of the study found a significant negative relationship between gross operating income and the number of days accounts receivable, inventories and accounts payable of Belgian firms. The results suggested that managers can create value for their shareholders by reducing the number of day's accounts receivable and inventories to a reasonable minimum. The results also showed a negative relation between accounts payable and profitability which is consistent with the view that less profitable firms wait longer to pay their bills.

Eljelly (2004) examined the relationship between profitability and liquidity, as measured by current ratio and cash gap (cash conversion cycle) on a sample of 929 joint stock companies in Saudi Arabia. Using correlation and regression analysis the study found significant negative relationship between the firm's profitability and its liquidity level, as measured by current ratio. The study also revealed that the relationship is more evident in firms with high current ratios and longer cash conversion cycles. At the industry level, however, the study found that the cash conversion cycle or the cash gap is of more importance as a measure of liquidity than current ratio that affects profitability. The size variable was also found to have significant effect on profitability at the industry level.

Charitou, Elfani and Lois (2010) empirically investigated the effect of working capital management on firm's profitability: evidence from an emerging market, data set was obtained from firms listed in the Cyprus Stock Exchange for the period 1998-2007. Using multivariate regression analysis, the results indicated that the cash conversion cycle and all its major components; namely, days in inventory, days 'sales outstanding and creditor's payment period – are inversely associated with the firm's profitability.

Chary, Kasturi and Kumar (2011) stressed that effective working capital decisions contribute to the profitability and attainment of overall objectives of an entity on one hand and provide liquidity to the firm on the other. In their study using data available from H.G. Pharma Ltd, during the period 2003-2008 in India found that investment in total current assets has a negative correlation with the profitability with a coefficient of -0.81. This concludes that excess investment in working capital has adverse effect on profitability. Further Chary *et al.* (2011) found a strong negative correlation of -0.83 on the relationship between levels of inventory and profitability. This indicates that excess investment in inventory results in low profitability. They also observed that current ratio has a strong negative correlation with profitability. This concurs to the theory that excess working capital results in low profitability.

Bhunia *et al.* (2011) investigated effectiveness of working capital in terms of short-term liquidity of the private sector steel companies in India; data on current ratio, liquid ratio, absolute liquid ratio, and short-term debt-equity ratio, age of inventory, age of debtors, and age of creditors was obtained from samples of private sector steel companies from the year 1997 to 2006. The correlation and regression results indicated that there is a high relationship existing between liquidity and profitability of all the selected steel companies under the study. Working capital management is important part in firm financial management decision. The optimal of working capital management could be achieved by firm that manages the tradeoff between profitability and liquidity. Thus, firm manger should concern on inventory and receivables in purpose of creation of shareholder wealth.

Mahavidyalaya and Ray (2012) studied the impact of working capital management components on corporate profitability using a sample of 311 Indian manufacturing firms for a period of 14 years from 1996/97 to 2009/10. The study used different variables of working capital management including the average collection period, inventory turnover in days, average payment period, cash conversion cycle, and current ratio, debt ratio, size of the firm and financial assets to total assets ratio on the net operating profitability of Indian firms. The results of the study found that the optimal working capital management could be achieved by firms that manage the tradeoff between profitability and liquidity. Their study found a strong negative

relationship between the measures of working capital management including the number of days accounts receivables, accounts payables and cash conversion cycle with corporate profitability.

Ashraf (2012) investigated the relationship between working capital efficiency and profitability using a sample of 16 Indian firms, listed on Bombay Stock Exchange for a period of five years starting from 2006 to 2011, by examining the effect of different variables of working capital management including the Debt ratio, Average collection period, Inventory turnover in days, Average payment period, Cash conversion cycle and Current ratio on the Net operating profitability of sample firms. Descriptive and Regression analysis were used. It was concluded that there is a strong negative relationship between variables of working capital and firm's profitability except the sales (Size of the company) which had a positive relationship between size of the firm and its profitability. A significant negative relationship between debt used by the firm and its profitability was also concluded.

Vural, Sokmen and Cetenak (2012) investigated the effects of working capital management on firm's performance using secondary data collected from 75 manufacturing firms listed on Istanbul Stock Exchange Market for the period 2002-2009. From the panel data it was concluded that there are significant relations between working capital management and firm performance. The results show that collection period of account receivables and cash conversion cycle are negatively related with firm's profitability and this means by shortening collection period and cash conversion cycle firms can increase their profitability. According to results, relationship between other working capital management components and firm's profitability is insignificant. Relationship between leverage and firm's profitability is negative while the relationship between firm size and firm's profitability is positive. Leverage as a control variable has a significant negative relationship with firm value and profitability of firms. This means, increase in the level of leverage will lead to decline in the profitability of the firm and the value of the firm.

Arshad and Gondal (2013) studied the relationship between working capital management and profitability of Pakistan cement sector using quantitative method of

research approach using ratios of 21 listed cement companies in Karachi stock exchange during the period of 2004 – 2010, the result of study showed that there is significant negative relationship between working capital management on profitability of the firms.

Mutenheri and Zawaira (2013), in their study of the association Between Working Capital Management and Profitability of Non-Financial Companies Listed on the Zimbabwe Stock Exchange, using a sample of 32 non-financial companies, regression results showed that profitability was not associated with receivables collection period, inventory conversion period, cash conversion cycle, quick ratio, current asset to total asset ratio, current liabilities to total asset ratio, debt ratio and age of company. However, a negative and significant relationship between payables deferral period and profitability was found. In addition, liquidity and size were found to enhance profitability of firms. They concluded that firms can enhance profitability by shortening the payables deferral period.

Asiedu and Ebenezer (2013) in the study on the relationship between working capital management and profitability of listed manufacturing companies in Ghana found out that, the major component of working capital management such as inventory days, account payable and cash conversion cycle have influence on the profitability of manufacturing companies. The cash conversion cycle was found to have a positive but insignificant effect on profitability, account payable days and inventory days in the study has negative coefficient but also has insignificant effect on profitability of manufacturing companies. The study recommended that, manufacturing companies should adopt efficient and effective ways of efficiently managing these components of working capital management.

YaghoobNejad et al. (2010) scrutinized the relationship between working capital management and profitability. A sample of 86 active firms listed at the Tehran Stock Exchange was selected and data was obtained over the period 2002-2007. For analysis, this study applied regression and Pearson's correlation techniques. The results indicated a negative relationship between working capital management and profitability. The results also showed that increase in accounts collection period,

accounts payable period, inventory turnover period and cash conversion cycle negatively impacted profitability. The study alluded that managers can increase shareholders' value through reduction of days accounts receivable, days accounts payable, inventory turnover period and cash conversion cycle.

Mathura (2010) conducted a study on the influence of working capital management as part of corporate profitability on the listed firms in Kenya a sample of 30 firms listed at the Nairobi stock exchange (NSE) between 1993 to 2008 was considered. The pooled OLS and the fixed effects regression models were used to analyze the findings. The study revealed that there was a negative relationship between account collection period and profitability hence a negative effect on financial performance meaning that successful firms take a shorter time horizon to collect cash from their customers hence credit reduction. The study also reveals a significant negative relationship between the periods of inventory conversion into sales hence profitability.

The study by Majeed *et al.* (2013) investigated the relationship of cash conversion cycle and profitability of firms of Pakistani firms using a sample of 32 companies selected randomly from three manufacturing sectors i.e. chemical, automobiles and construction & material for the period of five years from 2006 to 2010. The correlation and regression analyses were used to examine the relationship of CCC with performance of the firms: Return on Assets (ROA), Return on Equity (ROE) and Operating Profit (EBIT). The study revealed a negative relationship between the different variables of cash conversion cycle on firm's performance. The results suggested that managers can create value for their shareholders by reducing the number of days for accounts receivables. In addition, the negative relationship suggests that less profitable firms will pursue a decrease of their accounts receivables in an attempt to reduce their cash gap in the CCC. Managers can improve profitability by reducing the credit period granted to their customers.

Locally, Apuoyo (2010) investigated the relationship between working capital management policies and profitability for companies quoted at the NSE using a sample of 19 listed companies for a period of five years and found that the firm's profitability as measured by ROA increases with firm's size, gross working capital

efficiency and with a lesser aggressiveness of the asset management. Thus, contrary to the traditional theory of asset management, where a conservative policy is expected to sacrifice profitability at the expense of liquidity, the research study found out that there is a positive relationship between a conservative working capital management policy and the profitability of the companies quoted at the NSE.

Waweru (2011) in the study of the relationship between working capital management and the value of companies quoted at the Nairobi stock exchange using secondary data obtained from a sample of 22 companies annual reports and audited financial statement for a period of seven years from 2003 to 2009 concluded that a negative relationship between average cash collection period, inventory turnover in days, cash conversion cycle and value of the firm existed. It further indicated a positive relationship between value of the firm and average payment period. This means that the managers can increase the value of their respective firms by handling correctly the cash conversion cycle and keeping each different component of working capital management at an optimal level. More specifically managers can increase value for their respective firms by reducing average cash collection period, inventory turnover period, cash conversion cycle and delaying payments to the suppliers.

Waithaka (2012) investigated the relationship between working capital management practices and financial performance of agricultural companies listed at the Nairobi securities exchange. Data from 7 listed agricultural companies in Kenya for a period of five (2007-2011) was used. The correlation analysis revealed that there a negative relationship existed between the accounts collection period and financial performance, the result suggested that firms can improve their profitability by reducing the number of days accounts receivable are outstanding. A positive relationship between Inventory Conversion period and ROA was identified, this means that that maintaining high inventory levels reduces the cost of possible interruptions in the production process and the loss of business due to stock out costs.

Mwangi *et al.* (2014) investigated the effect of working capital management on the performance of non-financial companies listed in the Nairobi Securities Exchange (NSE), Kenya. The study employed an explanatory non-experimental research design.

A census of 42 non-financial companies listed in the Nairobi Securities Exchange, Kenya was taken. Using ROA and ROE as the dependent variable and working capital management as the independent variable, Feasible Generalized Least Square (FGLS) regression results revealed that an aggressive financing policy had a significant positive effect on return on assets and return on equity while a conservative investing policy was found to affect performance positively. The study recommended that managers of listed non-financial companies should adopt an aggressive financing policy and a conservative investing policy should be employed to enhance the performance of non-financial companies listed in the NSE, Kenya.

Mathuva (2010) in his study on the influence of working capital management on corporate profitability found that there exists a highly significant negative relationship between the time it takes for firms to collect cash from their customers and profitability. He explained that the more profitable firms take the shortest time to collect cash from the customers. The study further revealed that there exist a highly significant positive relationship between the inventory conversion period and profitability. It was explained that firms, which maintain sufficiently high inventory levels reduce costs of possible interruptions in the production process and loss of business due to scarcity and products. Finally, the study established that there exists a highly significant positive relationship between the average payment period and profitability. He held that the longer a firm takes to pay its creditors, the more profitable it is. In this study, a sample of 30 firms listed on Nairobi Stock Exchange for the periods 1993 to 2008 was used.

Gakure *et al.* (2012) studied the relationship between working capital management and profitability of 15 manufacturing companies listed at the Nairobi Securities Exchange (NSE) from the year 2006 to 2010, and for a total of 75 firm year observations. They used secondary data collected from a sample of 18 firms listed at the NSE. Regression model was used to analyze the relationship between independent and dependent variables. Regression analysis and Pearson's correlation techniques were used to analyze the data.

The results found a strong negative relationship between a firm's performance and its liquidity. The study further indicated a negative co-efficient relationship between average payables period, accounts collection period, inventories holding period and profitability. Cash Conversion Cycle was however found correlate positively with firm's profitability.

In summary, the studies above delved on various issues working capital management and profitability relationship. Whereas Deloof (2003) investigated the relation between Working Capital Management (WCM) and corporate profitability, Eljelly (2004) examined the relationship between profitability and liquidity, as measured by current ratio and cash gap. Charitou, Elfani and Lois (2010) on the other hand empirically investigated the effect of working capital management on firm's profitability. Chary, Kasturi and Kumar (2011) stressed that effective working capital decisions contribute to the profitability and attainment of overall objectives of an entity. Bhunia *et al.* (2011) investigated effectiveness of working capital in terms of short-term liquidity of the private sector steel companies in India, Obida and Owolabi (2012) carried out a study on liquidity management and corporate profitability on manufacturing companies listed on the Nigerian stock exchange. Mahavidyalaya and Ray (2012) studied the impact of working capital management components on corporate profitability and Ashraf (2012) investigated the relationship between working capital efficiency and profitability using a sample of 16 Indian firms, Vural, Sokmen and Cetenak (2012) investigated the effects of working capital management on firm's performance. Arshad and Gondal (2013) studied the relationship between working capital management and profitability of Pakistan cement sector, The study by Majeed *et al.* (2013) investigated the relationship of cash conversion cycle and profitability of firms of Pakistani firms and finally

Asiedu and Ebenezer (2013) did a study on the relationship between working capital management and profitability of listed manufacturing companies in Ghana. It is therefore clear that in these studies which were done outside the Kenyan context, none of them has attempted to establish the relationship that exists between working capital management and organization's financial performance. They were just more inclined to profitability and overall organizational performance. The studies that were also

done in Kenya did not also look into this relationship. None of the previous studies looked at liquidity and financial efficiency as measures of financial performance. It therefore remains unknown the relationship that exists between working capital and financial performance in the context of public health centers as this has never been previously investigated.

CHAPTER THREE

RESEARCH METHODOLOGY

This chapter presents the research methodology, research design, study area, target population, sampling frame, data collection methods, data analysis, data presentation and finally research ethics.

3.1 Research Design

The study adopted a correlational survey research design. Cohen *et al.* (2000) advocate for this design because of its ability to ascertain detailed description of existing situation. According to Yin (2003), correlational survey research design is structured to examine a number of logical sub-units or units of analysis within organizations. Therefore, it enabled the researcher obtain and study information regarding the effect of working capital management on financial performance of public health centers in Ugenya sub-county.

3.2 Study Area

This study was conducted in Ugenya sub-county which covered public health centers in the following areas: Bar Ndege, Bar Achuth, Sifuyo, Urenga, Jera, Nyangu, Sega, Umer, Ligala and Ukwala. There were 10 public health centers that were included in this study that have been in operation for at least 3 years and were classified as high volume.

3.3 Target Population

The population of this study comprised 10 respondents who were facility administrators from the public health centres in Ugenya sub-county. However, only 9 respondents were taken for the study as one facility administrator from Ukwala health center was used in piloting.

3.4 Sample size

Census survey was conducted as the number of respondents used in this study were few. The respondents were drawn from the nine health centers in Ugenya sub County.

3.5 Data Type and sources

Both Primary and secondary data were used in the study. Primary data was collected using a semi-structured questionnaire administered to the respondents. The researcher administered the questionnaires through the drop and pick later method. According to Babbie (2007) questionnaires can obtain information about thoughts, feelings, attitudes, beliefs, values, perceptions, personality, and behavioral intentions of the research participants in a large population. Since this study was a survey, the questionnaire was appropriate because it explored the perceptions, attitudes, feelings and behavior of target respondents. The questionnaires were administered to the facility administrators of the nine public health centers that were involved in this study. Secondary data was collected using document review.

3.5.1 Reliability and validity Test for Data Collection Instrument

An instrument is valid if it measures what it is intended to measure and accurately achieves the purpose for which it was designed (Patten, 2004; Wallen & Fraenkel, 2001). According to Patten (2004) validity is a matter of degree and no test instrument is perfectly valid. The instrument used should result in accurate conclusions (Wallen & Fraenkel, 2001). Validity involves the appropriateness, meaningfulness, and usefulness of inferences made by the researcher on the basis of the data collected (Wallen & Fraenkel, 2001).

A pilot study was carried out one facility administrator from Ukwala Sub County to pretest and validate the questionnaire. To establish the construct validity of the research instrument, the researcher sought the opinions of lecturers in the department of accounting and finance on the constructs of the independent variables and how they relate with financial performance. This helped in the revision and modification of the research instrument prior to the study thereby enhancing validity. To check the reliability of the instrument in this study, Cronbach's Alpha was used (Cronbach, 1951). According to suggestions by Hair *et al* (1998), the study is deemed acceptable if a reliability coefficient above 0.6 is attained. A test of the constructs of this study was done in three stages; the first with two independent variable constructs which yielded an alpha coefficient score of 0.682. The second test contained all the independent variables and scores of 0.635 were realized. When financial performance

was added in the test, alpha coefficient of 0.719 was attained. This confirmed that the instruments used for the study were reliable. Mugenda and Mugenda (2003), also confirms that a high alpha coefficient above 0.6 implies consistency. The results of the reliability test are shown in the table below:

Table 3.5.2: Reliability Statistics

Cronbach's Alpha	N of Items
0.682	2
0.635	4
0.719	6

Source: Survey data, 2014

3.6 Data Analysis and Presentation

Data collected through the use of structured questionnaire was synthesized and coded, attaching scores to quantitative descriptions. Data was analysed using descriptive and inferential statistics. Specifically, the demographic data and second specific objective was analyzed using descriptive statistics while the first and the third objective was analyzed using inferential statistics. The results of these analyses was presented in form of tables and charts

3.7 Model specification

$$Y = \alpha + \beta_1 X_1 + \varepsilon$$

Where:

Y= Dependent Variable (Accounts receivable days)

α = constant term

β_1 , =Standardized coefficient of X in the additive model

X_1 = Liquidity

CHAPTER FOUR

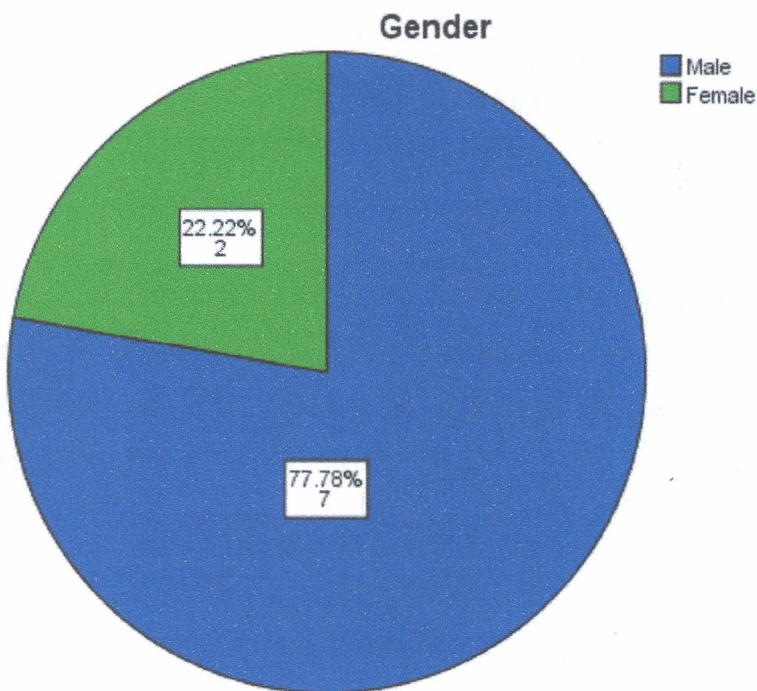
RESULTS AND DISCUSSION

This chapter is divided into two main sections. The first section addresses the descriptive aspects of the data such as the demography of the sample data while the second part deals with the quantitative or inferential statistics. Therefore, the specific objectives of the study are addressed in this chapter.

4.1 Response Rate

The respondents consisted of nine health facility administrators from the nine Ugenya sub-county public health centers which included Bar Ndege, bar Achuth, Sifuyo, Urenga, Jera, Nyangu, Sega, Umer and Ligala .A total of 9 questionnaires were distributed to these administrators and the response as per gender was analyzed and presented as shown in the figure 4.1 below:

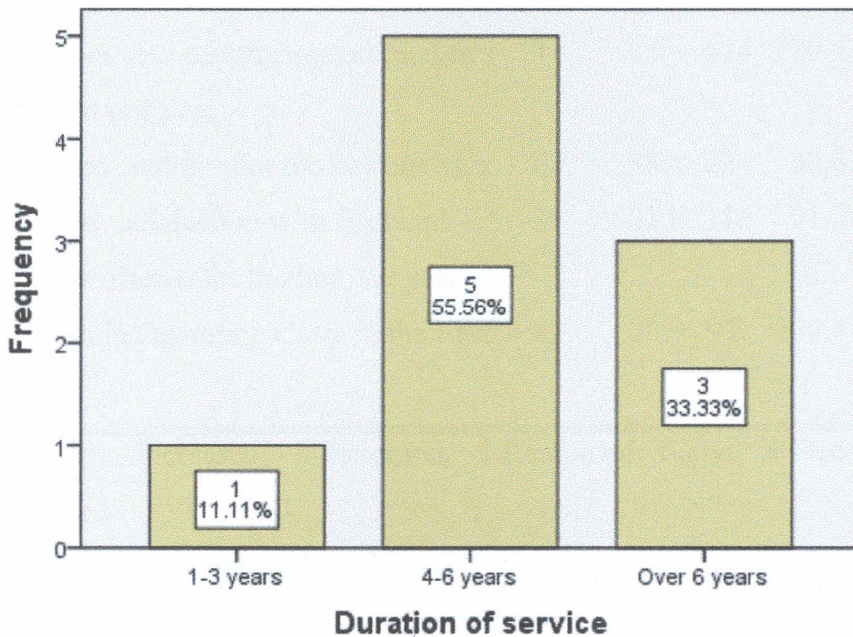
Figure 4.1: Response Rate



Source: Survey data, 2014

The respondents who filled in the questionnaires comprised of 2 ladies who were facility administrators and 7 gentlemen translating to 22.22% and 77.78% respectively. This totals to 9 facility administrators drawn from the nine health centers in Ugenya Sub County that were used in the study.

Fig 4.2: Respondent's Duration of Service



Source: Survey data 2014

It was established from the survey that the facility administrators who had served for a duration of between 4-6 years were the highest at 55.56% translating to 5 facility administrators. This implied that in Ugenya sub-counties employee retention in the health sector is above average.

4.2: Measures of Financial Performance

Table 4.2.1: Rating the level of Liquidity of public health centers (n=9)

Liquidity activity measure	Remained				Strongly		Total	
	Same		Increased		Increased			
	f	%	f	%	f	%	μ	SD
Cash availability for daily operations for the last one year	2	1.2	149	92.0	11	6.8	4.06	.28
Purchase of new equipment and facilities for the last one year	4	2.5	114	70.4	44	27.2	4.25	.49
Payment to creditors for the last one year	63	38.9	82	50.6	17	10.5	3.72	.64
Employees satisfaction with financial incentives offered for the last one year	35	21.6	115	71.0	12	7.4	3.86	.52
Reduction in Operating Costs in the Last One Year	42	25.9	93	57.4	27	16.7	3.91	.65

1-Strongly Increased, 2-Increased, 3-Remained Same, 4-Decreased, 5-Strongly Decreased

Source: Survey Data (2014)

The mean response score for all the items was 3.96. This is a high rating according to the scale. This implies that respondents were of the view that liquidity of the public health centers in Ugenya sub-county had increased. Besides, the standard deviations were quite minimal. All were below 0.65. This means that deviation of responses from the mean response was minimal. Most respondents observed liquidity activities of the organization had taken place in almost equal measure. The results further show that liquidity increase was not significantly different among the nine public health centers in Ugenya Sub County. This is indicated by F value above 1 and p value above 0.05

Table 4.2.2: Ratings on Extent of financial efficiency of health centers in Ugenya sub county (n=9)

Activity	Remained		Decreased		Strongly		Total	
	Same		Decreased		Decreased		μ	SD
	f	%	f	%	f	%		
Staffing levels in the facility in the last one year	4	2.5	154	95.1	4	2.5	4.00	.22
Level of supervision of workforce in the last one year	4	2.5	148	91.4	10	6.2	4.04	.29
Extent of external audit of accounts in a year	4	2.5	89	54.9	69	42.6	4.40	.54
Management approval of expenditure in the last one year	4	2.5	129	79.6	29	17.9	4.15	.43
Prompt collection of client payments	6	3.7	124	76.5	32	19.8	4.16	.46

1-Strongly Increased, 2-Increased, 3-Remained Same, 4-Decreased, 5-Strongly Decreased

Source: Survey Data (2014)

The results indicate that respondents tended to approve of financial efficiency as practiced within the health centers. There was an increase in most activities perceived to lead to financial efficiency ($\mu =4.15$). Respondents reported an increase in the last one year in among others; staffing levels ($\mu =4.00$, SD = 0.222); extent of external audit of accounts ($\mu =4.40$, SD=0.541); prompt collection of client payments ($\mu =4.16$, SD = 0.458); and in the level of supervision of workforce ($\mu =4.04$, SD = 0.294). In general financial efficiency was found not to be significantly different among the nine public health facilities surveyed in Ukwala sub-county.

Table 4.2.3: Effect of Accounts payable days on financial efficiency

	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
(Constant)	3.608	1.094		3.299	.003
Accounts payable Days	-.258	.306	-.303	-.842	.000
R Square	.214				
Adjusted R Square	.198				

a. Dependent Variable: Financial Efficiency

Source: Survey Data (2014)

The results above show that accounts payable days had beta standardized coefficients and p values of $\beta = -0.303$, $p < .05$. This implies that the beta coefficients, β , which is the degree to which the independent variables each explain the dependent variable, is negative and significant. The standardized β coefficient of accounts receivable days shows that a unit standard deviation of accounts receivable days causes -3.03 standard deviations in financial efficiency of the health centers in Ugenya sub- County. Similarly for the un-standardized coefficients, a unit % age change in accounts payable days is likely to result in a change in financial efficiency by these health centers by 0.258% in the opposite direction. R^2 is 0.214 and is significant. Similarly, the adjusted R^2 is 0.198 and also significant. The shrinkage in this case is 0.016 (0.214-0.198) which is below the level of 0.5 suggested by Field (2005) and means that the model is valid, has stability for prediction and predicts variance of financial efficiency at 21.4%. This means that accounts payable days only explain 21.4 percent of the health facilities financial efficiency. The study therefore developed the analytic model shown below for predicting how accounts payable days of public health centers in Ukwala Sub County affect level of financial efficiency= $3.608 - 0.258 X_1 + \varepsilon$

The above model shows that, accounts payable days with unstandardized coefficient of -0.258 significantly affect financial efficiency of public health centers in Ugenya Sub County in the inverse direction. This relationship implies that when the number of days in which creditors are paid is reduced, the financial efficiency of these health centers increases meaning that their degree of efficiency in using labor, management and capital is increased as a result. These findings concur with the assertion by Smith and Sell, 2008 that the goal of working capital management is to ensure that the firm is able to continue its operation and that it has sufficient cash flows to satisfy both maturing short-term debt and upcoming operational expenses as this will obviously have significant effect on the firm's financial performance.

The findings concur with the works of Deloof (2003) who investigated the relation between Working Capital Management (WCM) and corporate profitability and the results also showed a negative relation between accounts payable and profitability which is consistent with the view that less profitable firms wait longer to pay their bills. It also concurs with the findings of the study by Mahavidyalaya and Ray (2012) who studied the impact of working capital management components on corporate profitability using a sample of 311 Indian manufacturing firms. They found a strong negative relationship between the measures of working capital management including the number of days accounts receivables, accounts payables and cash conversion cycle with corporate profitability. Other study findings that concur with this study include the works of Ashraf (2012) Arshad and Gondal (2013) Mutenheri and Zawaira (2013) Asiedu and Ebenezer (2013).

YaghoobNejad *et al.* (2010) Gakure *et al.* (2012). However there were no contradicting findings found in literature meaning that reducing the account payable days increases a firm's profitability hence financial efficiency.

Table 4.2.4: Effect of Accounts Receivable Days on Liquidity of Public Health Facilities in Ugenya Sub-county

	Unstandardized		Standardized	t	Sig.
	Coefficients		Coefficients		
	B	Std. Error	Beta		
(Constant)	5.587	.780		7.160	.000
Accounts Receivable days	-.010	.228	-.858	-4.420	.003
R Square	.672				
Adjusted R Square	.654				

a. Dependent Variable: Liquidity

Source: Survey Data 2014

The results show that accounts receivable days had beta standardized coefficients and p values of $\beta = -0.858$, $p < .05$. This means the beta coefficients, β , which is the degree to which the independent variables each explain the dependent variable, is negative and significant. The standardized β coefficient of accounts receivable days shows that a unit standard deviation of accounts receivable days causes -8.58 standard deviations in liquidity of the health centers in Ugenya sub- County. The un-standardized coefficients, mean that a unit % age change in accounts receivable days is likely to result in a change in public health centers in Ugenya sub-county liquidity by 0.228% in the opposite direction. R^2 is 0.672 and is significant. Similarly, the adjusted R^2 is 0.654 and also significant. The shrinkage in this case is 0.018 (0.672-0.654) which is below the level of 0.5 suggested by Field (2005) and means that the model is valid, has stability for prediction and predicts variance of liquidity at 67.2%. This means that accounts receivable days only explain 67.2 percent of the health facilities liquidity. The study therefore developed the analytic model shown below for predicting how accounts receivable days of public health centers in Ugenya Sub County affect level of liquidity. $Y = 5.587 - 0.10 X_2 + \epsilon$

The model above shows that, accounts receivable days with unstandardized coefficient of (-0.01) significantly affect liquidity of public health centers in Ukwala sub county in the inverse direction. This relationship implies that when the number of days in which debtors are supposed to repay the debts they owe the public health centers is reduced, their liquidity increases meaning that their ability to meet their financial obligations is enhanced as a result of prompt collection of debts from debtors.

The finding that that accounts receivable days was a negative significant predictor of liquidity of public health centers in Ugenya sub-county is consistent with the assertion by Michalski (2007) who postulated that provides that an increase in the level of accounts receivables in a firm increases both the net working capital and the costs of holding and managing accounts receivables and both lead to a decrease in the value of the firm. Deloof (2003) also wrote that the length of receivables collection period has a negative effect on a firm's performance, an argument which agrees with the findings of this study. Sushma and Bhupesh (2007) also affirmed that, putting in place a sound credit policy ensures proper debt collection procedures and is pivotal in improving efficiency in receivables management hence the performance of firms.

The study findings by Waweru (2011) on the relationship between receivables management and the value of companies quoted at the NSE also concurred with the findings of this study when he established that there was a negative relationship between average cash collection period, inventory turnover in days, cash conversion cycle and the value of the firm. Rahemen and Nasr (2007) also carried out a study on working capital management and profitability, a case of 94 Pakistani firms on Karachi Stock Exchange for a period of six years and their findings suggested that managers should create value for their shareholders by reducing the number of days of accounts receivable to minimum.

Also in concurrence with the findings of this study was a study by Mahavidyalaya and Ray (2012) who did a study on the impact of working capital management components on corporate profitability. They found a strong negative relationship between the

measures of working capital management including the number of day's accounts receivables enhances liquidity.

Vural, Sokmen and Cetenak (2012) in their investigation of the effects of working capital management on firm's performance using secondary data collected from 75 manufacturing firms listed on Istanbul Stock Exchange Market found out that the collection period of account receivables and cash conversion cycle are negatively related with firm's profitability and this means by shortening collection period and cash conversion cycle firms can increase their liquidity and profitability. Mathura (2010) conducted a study on the influence of working capital management as part of corporate profitability on the listed firms in Kenya. His findings revealed that there was a negative relationship between account collection period and profitability. Other studies which had similar findings and which concur with this study include the works of Waweru (2011) Waithaka (2012) Mathuva (2010) Gakure *et al.* (2012).

Table 4.2.5: Relationship between working capital management and financial performance

	Cash inflows	Accounts payable days	Accounts receivable days	Average Stock level	Liquidity	Financial efficiency
Cash inflows	1					
Accounts payable days	.153	1				
Accounts receivable days	.210	.352	1			
Average Stock level	.316	.460	.294	1		
Liquidity	.673**	-.583**	-.633**	-.442**	1	
Financial efficiency	.522**	.502**	.785**	.598**	.327**	1

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Survey Data (2014)

The table above shows that the correlation between cash inflows liquidity was positive with correlation coefficients of 0.673. This implies that when the health

centers in Ugenya sub county increases their cash inflows, the more they become able to meet their financial obligations as they arise. This is in agreement with the assertion by Ross, *et, al* (2007) who observed that businesses faces a risk of reduced cash flow because it may wait for customer payments which reduce the ability to purchase replacement products from suppliers implying that the greater the cash inflows, the higher the liquidity.

The correlation between accounts payable days, accounts receivable days and liquidity was negative with correlation coefficients of -0.583,-0.633 and -0.442 respectively. This implies that an increase in the accounts payable days, accounts receivable days and average stock would automatically lead to a decrease in the liquidity of public health centers in Ugenya sub-county. These findings are consistent with the study findings of Vural, Sokmen and Cetenak (2012) who investigated the effects of working capital management on firm's performance and the results showed that collection period of account receivables and cash conversion cycle are negatively related with firm's liquidity and profitability and this means by shortening collection period and cash conversion cycle firms can increase their profitability. Mutenheri and Zawaira (2013), in their study also found a negative and significant relationship between payables deferral period and profitability. Yaghoob Nejad *et al.* (2010) scrutinized the relationship between working capital management and profitability. And found a negative relationship between working capital management and profitability. Waweru (2011) on the other hand in the study of the relationship between working capital management and the value of companies quoted at the Nairobi stock exchange concluded that a negative relationship exists between average cash collection period, inventory turnover in days, cash conversion cycle and value of the firm existed.

Other studies with similar findings included the works of Waitthaka (2012) who investigated the relationship between working capital management practices and financial performance of agricultural companies listed at the Nairobi securities exchange and the correlation analysis revealed that there a negative relationship existed between the accounts collection period and financial performance, the result suggested that firms can improve their profitability by reducing the number of days

accounts receivable are outstanding. However, Waithaka (2012) found a contradiction when he discovered in the same study that there exists a positive relationship between Inventory Conversion period and ROA, this means that that maintaining high inventory levels reduces the cost of possible interruptions in the production process and the loss of business due to stock out costs.

Conversely, the correlation between working capital elements and financial efficiency was positive and significant with correlation coefficients of 0.522, 0.502, 0.785 and 0.598 respectively with the highest positive correlation being realized between accounts receivable days and financial efficiency of the public health centers. These findings implied that an increase in any of the variables of working capital would lead to an increase in financial efficiency of the health centers. This is a contradiction to the works of Charitou, Elfani and Lois (2010) who empirically investigated the effect of working capital management on firm's profitability and the results indicated that the cash conversion cycle and all its major components; namely, days in inventory, days' sales outstanding and creditor's payment period are inversely associated with the firm's profitability. Waweru (2011) also found a contradiction in the study of the relationship between working capital management and the value of companies quoted at the Nairobi stock exchange using secondary data obtained from a sample of 22 companies annual reports and audited financial statement for a period of seven years and concluded that a negative relationship exists between average cash collection period, inventory turnover in days, cash conversion cycle and value of the firm Yaghoob Nejad *et al.* (2010) also found a contradiction to the findings of this study when they scrutinized the relationship between working capital management and profitability and their results indicated a negative relationship between working capital management and profitability.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter summarizes the results of the study and reports the conclusions drawn. In addition, practical contributions of the study are discussed together with observed limitations. The chapter concludes by providing potential avenues for future research.

5.1 Summary of Findings

Research objective one sought to establish the effect of accounts payable days on financial efficiency of public health centers in Ugenya-sub County. A regression analysis was done to determine the nature of this relationship and was discovered that there is an inverse relationship between accounts payable days and financial efficiency. The study further revealed that accounts payable days (the number of days it takes to pay the debts owed to creditors) is a significant predictor of variance in financial efficiency of the public health centers in Ugenya sub-county.

Research objective two sought to determine how accounts receivable days affect liquidity of public health centers in Ugenya Sub County. The results showed a significant negative coefficient for accounts payable implying that a decrease in the number of days in which cash collections are made from the debtors owing the public health centers in Ugenya Sub County leads to a positive improvement in the liquidity level of the facilities. This also implied that if the public health facilities want to succeed in meeting their financial obligations without a hitch then collections from customers who have received treatment in the facilities should be done promptly as delays in doing so might plunge the health facilities in a financial crisis which might in turn lead to decline in quality of services offered.

The third objective sought to establish the relationship between working capital management and financial performance of the public health centers in Ugenya Sub County. A correlation analysis was done and it was established that there exists a negative but significant correlation coefficients between accounts payable days, accounts receivable days, the average stock levels and the liquidity of the public health centers in Ugenya Sub County. This meant that an increase in the number of days in which cash collections are made from debtors or an increase in the duration in

which payments are made to creditors leads to lowering of liquidity of the public health facilities. The same applies to the stock levels. The results also confirmed that accounts receivable days, accounts payable days and average stock levels are strong negative predictors of liquidity of firms.

5.2 Conclusions of the study

From the findings it can be concluded that the public health centers in Ugenya Sub County strive to pay their creditors within the shortest time possible in order to enhance their financial performance by not accumulating debts which may become difficult to repay in the long run. It can also be concluded that the public health facilities in these sub-county are keen on debt collection from their clients who have received medical services. This has also enhanced their liquidity as a measure of financial performance. Finally, it can be concluded that there is a negative relationship between accounts receivable days, accounts payable days, average stock level and the liquidity of the public health centers in Ugenya sub-county. Moreover, it can also be concluded that there is a positive and significant relationship between working capital and financial efficiency of the public health facilities in Ugenya sub –county.

5.3 Recommendations of the Study

Based on the conclusions of the objective one and three it is recommended that the public health facilities should strive to take the shortest time possible to settle their bills to services offered or goods supplied as this will enhance their financial efficiency and will curb the errors of overpayment to suppliers as a result of accrued bills. The public health facilities should also emphasize the prompt collection of money from their debtors and clients so as to avoid plunging the facilities in financial crisis.

5.4 Limitations of the Study

The term limitation as used in the context of this study implies limiting conditions or restrictive weaknesses encountered in the conduct of the research (Mutua, 2006). A number of limitations were identified in the conduct of this research. First, the study used a cross sectional correlational survey design. Cross sectional survey is limited in accuracy due to the fact that it is a snap shot at a point in time. Nevertheless to

enhance the accuracy and validity of results the data obtained was scrutinized and cleaned before analysis, it was supported by use of a census inquiry. Secondly, the study limited its investigation to public health facilities, which compromises its global generalizability. Therefore the study advises the readers to restrict generalization of the results within this industry otherwise outside the industry but with care. Next, the data collection instrument comprising structured questions was self-administered. To enhance validity of the responses of this instrument, an interview schedule was not used to obtain further information from anyone of the senior managers of the facilities through interview.

There is often a tradeoff between the preciseness of the definition of a study and the manageability of a study. The more variables that are described, the greater the number of potential hypotheses and as the study moves towards empirical testing, the larger and more complex the survey, the sampling processes, and the method (Stonebraker and Liao, 2003). For this reason, this study assumed some constructs and omitted others. Certainly the omission of other constructs, detracts the overall scope of the model. These constructs are likely entwined with those of the present study and should be pursued, both separately and in concert, in future efforts.

5.5 Suggestions for Further Research

Based on the foregoing conclusions on the findings of this study, the researcher suggests the following future research directions on working capital management and financial performance relationship. First, the study used cross-sectional data to answer research questions. Therefore, there is need to conduct a longitudinal study to provide even more conclusive evidence to the above relationship. Secondly, future research efforts could also be focused on investigating the moderating effects of the Government policies, and management system. It also is suggested that other industries should also be investigated.

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