

# **ACCOUNTS RECEIVABLE MANAGEMENT AND FINANCIAL PERFORMANCE OF EMBU WATER AND SANITATION COMPANY LIMITED, EMBU COUNTY, KENYA**

**Francis Munene**

Master of Business Administration (Finance), Kenyatta University, Kenya

**Dr. Charles Yugi Tibbs**

Department of Accounting and Finance, School of Business, Kenyatta University, Kenya

©2018

**International Academic Journal of Economics and Finance (IAJEF) | ISSN 2518-2366**

**Received:** 24<sup>th</sup> September 2018

**Accepted:** 5<sup>th</sup> October 2018

Full Length Research

**Available Online at:**

[http://www.iajournals.org/articles/iajef\\_v3\\_i2\\_216\\_240.pdf](http://www.iajournals.org/articles/iajef_v3_i2_216_240.pdf)

**Citation:** Munene, F. & Tibbs, C. Y. (2018). Accounts receivable management and financial performance of Embu Water and Sanitation Company Limited, Embu County, Kenya. *International Academic Journal of Economics and Finance*, 3(2), 216-240

## **ABSTRACT**

Accounts receivable represents money owed to a business in return for goods already delivered or services already rendered. Proper maintenance of accounts receivable helps an organization maintain customer loyalty, track customer credit and uncollected profits. However, many organizations nowadays encounter numerous challenges in regard to their invoicing and accounts receivable process. Embu Water and Sanitation Company limited operate in conditions which limit its ability to maximize revenues because of inadequate infrastructure coverage, dilapidated infrastructure that predispose the company to lose quite a big percentage of supplied water, and the inability to set economic water tariffs. This study sought to determine the effects of accounts receivable management on financial performance of Embu Water and Sanitation Company limited, Embu County, Kenya. This study was guided by the following specific objectives: to examine the effects of inventory turnover period, average payment period, cash conversion period and average collection period on financial performance of Embu Water and Sanitation Company limited, Embu County, Kenya. Theories guiding the study were operational motives theory, transactions cost theory and cash conversion cycle theory. This study adopted descriptive research to test the relationship variables of the study. The study used

secondary data which was obtained from the accounts and finance departments. Descriptive statistics and inferential statistical techniques were used to analyze the data and presented in tables. The study established that inventory turnover in days has negative relationship with Return on Equity which means that companies financial performance can be increased by reducing inventory in days. Average collection period and current ratio was found to be significant positive association with Return on Equities, indicating that if time period of debtor's payment is increased then overall financial performance of Embu Water and Sanitation Company Limited in Embu County, Kenya also improves. The study recommended that Embu Water and Sanitation Company Limited should increase its average collection period, inventory turnover periods and cash conversion period in order to improve their financial performance. The study also recommends that there should be proper inventory management system in the organization to avoid over stock of inventory resulting efficient outcome of investment and engage in better relationship with those suppliers who allow long credit time period and those customers who allow short payment period.

**Key Words:** *accounts receivable management, financial performance, Embu Water and Sanitation Company Limited, Embu County, Kenya*

## **INTRODUCTION**

Receivable management is an important fact of financial management this is because excessive level of current assets and low level of current assets may lead to negative effect on a firm's profitability and difficulties in mediating smooth operation (Duru, Ekwe & Okpe, 2014). Berry

and Jarvis (2006) assert that a firm setting up a policy for determining the optimal amount of accounts receivable have to take into account the trade-off between the securing of sales and profits and the amount of opportunity cost and administrative costs of the increasing accounts receivable; the level of risk the firm is prepared to take when extending credit to the customer because the customer could default when payment is due and the investment in debt collection management.

Gill et al (2011) asserts that the main objective of accounts receivable is to reach an optimal balance between cash flow management components. Cash flow management is the process of planning and controlling cash flow both into and out of a business, that is, cash flows within the business and cash balances held by a business at a point in time. Efficient accounts receivable management affords a firm improve on its profitability by reducing the transaction costs of raising funds in case of liquidity crisis (Ahmet, 2012). Efficient firms maintain an optimal level of cash flow that maximizes their value.

The management of accounts receivable is largely influenced by the credit policy and collection procedure of a firm. Accounts receivable represents the rate at which the firm collects payments from its customers (Sharma & Kumar 2011). Excessive level of accounts receivable ratio on profitability may lead to negative effect. This is because if a firm has so many Debtors o pay, they may become short of cash which may lead to difficulty in settling their short-term financial obligations. According to Deloof (2013) management of accounts receivables which aims at maintaining an optimal balance between each of the accounts receivables 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

In many organizations the growth in access to credit has led to a rising level of consumer indebtedness which is having a significant impact on business profitability (Haris, 2010). Accounts receivables management is an issue for every institution offering credit to its customers and the challenge for organizations is to protect profit margins by reducing write-offs, cutting the cost to collect and maximizing the cash collected. In practice, Onwumere et al (2012) argue that it has become one of the most important issues in organizations with many financial executives struggling to identify the basic accounts receivables drivers and the appropriate level of accounts receivables to hold so as to minimize risk, effectively prepare for uncertainty and improve the overall performance of their businesses.

### **Financial Performance**

Financial performance is essential to the survival of firms in the competitive and uncertain environment. According to Barnett and Salomon (2012), financial performance is conceptualized as the extent to which a firm increases sales, profits, and return on equity. These are indicators of financial performance and manifest the wellbeing of a firm collectively. Traditionally, the financial performance of firms has been measured using a combination of conventional

accounting measures and risk and return measures. Further analysis of financial performance has used methodologies such as financial ratio analysis, benchmarking, measuring performance against budget or a combination of these. Financial statements published commonly include a variety of financial ratios designed to give an indication of the institution's performance (Huselid, 2010).

Ittner and Larcker (2014) assert that measuring financial performance accurately is critical for accounting purposes and remains a central concern for most organizations. Performance measurement systems provide the foundation to develop strategic plans, assess an organization's completion of objectives, and remunerate managers. In broader sense, Metcalf and Tetrad (2015) refer financial performance as the degree to which financial objectives being or has been accomplished or it is used as a general measure of a firm's overall financial health over a given period of time, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation.

Huselid (2010) assert that financial performance has been measured in various ways, items in income and cash flow statement as well statement of financial position can be used for example liquidity measures the ability of the business to meet its financial obligations as they fall due without affecting the company's normal business operations, it 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.

Lee (2012) posits that financial performance can be sustained and improved by increasing the market share position, whereby an organization's objective is to be the leader in the market which should be characterized by the potential of increasing shareholder value in the process. On the other hand, McTaggart, Kontes and Mankins (2014) reveals that the favorable financial returns in various forms amount into an organizational value which depends on two factors, that is market share positioning and having the competitive advantage over its rivalries to gain higher returns along with economies of scale.

### **Accounts Receivable Management**

Accounts receivable management is a very important aspect of corporate finance since it directly affect the liquidity and profitability of the company (Pandey, 2010). The key principles of accounts receivable management that a firm should adhere to are ageing of accounts receivable, evaluating the potential customers ability to pay using criteria such as integrity of the customer, financial soundness, collateral to be pledged and current economic conditions should be analyzed, establishment of credit terms and limits, collection of trade credit, assessment of default risk and responsibility and the financing of accounts receivable until it has been paid by the purchaser ( Schaum, 2011).

Namazi (2011) argue that inventory management has an impact on firm performance in different ways. The authors also argue that by maintaining inventory, companies can improve production

planning and they can minimize inventory and significantly reduce procurement costs through bulk purchases and speculation in the trading price. Bernard and Noel (2012) found that there is a significant relationship between inventory and sales and profits with a review about the product inventory structure and its relationship to profit and sales. The fact that the inventory makes up the bulk of the investment in companies and is also very important, particularly is so effective in corporate profitability.

Shin and Soenen (2013) observe that a well-managed enterprise normally keeps average collection period normally lesser than average payment period so as to minimize investment in receivables and also honor its short time obligations on time minimizing cost of funds. Average payment period is basic test of the business's good or bad activity or operation and its important symbol for making good planning for increase or decrease working capital efficiently. This is because working capital is more effected from sundry debtors and sundry creditors.

Besley and Brigham (2009) described cash conversion period as the length of time from the payment for the purchase of raw materials to manufacture products until the collection of account receivable associated with high profitability, because it improves the efficiency of using the working capital. Cash conversion period of individual firms as well the collective cycle of the industry, highlights how the firms are performing; moreover it also helps to dig out the areas where further improvement is required (Hutchison, 2007). For the business owners, one of the most important tasks is to estimate and evaluate cash flows of the business, to well identify the long run and short run cash inflows and outflows to timely sort out the cash shortages and excess to formulate financing and investing strategies respectively. It also helps in planning the payments to creditors on time to avoid losing reputation and trust of the customers and to avoid potential bankruptcy.

The average number of day's accounts receivable is used as a measure of accounts receivable policy. It represents the average number of days that the company uses to collect payments from its customer. This metric is received by dividing the sum of the opening and ending balance of account receivables with two and divide this with the net sales and then multiply the outcome with the average number of days in a year. Similar to the inventory, a low number of days is desirable to keep the cash conversion cycle short (Lantz, 2008). Account payables plays a critical role in managing working capital because delaying bill payments is one of the tools for management to have access to an inexpensive source of financing. However, the opportunity cost of keeping high account payables may hurt the business if an early payment discount is offered (Ruichao, 2013).

Accounts receivable is an interim debt arising through credit sales and recorded as accounts receivable by the seller and accounts payable by the buyer (Brigham & Eugene, 2012). According to Sundgren and Schneeweis (2010) optimum accounts receivable in a business is one that maximizes the value of a firm when the incremental rate of return (marginal rate of return) of an investment is equal to the incremental cost of funds (marginal cost of capital) used to

finance the investment. The incremental cost of funds is the rate of return required by the suppliers of funds given the risk of investment in Debtors. As the firm liberalizes its credit policy its investments in debtors becomes more risky because of increase in slow paying and defaulting debtors.

Accounts receivable constitute a substantial portion of current assets of several companies' balance sheets, highlighting the importance of the management and financing of this type of asset since it plays an important role in a firm's performance, risk and value (Smith, 2010). A firm is therefore required to maintain a balance between liquidity and profitability while conducting its day to day operations. Liquidity is a precondition to ensure that a firm is able to meet its short-term obligations and its continued flow can be guaranteed from a profitable venture.

### **Financial Performance of EWASCO**

Embu Water and Sanitation Company (EWASCO) was incorporated as a private company limited by ordinary share capital by the defunct Embu Municipal Council in March 2003. The Company became operational in March 2005 and the financial operations of the Company were separated from those of the Municipal Council in July 2005. Hence, the Company has practically existed since July, 2005. In new dispensation the company is wholly owned by the County Government of Embu. The mandate of EWASCO is to supply water and provide sewerage services in the Company's areas of jurisdiction. Its core functions are; Water supply infrastructure development, sewerage infrastructural development, operation and rehabilitation/maintenance of the infrastructure, sourcing, treatment, distribution of water and provision of sewerage services; and financial management such as billing, revenue collection and efficient application of financial resources (EWASCO, 2017).

EWASCO intends to; reduce non-revenue water from 38% to 20% by 2016; reduce operational costs in material and resources from 40% to 20% by 2016; and finally to increase the revenue collection efficiency from 85% to 95% by 2020 (EWASCO, 2017). However, EWASCO has been facing serious challenges, which have resulted to delays in the payment for water by their customers. For instance, from the fiscal year (FY) 2008 to FY 2012, the total amount billed by WRMA to all WSPs in Embu County was Ksh. 13,112,216, out of which Ksh. 9,406,542 was paid by the WSPs. This is to say that the total arrears unpaid for that period equals to 3,705,674, which translates to 28.26% of the total bill charged. The WSPs failed to settle the arrears owing to consumers' failure to pay promptly for water use. This has led to financial difficulties, which means reduction of water delivery, hence reduced access to water by Kenyan consumers. This renders water to cease from being a human right but a commodity for a few usually the economically able (Kinuthia, 2009).

EWASCO has been under rapid change in terms of NRW/UFW management for the purpose of efficiency of the water supply system, embracing modern technology, fast and quality services

and to be the leading water service provider in the country through application innovative means/ procedures and by use of available resources. On the period from 2005 to 2006, they had good ratio of NRW at 25%, but that figure is suspicious because they had not good database. In 2006, the ratio of NRW was around 60% that was result from wide expansion their service area. In 2008, NRW ratio decreased to 50% as a result of upgrading line. In 2009, they continuously did burst/leak management, but NRW ratio still high around 50%. From 2010, NRW management program was started. They keep trying to reduce NRW ratio with various act. At the March of 2011, NRW ratio decreased up to 35%. In EWASCO, they also established management system of billing with database to prevent from commercial loss (EWASCO, 2017).

## **STATEMENT OF THE PROBLEM**

Kenya undertook major reforms in the water sector since 2000s to enhance service provision. A major aspect of this was ensuring financial viability of water service providers. However, most water and sanitation companies are financially unsustainable (Hukka & Katko, 2015). According to Prasad (2016) most of these water and sanitation companies are faced with weak management structures, processes and systems and poor systems of revenue collection. EWASCO, like other water and sanitation company in Kenya operate in conditions which limit its ability to maximize revenues because of inadequate infrastructure coverage, dilapidated infrastructure that predispose the company to lose quite a big percentage of supplied water, and the inability to set economic water tariffs. The company's operations are affecting by an array of operating costs that include high electricity bills, staff costs, inefficient metering and billing and an obligation to subsidize water costs to the poor customers. These operating conditions to a large extent affected the financial performance of the company. EWASCO has risen to be one of the best performing company in the water sector in Kenya surpassing other water companies in the sector that had consistent financial performance over the years (Waweru, 2013). However, EWASCO recorded KSh 19.7 billion in after-tax profit compared to 2016's Ksh 19.72 billion. The decline is attributed to low interest rates, increased fees and commissions resulting from use of digital platforms and slowdown in economic activity. Therefore, there is need to investigate how accounts receivable management influences the financial performance of EWASCO. Kennedy (2014) carried out a study on accounts receivables management and financial performance and established that accounts receivable management has a significant influence of financial performance. However, the study used cross-sectional research design and the study context was in manufacturing firms in Nakuru County, Kenya. Mbula, Memba and Njeru (2016) study investigated the effect of accounts receivable on financial performance of firms funded by Government Venture Capital in Kenya and found that there is a positive relationship between accounts receivables and financial performance of firms funded by government venture capital in Kenya. However, the study adopted a census approach because of the small number of firms therefore the findings may not be conclusive. Lyani (2017) study examined the relationship between Accounts Receivable Management Practices and organizational growth and revealed that efficient Accounts receivable management practices, when adopted by Small and Medium

Enterprises (SMEs) lead to growth. However, the study focused on SMEs in Kakamega County, Kenya. This study sought to determine the effects of accounts receivable management on financial performance of Embu Water and Sanitation Company limited.

## **GENERAL OBJECTIVE**

The general objective of this study was to determine the effects of accounts receivable management on financial performance of Embu Water and Sanitation Company limited, Embu County, Kenya.

## **SPECIFIC OBJECTIVES**

1. To determine the effects of inventory turnover period on financial performance of Embu Water and Sanitation Company limited, Embu County, Kenya
2. To determine the effects of average payment period on financial performance of Embu Water and Sanitation Company limited, Embu County, Kenya
3. To establish the effects of cash conversion period on financial performance of Embu Water and Sanitation Company limited, Embu County, Kenya
4. To establish the effects of average collection period on financial performance of Embu Water and Sanitation Company limited, Embu County, Kenya

## **THEORETICAL REVIEW**

### **Operational Motives Theory**

The operational motive theory by Emery (1987) stresses the role of trade credit in smoothing demand and reducing cash uncertainty in the payments (Ferris, 1981). In the absence of trade credit, firms would have to pay for their purchases on delivery. This makes it possible to reduce uncertainty about the level of cash that needs to be held to settle payments (Ferris, 1981) and provides more flexibility in the conduct of operations, since the capacity to respond to fluctuations is provided elsewhere (Emery, 1984, 1987). This was supported by Long, Malitz and Ravid (1993), who found that firms with variable demand granted a longer trade credit period than firms with stable demand. The existence of sales growth in a firm is also a factor that positively affects the demand for finance in general, and for trade credit in particular.

This theory was relevant to the study as it shows that when credit is tight, financially stable firms will increasingly offer more trade credit to maintain their relations with smaller customers, who are “rationed” from direct credit market participation. Consequently it should be expected that firms with greater increases in sales will use more trade credit in order to finance their new investment in current assets. This theory explains inventory turnover period variable.



## **Transactions Cost Theory**

Transactions cost theory by Ferris (1981) show that trade credit reduces transactions costs by allowing the parties to separate payment and delivery cycles when delivery is uncertain. The customer can lower the transactions demand for cash if payment can be separated from delivery. Bougheas (2009) incorporate this basic idea in a formal two period model which incorporates the trade-off between inventories and trade credit under conditions of stochastic demand. Using this model they derive empirically testable propositions with respect to accounts payable and accounts receivable and their relationship with changes in costs of inventories, profitability, risk profile, liquidity position of firms and bank loans. Brick & Fung (1984) argued that, all other things being equal, buyers with low effective tax rates would prefer trade credit and therefore are more likely to have higher levels of accounts payable relative to similar buyers with a higher effective.

This theory was relevant to the study as it concerns itself with efficiency especially in the realm of transaction costs. TCT requires the organization to weigh all costs involved and then compare the costs of production and transaction within their organization versus the production and transaction costs associated with outsourcing. This theory explains average payment period variable.

## **Cash Conversion Cycle Theory**

The cash conversion cycle, which represents the interaction between the components of working capital and the flow of cash within a company, can be used to determine the amount of cash needed for any sales level. Gitman (1974) developed cash conversion cycle as part of operating cycle which is calculated by adding inventory period to accounts receivables period and then subtracting accounts payables from it. Its focus is on the length of time between the acquisition of raw materials and other inputs and the inflows of cash from the sale of finished goods, and represents the number of days of operation for which financing is needed.

The cash conversion cycle theory is a dynamic measure of ongoing liquidity management, since it combines both balance sheet and income statement data to create a measure with a time dimension (Jose & Lancaster, 1996). While the analysis of an individual firm's CCC is helpful, industry benchmarks are crucial for a company to evaluate its CCC performance and assess opportunities for improvements because the length of CCC may differ from industry to industry. Therefore the correct way is to compare a specific firm to the industry in which it operates.

The cash conversion cycle is used as a comprehensive measure of working capital as it shows the time lag between expenditure for the purchase of raw materials and the collection of sales of finished goods (Padachi, 2006). Day-to-day management of a firm's short term assets and liabilities plays an important role in the success of the firm. Firms with growing long term prospects and healthy bottom lines do not remain solvent without good liquidity management (Jose & Lancaster, 1996).

This theory is relevant to the study because it directly affects the liquidity and profitability of the company. It deals with current assets and current liabilities. Since every corporate organization is extremely concerned about how to sustain and improve profitability, hence they have to keep an eye on the factors affecting the profitability. In this regard, liquidity management having its implications on risks and returns of the corporate organizations cannot be overlooked by these organizations and hence cash conversion cycle being indicator of the liquidity management needs to be explored as to how it may affect the profitability of the corporate units. This theory explains cash conversion period variable.

## **EMPIRICAL REVIEW**

### **Inventory Turnover Period and Financial Performance**

Mwaura (2017) carried out a study on the effect of inventory turnover on the financial performance of medium and large retail supermarkets in Kenya. The study adopted descriptive cross-sectional research design. The data to be collected included sales, cost of goods, current assets and liabilities, total assets, total liabilities, profit before interest and tax, closing inventory balance and net profit for each year. The results were analyzed using stata software. The data collected covered the years 2012 - 2016. From the results of correlation analysis, there is a strong positive and statistically significant correlation between inventory turnover and financial performance of medium and large retail supermarkets in Kenya.

Khan, Deng and Khan (2016) study investigated an empirical analysis of inventory turnover performance within a Local Chinese Supermarket. The data drawn from their internal database comprise of 41 months and included the information about sales of products belonging to 27 different products categories (food and non food) and store containing over 20,000 products at a time. The analysis reveals that there is a negative correlation between Inventory Turnover and profit margin percentage, while positive correlation exists between Inventory Turnover and Sale surprise across all categories and modes.

Shardeo (2015) study examined the impact of inventory management on the financial performance of the firm. All data for this paper is secondary data and taken from various sources. Some of the sources are from journals, articles, magazines and referred books from the library. A correlation was carried out on inventory turnover with profitability and a Pearson correlation coefficient was done to show the impact of inventory management on the profitability of the firm. The study found that that there is impact of inventory management on the financial condition of the firm.

Bernard and Noel (2011) in their study found that there is a significant relationship between inventory and sales and profits with a review about the product inventory structure and its relationship to profit and sales. Yasin et al. (2013) evaluated the efficiency of inventory in predicting future stock returns. They analyzed data from a 25 – year period. To address this issue, they used four-factor model of Fama and Karahat. They strongly concluded that changes in

productivity of inventory can explain stock returns in other words; changes in productivity of inventory could be useful in predicting stock returns.

### **Average Payment Period and Financial Performance**

Yahaya (2016) carried out a study on effects of working capital management on the financial performance of the pharmaceutical firms in Nigeria. The study covers a period of eight years 2006 to 2013. Data for the study were collected through secondary sources using annual financial reports and bulletins of Nigeria stock exchange of the various firms covering the period under study. The study found that average payment period was significantly and positively related with financial performance.

Kumaraswamy (2016) study investigated the impact of working capital on financial performance of Gulf Cooperation Council Firms for a period of 2008-2014. Four hypotheses pertaining to average payment period components were investigated using linear regression models. The study identified positive relationship between average payment period with profitability and a negative relationship amid average collection period and firm profitability. The result of regression model indicates average payment period to be the most significant factors followed by average payment period.

Madugba and Ogbonnaya (2016) study investigated the effects of average payment period and financial performance: evidence from manufacturing companies in Nigeria. The study employed multiple regressions in analyzing the data sourced from the published financial statement of the firms under the study. A significant outcome of the study is that Average Payment Period impacts on both earnings per share and return on capital employed. The implication is that efficient management average payment period will improve the financial performance of the manufacturing firms, hence the study recommends that professionals should be hired by these firm to ensure proper management of stock to avoid stock out. Conclusively, the study has shown that good management of average payment period will keep manufacturing firms a float.

### **Cash Conversion Period and Financial Performance**

Mohamed (2013) study investigates the effect of cash conversion cycle on the profitability of firms listed on the Nairobi Securities Exchange. The relation between the firm's cash conversion cycle and its profitability is examined using dynamic panel data analysis for a sample of firms listed on The Nairobi Securities Exchange for the period from 2008 to 2012. The analysis is applied at the levels of the full sample and divisions of the sample by industry and by size. The results indicated that there is a significant and negative relationship between the cash conversion cycle and return on asset. The firms with shorter cash conversion cycles are more likely to be profitable than firms with longer cash conversion cycles.

Yasir, Majid and Yousaf (2014) study examined the effects of cash conversion cycle and its impact upon firm performance: An evidence from cement industry of Pakistan. The study used

the sample of 16 firms selected from cement industry of Pakistan for the period of six years from 2007 to 2012. The correlation and regression analysis are used to examine the relationship between cash conversion cycle (CCC) and firm's performance i.e. return on assets (ROA). The findings of the study shows negative relationship between firms cash conversion cycle and profitability.

Anser and Malik (2013) study investigated how cash conversion cycle affects the firms' profitability of listed manufacturing companies of Pakistan. Study takes into consideration 5 years financial statements data starting from 2007 to 2011. Results showed that manufacturing companies are having low average return on asset and high average return on equity with reasonable average cash conversion cycle. Regression results after adjusting for heteroskedasticity of data to minimize the effects of outliers, showed that cash conversion cycle is having significantly inverse association with both return on assets and equity indicating that lesser the cash conversion cycle greater would be the profitability measured through return on assets and equity.

Muturi (2015) study investigated the effects of cash conversion cycle on profitability of Tea Factories in Meru County, Kenya. A census method was used to collect primary data from all the seven tea factories in the county for a period of five years starting from 2009 to 2013. The correlation and regression analyses were used to analyze and describe the nature of the relationship between (CCC) and the firm's profitability. A lot of literature has pointed out that efficient management of cash has significantly influenced the firm's profitability. This study found out that the CCC significantly negatively affects the tea firm's profitability.

### **Average Collection Period and Financial Performance**

Paul et al (2013) study analyzed the effects of working capital management on the profitability of 9 manufacturing firms listed on the Nairobi Securities Exchange. The result of multiple regression and correlation analyses revealed that gross operating profit was positively correlated with average collection period and average payment period but negatively correlated with cash conversion cycle. The relationship between inventory turnover in days and gross operating profit was insignificant.

Iyewumi et al (2015) investigated the relationship between working capital management and firm's profitability in the oil and gas sector in Nigeria. The study is based on secondary data collected from sample of two listed oil firms in Nigeria for the period 1995 to 2011. The results of correlation analysis and OLS estimation technique provide that firm's profitability in Nigeria is affected by; the working capital management components which are; cash conversion cycle, average days' receivables, average days payables, average days inventories. Second, size of the firm is equally another important variable found to affect the profitability of firms.

Sabo et al. (2015) examines the impact of working capital management on corporate profitability of 7 listed firms in Nigeria for the periods of 2008 to 2012. The results of descriptive statistics

and GLS regression analysis confirm a positive relationship among Average Collection Period (ACP), Current Ratio (CR) and the size of the firm (LOGSIZE) with Profitability and a negative relationship with Inventory Turnover Period (ITP) and Average Payment Period (APP).

Falope and Ajilore (2009) used a sample of 50 Nigerian quoted non-financial firms for the period 1996 -2005. Their study utilized panel data econometrics in a pooled regression, where time-series and cross-sectional observations were combined and estimated. They found a significant negative relationship between net operating profitability and the average collection period, inventory turnover in days, average payment period and cash conversion cycle for a sample of fifty Nigerian firms listed on the Nigerian Stock Exchange. Furthermore, they found no significant variations in the effects of working capital management between large and small firms.

### **Financial Performance**

Njiiri (2015) study investigated on the relationship between investment and financial performance of Insurance Companies in Kenya. The study established insurance companies in Kenya invest their funds in three popular areas. These include investments in real estate that holds the largest funds in terms of investments; investments in deposits with other financial institutions where the firms hold certificates of deposits and investment in Government securities.

Alan (2017) study examined the effect of firm performance on impact investment in Kenya: A Case Study of Jamii Bora Bank. Findings indicated that there is a strong positive correlation between operational efficiency and impact investment in Jamii Bora Bank. In other words, an increase in operational efficiency leads to an increase in impact investment. From the findings, operational efficiency explains 77.3% of the variation on impact investment at Jamii Bora Bank.

Ongore and Kusa (2013) study focused on determinants of financial performance of commercial banks in Kenya. The findings showed that bank specific factors significantly affect the performance of commercial banks in Kenya, except for liquidity variable. But the overall effect of macroeconomic variables was inconclusive at 5% significance level. Thus, it can be concluded that the financial performance of commercial banks in Kenya is driven mainly by board and management decisions, while macroeconomic factors have insignificant contribution.

## **RESEARCH METHODOLOGY**

### **Research Design**

This study adopted descriptive research design to test the relationship variables of the study. According to Kothari (2004), the major purpose of descriptive survey is to describe the present status of a phenomenon, determining the nature of the prevailing conditions, practices, attitudes and seeking accurate descriptions. Saunders (2011) indicates that descriptive research design

helps establish causal relationships between variables by laying emphasis on studying a situation or a problem. The major purpose of descriptive research was to provide information on characteristics of a population or phenomenon. Descriptive research design was chosen because it would enable the researcher to generalise the findings to a larger population and it is more precise and accurate since it involves description of events in a carefully planned way.

### **Target Population**

A target population is an entire group of individuals, events or objects having common characteristics that conform to a given specification (Mugenda & Mugenda, 2003). The target population of interest in this study was Embu Water and Sanitation Company (EWASCO).

### **Data Collection Instruments**

The study used secondary data. This information was useful for generating additional statistics for the study from already documented information or to be had reports. Williams (2011) in addition provide an explanation for that secondary statistics is a useful quantitative approach for comparing historic or contemporary personal or public information, reviews, authorities files and evaluations. The secondary data was obtained from the published financial statements of Embu Water and Sanitation Company (EWASCO).

### **Data Collection Procedure**

Creswell and Clark (2007) observe that data collection is the process of gathering and measuring information on targeted variables in an established systematic fashion, which then enables one to answer relevant questions and evaluate outcomes. The study used secondary data which was obtained from the accounts and finance department. The Finance managers, credit controllers and accountants were approached for permission to conduct the research.

### **Data Analysis and Presentation**

According to Kothari (2004) data analysis is the process of inspecting, cleansing, transforming, and modeling data with the goal of discovering useful information, suggesting conclusions, and supporting decision-making. The study relied on quantitative data to arrive at the findings of the study. Descriptive statistics and inferential statistical techniques were used to analyze the data and presented in terms of tables using Statistical Package for Social Sciences (SPSS) version 17.0. Multivariate regression model based on cross sectional pooled data from the annual reports and other financial statements to assess the effect of accounts receivable management on the financial performance of Embu Water and Sanitation Company Limited (EWASCO) was conducted. Regression analysis and correlation analysis were carried out to analyze the relationship between accounts receivable management and financial performance. Test of significance was carried out for all variables using t-test at a 5% level of significance. To

examine the relationship among these variables, Pearson correlation coefficients was calculated. The regression equation was in the following form:

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \varepsilon$$

Where: Y = Financial Performance;  $X_{1it}$  = Inventory turnover period;  $X_{2it}$  = Average payment period;  $X_{3it}$  = Cash conversion period;  $X_{4it}$  = Average collection period;  $\beta_1$  = Coefficient of Determination;  $\varepsilon$  = Error Term

## **RESEARCH RESULTS**

The general objective of this study was to determine the effects of accounts receivable management on financial performance of Embu Water and Sanitation Company limited, Embu County, Kenya. To determine the effects of inventory turnover period, average payment period, cash conversion period and average collection period on financial performance of Embu Water and Sanitation Company limited, Embu County, Kenya. The study adopted descriptive research design and data was obtained from the financial statements of the company.

The first research objective sought to determine the effects of inventory turnover period on the financial performance of EWASCO in Embu County. Inventory turnover period was operationalized using such measures such as sales and numbers of days. The study established that inventory turnover in days has negative relationship with Return on Equity which means that companies financial performance can be increased by reducing inventory in days.

The second research objective sought to determine the effects of average payment period on the financial performance of EWASCO in Embu County. The results of descriptive statistics analysis showed that activities that measured average payment period had greater impact on the financial performance of EWASCO. Statistical analysis of the data gathered revealed that average payment period has a statistically significant effect on financial performance of EWASCO in Embu County, Kenya.

The third research objective sought to determine the effects of cash conversion period on the financial performance of EWASCO in Embu County. In this study, the researcher measured cash conversion period in terms of accounts payable, net credit purchases and number of working days. The results of descriptive statistics analysis showed that activities that measured cash conversion period had greater impact on the financial performance of EWASCO.

The fourth research objective sought to determine the effects of average payment period on the financial performance of EWASCO in Embu County. Average payment period was operationalized using indicators as accounts receivable, net credit sales and number of sales. Average collection period was found to be significant positive association with the financial performance of EWASCO in Embu County, indicating that if time period of debtor's payment is

increased then overall financial performance of Embu Water and Sanitation Company Limited in Embu County, Kenya also improves.

### **CORRELATION ANALYSIS**

Correlation analysis was done to measure the degree of association between the accounts receivables management and the firms' financial performance (Inventory Turnover period (in Days), Average Payment Period (in Days), Cash Conversion period, debt ratio and cash ratio and to check whether they increase financial performance of Embu Water and Sanitation Company Limited, Embu County, Kenya. The results are shown in Table 1.

**Table 1: Correlation Analysis**

<b>Variables</b>		<b>Return on Equity (ROE)</b>
Inventory Turnover Period (in Days)	Correlation (p-value)	-0.245** (0.00)
Average Payment Period (In days)	Correlation (p-value)	-0.203** (0.01)
Cash Conversion Period	Correlation (p-value)	-1.458** (0.02)
Debt Ratio	Correlation (p-value)	-2.003** (0.00)
Average Collection Period	Correlation (p-value)	(0.001) (0.00)
Current Ratio	Correlation (p-value)	0.688 (0.01)

The results in Table 1 show the correlation analysis among the firms 'financial performance variables. The result shows that Embu Water and Sanitation Company Limited financial performance variable Return on Equity (ROE) was significantly affected on Current Ratio with positive correlation of 0.688 and Inventory Turnover with negative correlation of 0.245. Net collection period is also negative correlated by Return on Equity. Embu Water and Sanitation Company Limited Return on Equity is also found to be negatively associated by significant correlation with two most important dimensions accounts receivables management, that is, Cash Conversion period and average payment period in Days with the value of 1.458 and 0.203 respectively.

These findings are in line with the findings of Gaur, Fisher and Raman (2014) who showed that inventory turnover is negatively correlated with profit margin percentage and positively correlated with sale surprise across different firms. Mathuva (2009) in the study on the influence of working capital management components on corporate profitability: a survey on Kenyan listed firms confirmed negative relation between debtors management with firm performance while the creditor management had positive relation with firm performance.



Falope and Ajilore (2009) used a sample of 50 Nigerian quoted non-financial firms for the period 1996 -2005. Their study utilized panel data econometrics in a pooled regression, where time-series and cross-sectional observations were combined and estimated. They found a significant negative relationship between net operating profitability and the average collection period, inventory turnover in days, average payment period and cash conversion cycle for a sample of fifty Nigerian firms listed on the Nigerian Stock Exchange.

## **REGRESSION ANALYSIS**

Multiple regression analysis was conducted so as to test relationship among variables. Statistical Package for Social Sciences (SPSS) version 17.0 was used to code, enter and compute the measurements of the multiple regressions for the study.

**Table 2: Model Summary**

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
1	.749 <sup>a</sup>	.562	.546	.610

a. Predictors: (Constant), Inventory turnover period, average payment period, cash conversion period, average collection period

Adjusted R squared is coefficient of determination which tells us the variation in the dependent variable due to changes in the independent variable. From the findings in Table 2 the value of adjusted r squared was 0.546 an indication that there was variation of 54.6% on financial performance of EWASCO, Kenya was due to changes in Inventory turnover period, average payment period, cash conversion period, average collection period at 95% confidence interval. Additionally, this therefore means that factors not studied in this research contribute 45.4% of financial performance of EWASCO and a further research should be conducted to investigate the other factors (45.4%) that affect financial performance of the company.

**Table 3: Analysis of Variance (ANOVA)**

<b>Model</b>		<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
1	Regression	40.037	3	13.346	35.889	.000 <sup>a</sup>
	Residual	31.236	84	.372		
	Total	71.273	87			

a. Predictors: (Constant), Inventory turnover period, average payment period, cash conversion period, average collection period

b. Dependent Variable: Financial Performance

The significance value is 0.000<sup>a</sup> which is less than 0.05 thus the model is statistically significance in predicting how various factors affect financial performance of on financial performance of EWASCO, Kenya. The F critical at 5% level of significance was 13.718. Since F calculated is greater than the F critical (value = 35.889), this shows that the overall model was significant. The relationship ( $p < 0.05$ ) indicated a linear relationship among the variables under

the study meaning there was 95% chance that the relationship among the variables was not due to chance.

**Table 4: Regression Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.752	.292		2.579	.001
	Inventory Turnover Period	.760	.080	2.411	4.652	.000
	Average Payment Period	.688	.070	1.534	5.529	.002
	Cash Conversion Period	.785	.040	3.180	2.124	.004
	Average Collection Period	.668	.041	4.162	1.664	.001

a. Dependent Variable: Financial Performance

The regression equation after estimations was as shown below:

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \varepsilon = 0.752 + 0.760 + 0.688 + 0.785 + 0.668$$

According to the regression equation established, taking all factors into account (Inventory Turnover period (in Days), Average Payment Period (in Days), Cash Conversion period, and Average collection period) financial performance of Embu Water and Sanitation Company Limited measured by ROE will be 0.752 (75.2%). As shown on Table 4.3 inventory turnover period, average payment period, cash conversion period and average collection period had a positive and significant effect on financial performance of mbu Water and Sanitation Company Limited as indicated by beta values. The relationships ( $p < 0.05$ ) are all significant with inventory turnover period ( $\beta=2.411$ ,  $p < 0.05$ ), average payment period ( $\beta = 1.534$ ,  $p < 0.05$ ), cash conversion period ( $\beta = 2.124$ ,  $p < 0.05$ ) and average collection period ( $\beta = 4.162$ ,  $p < 0.05$ ).

The Standardized Beta Coefficients give a measure of the contribution of each variable to the model. A large value indicates that a unit change in this predictor variable has a large effect on the criterion variable. The t and Sig values give a rough indication of the impact of each predictor variable. A big absolute t value and small p value suggests that a predictor variable is having a large impact on the criterion variable. At 5% level of significance and 95% level of confidence, inventory turnover period had a p-value of 0.000; Average payment period had a p-value of 0.002; Cash conversion period had a p-value of 0.004; Average collection period had a p-value of 0.001. Therefore, the most significant factor was inventory turnover period.

The findings of this study corroborates with literature review by Saravanan et al. (2012) who observed that high inventory turnover quickly is answered by changes in the purchase amount and low inventory turnover is answered by changes in prices. Ganesan (2007) study on the

effectiveness of working capital management on profitability in selected telecommunication equipment industry observed that days of the average creditors positively affected the profitability of these firms. Rizwan (2016) examined the impact of the liquidity management on the performance of the 64 Pakistani non-financial companies constituting Karachi Stock Exchange (KSE) 100 Index for the period of 2006-2011. The results of descriptive statistical, correlation and multivariate regression

Further the study carried out the hypothesis testing between accounts receivables management and financial performance of Embu Water and Sanitation Company Limited.

**HO<sub>1</sub>: There is no significant effect on inventory turnover period and financial performance**

The null hypothesis was thus rejected because t statistics 4.652 has a p value of 0.00 less than 0.05.

**HO<sub>1</sub>: There is no significant effect on average payment period and financial performance**

The null was thus rejected based on the fact that t statistics 5.529 has a p value of 0.00 which is less than 0.05.

**HO<sub>1</sub>: There is no significant effect on cash conversion period and financial performance**

The null hypothesis was not rejected because t statistics 2.124 has a p value of 0.035 which is less than 0.05

**HO<sub>1</sub>: There is no significant effect on average collection period and financial performance**

The null hypothesis was rejected based on the fact that t statistics 1.664 has a p value 0.001 which is higher than 0.05.

**Table 5: Accounts Receivables and Financial Performance**

<b>Accounts Receivables</b>	<b>Financial Performance</b>
Pearson Correlation	0.812
Sig. (2-tailed)	0.001
N	15

From the results in Table 5, A Pearson coefficient of 0.812 and p-value of 0.001 shows a strong, significant, positive relationship between accounts receivables management and financial performance of Embu Water and Sanitation Company Limited in Embu County, Kenya. Therefore based on the study's findings the study rejects the null hypotheses and accepts the alternatives that there is a significant relationship between accounts receivables and financial performance of Embu Water and Sanitation Company Limited in Embu County, Kenya.

## **CONCLUSIONS**

On inventory turnover period, the study concludes that there is a strong positive and statistically significant correlation between inventory turnover period and financial performance of EWASCO in Embu County, Kenya. They study also concludes that changes in productivity of inventory can explain stock returns in other words; changes in productivity of inventory could be useful in predicting stock returns.

On average payment period, the study concludes that there is a strong positive and statistically significant correlation between average payment period and financial performance of EWASCO in Embu County, Kenya. The implication is that efficient management of average payment period will improve the financial performance of the organization. The study also concludes that good management of average payment period will keep EWASCO a float.

On cash conversion period, the study concludes that there is a strong positive and statistically significant correlation between cash conversion period and financial performance of EWASCO in Embu County, Kenya. EWASCO creates profits by handling correctly and keeping each component of the cash conversion cycle in regard to accounts receivable, accounts payable and inventory to an optimal level.

On average collection period, the study concludes that there is a strong positive and statistically significant correlation between average collection period and financial performance of EWASCO in Embu County, Kenya. The relationship between number of days, net credit sales and accounts receivable was also significant. EWASCO minimizes their average collection period so as to improve their financial performance.

## **RECOMMENDATIONS**

Inventory turnover period, average payment period, cash conversion period and average collection period was all found to have a positive effect on financial performance of Embu Water and Sanitation Company Limited (EWASCO). Therefore, the study recommends that EWASCO should increase its average collection period, inventory turnover periods and cash conversion period in order to improve their financial performance. In order to improve their financial performance there is need to increase the leverage ratios currently present. Higher leverages will lead to higher financial performance. This can be improved by increasing the debt levels. The study also recommends that there should be proper inventory management system in the organization to avoid over stock of inventory resulting efficient outcome of investment and engage in better relationship with those suppliers who allow long credit time period and those customers who allow short payment period.

## REFERENCES

- Ahmet, G. S., & Emin, H. C. (2012). Effects of working capital management on firms performance. *International Journal of Economics and Financial Issues*, 2(4), 488-495.
- Alan, N. (2017). *The Effect of Firm Performance on Impact Investment in Kenya: A Case Study of Jamii Bora Bank* (Doctoral dissertation, United States International University-Africa).
- Anser, R., & Malik, Q. A. (2013). Cash conversion cycle and firms profitability—a study of listed manufacturing companies of Pakistan. *IOSR Journal of Business and Management*, 8(2), 83-87.
- Barnett, M. L. & Salomon, R. M. (2012). Beyond Dichotomy: The Curvilinear Relationship between Social Responsibility and Financial Performance. *Strategic Management Journal*, 27, 11-56.
- Bougheas, S. Mateut. S. & Mizen, P. (2009). Corporate trade credit and inventories: New evidence of a trade-off from accounts payable and receivable. *Journal of Banking and Finance*, 33(2), 300-307
- Brigham, F. & Eugene, R. (2012). *Fundamental of Financial Management*, 4<sup>th</sup> edition.  
Company.
- Creswell, J. W., & Clark, V. L. P. (2007). Designing and conducting mixed methods research.
- Deloof M., & Jegers, M. (2013). Trade credit, product quality, and intra group trade: some European evidence. *Journal of Financial Management*, 25, 33-43.
- Duru, A. N., Ekwe, M. C., & Okpe, I. I. (2014). Accounts receivable management and corporate performance of companies in the food & beverage industry: evidence from Nigeria. *European Journal of Accounting Auditing and Finance Research*, 2(10), 34-47.
- Emery, G. (1984). A pure Financial Explanation for Trade Credit. *Journal of Financial and Quantitative Analysis*, 9, 67-70.
- Falope, O. & Ajilore, O. (2009). Working capital management and corporate profitability: Evidence from panel data analysis of selected quoted companies In Nigeria. *Research Journal of Business Management*, 3(3), 74-84.
- Ferris, J. S. (1981). A Transactions Theory of Trade Credit Use. *Quarterly Journal of Economics*, 96, 243 – 270
- Gill, A., Bigger, N., & Atnur, C. (2010). The Relationship between working capital management and profitability: Evidence from the United States. *Business and Economic Journal*, 10, 1-9.

- Gitman, L. J. (1974). Estimating corporate liquidity requirement: A simplified approach. *Finance Revision Journal*, 9(1), 26-35.
- Hair, J. F. (2015). *Essentials of business research methods*. ME Sharpe.
- Harris, A. (2010). Working capital management: difficult, but rewarding. *Financial Executive*, 21(4), 52-54.
- Hukka, J. J., & Katko, T. S. (2015). Refuting the paradigm of water services privatisation. *In Natural Resources Forum*, 27(2), 142-155
- Huselid, M. (2010). The impact of human resource management practices on turnover, productivity and corporate financial performance. *Academy of Management Journal*, 38, 635-670.
- Hutchison, P. D., (2012). Cash-to-cash: the new supply chain management metric. *International Journal of Physical Distribution & Logistics Management*, 32(4), 288-298
- Ittner, C. & Larcker, D. (2013). Are Nonfinancial Measures Leading Indicators of Financial Performance? An Analysis of Customer Satisfaction. *Journal of Accounting Research*, 36(3), 1-36.
- Iyewumi, T. A., Remy, H., & Omotayo, M. (2015). Working capital management and firm's profitability: the case of oil and gas industry in Nigeria. *Journal of Electronics and Computer Science*, 2(3), 1-21
- Jose, M. L., Lancaster, C., & Stevens, J. L. (1996). Corporate returns and cash conversion cycles. *Journal of Economics and finance*, 20(1), 33-46.
- Juan, G. T. P., & Martinez-Solano, P. (2014). Effects of working capital management on SME profitability. *International Journal of managerial finance*, 3(2), 164-177.
- Kennedy, M. H. (2014). *Accounts Receivables Management and Financial Performance of Manufacturing Firms in Nakuru County, Kenya* (Doctoral dissertation, School of Business, University of Nairobi).
- Khan, J. A., Deng, S., & Khan, M. H. A. (2016). An Empirical Analysis of Inventory Turnover Performance Within a Local Chinese Supermarket. *European Scientific Journal, ESJ*, 12(34), 214 - 225
- Kombo D. K. & Tromp D. L. A. (2006). *Proposal and Thesis Writing – A Production*: Nairobi: Paulines Publications Africa.
- Kothari, C. R. (2004). *Research methodology: Methods and techniques*. New Age International.
- Kumaraswamy, S. (2016). Impact of Working Capital on Financial Performance of Gulf Cooperation Council Firms. *International Journal of Economics and Financial Issues*, 6(3), 1136-1143.
- Lee, S. (2012). Ownership Structure and Financial Performance: Evidence from Panel Data of South Korea. *Corporate Ownership and Control*, 6(2), 1-30.

- Long, H., Malitz, B. & Ravid, S. (1993). Trade Credit, Quality Guarantees, and Product Marketability. *Financial Management*, 22(4), 117–127.
- Lyani, M. N. (2017). *Relationship between Accounts Receivable Management Practices and Growth of Small and Medium Enterprises in Kakamega County, Kenya* (Doctoral dissertation, COHRED-JKUAT).
- Madugba, J. U., & Ogbonnaya, A. K. (2016). Working capital management and financial performance: evidence from manufacturing companies in Nigeria. *European Journal of Accounting, Auditing and Finance Research*, 4, 98-106.
- Mbula, K. J., Memba, S. F., & Njeru, A. (2016). Effect of Accounts Receivable on Financial Performance of Firms Funded by Government Venture Capital in Kenya. *Journal of Economics and Finance*, 7(1), 62-69.
- McTaggart, Mankins, C., & Kontes, P. W. (2014). *The value imperative: managing for superior shareholder returns*. New York (N.Y.). Free press.
- Mohamed, A. S. (2013). *The Effect of Cash Conversion Cycle on the Profitability of Firms Listed on the Nairobi Securities Exchange* (Doctoral dissertation, School of Business, University of Nairobi).
- Mugenda, O. M., & Mugenda, A. G. (2003). Qualitative and quantitative approaches. *Research Methods Africa Center for Technology Studies (Acts) Press*. Nairobi Kenya.
- Muturi, H. M. (2015). Effects of Cash Conversion Cycle on Profitability of Tea Factories in Meru County, Kenya. *International Journal of Economics, Commerce and Management*, 3(8), 552-563.
- Mwaura, C. N. (2017). *The Effect Of Inventory Turnover on the Financial Performance of Medium And Large Retail Supermarkets In Kenya* (Doctoral dissertation, School of Business, University of Nairobi).
- Ngechu, M. (2014). Understanding the research process and methods: An introduction to Research Methods.
- Njiiri, V. (2015). The Relationship between Investment and Financial Performance of Insurance Companies in Kenya. *Unpublished MBA Project*.
- Nyamao, N. R., Patrick, O., Martin, L., Odondo, A. J., & Simeyo, O. (2012). Effect of working capital management practices on financial performance: A study of small scale enterprises in Kisii South District, Kenya. *African Journal of Business Management*, 6(18), 5807.
- Ongore, V. O., & Kusa, G. B. (2013). Determinants of financial performance of commercial banks in Kenya. *International Journal of Economics and Financial Issues*, 3(1), 237-252.
- Onwumere, J. U. J., Ibe, I. G., & Ugbam, O. C. (2012). The impact of working capital management on profitability of Nigerian firms: A preliminary

- investigation. *European Journal of Business and management*, 4(15), 192-201.
- Padachi, K. (2015). Trends in working capital management and its impact on firms' performance: an analysis of Mauritian small manufacturing firms. *International Review of business research papers*, 2(2), 45-58.
- Pandey, I. M. (2010). *Financial Management*, 10<sup>th</sup> Edition, Vikas Publishing House PVT Ltd New Delhi, India.
- Paul, M. N., Stephen, K. K., Marcella, R. A. & Janiffer, M. N. (2013). Management of working capital and its effect on profitability of manufacturing companies listed on Nairobi securities exchange (NSE), Kenya. *IJBFMR*, 1(1) 35-42
- Prasad, N. (2016). Privatisation results: Private sector participation in water services after 15 years. *Development Policy Review*, 24(6), 669-692.
- Raheman, M. (2010). Working Capital Management and Corporate Performance of Manufacturing Sector in Pakistan. *International Research Journal of Finance and Economics*, 47, 151-163.
- Ruichao, L. (2013). *Impact of Working Capital Management on Profitability: The Case of Canadian Firms: Unpublished Master Thesis, Saint Mary's University: Canada.*
- Sabo, M., Rabi'U, S. J., Usman, S. K., Fatima, B. I., & Tjjani, H. A., (2015). The effect of working capital management on corporate profitability: evidence from Nigerian food product firms. *Applied Finance and Accounting*, 1(2), 55-63.
- Saunders, M. N. (2011). *Research methods for business students, 5/e*. Pearson Education India.
- Schaum, M. (2011). *Financial Management. Pauline's Publications Africa*. 2<sup>nd</sup> Edition,
- Schulze, S. (2012). *Research Methodology. Department of Further Education*. Pretoria. UNISA.
- Shardeo, V. (2015). Impact of Inventory Management on the Financial Performance of the firm. *IOSR Journal of Business and Management. e-ISSN*, 2(1), 238 – 245
- Shin, H. H. & Soenen, L. (2013). Efficiency of working capital and corporate profitability. *Financial Practice and Education*, 8(2), 37-45
- Smith, M, & Jay, K. (2010). *Intermediate Accounting*, (7<sup>th</sup> ed), South- Western Publishing
- Sundgren, A. & Schneeweis, T. (2010). *Measures of financial performance*, (5<sup>th</sup> ed), Armstrong Publisher, Amsterdam: Germany.
- Teoh, S. H., Welch, I., & Wong, T. J. (2013). Earnings management and the long-run market performance of initial public offerings. *The Journal of Finance*, 53(6), 1935-1974.
- Waweru, K. M. (2013). *Determining Impairment Management Practices: A case study of SACCOs in Nakuru district*. Unpublished MBA project. Egerton University



- Williams, C. (2011). Research methods. *Journal of Business & Economics Research (JBER)*, 5(3).
- Yahaya, A. (2016). Effects of working capital management on the financial performance of the pharmaceutical firms in Nigeria. *International Journal of Economics, Commerce and Management United Kingdom*, 4(4).
- Yasin A, George P. Gaoy, & Vishal, G. (2013). Does Inventory Productivity Predict Future Stock Returns? A Retailing Industry Perspective. Vanderbilt Owen Graduate School of Management Research Paper No. 1971774 Johnson School Research Paper Series No. 3-2012
- Yasir, M., Majid, A., & Yousaf, Z. (2014). Cash conversion cycle and its impact upon firm performance: An evidence from cement industry of Pakistan. *Global Business and Management Research*, 6(2), 139.
- Zariyawati, M. A., Annuar, M. N., Taufiq, H., & Rahim, A. A. (2009). Working capital management and corporate performance: Case of Malaysia. *Journal of Modern Accounting and Auditing*, 5(11), 47 - 52.