ACCOUNTS RECEIVABLE MANAGEMENT AND THE FINANCIAL PERFORMANCE OF NZOIA WATER SERVICE COMPANY LIMITED, KENYA

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DEDICATION

I dedicate this work to my beloved wife, daughter and son for their patience during the whole course.

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ABSTRACT

Management of account receivables is a significant problem for most utility service providers, particularly those still dealing with the post-payment system when services are delivered prior to payment. This study was aimed at determining the impact of the accounts receivable on Nzoia Water Services Company's financial performance. The average collections on financial performance, accounts receivable turnover and the moderating effect on accountability and financial performance by region. They would analyze the average collection period. The study obtained secondary data dating from 2012 to 2016 from Kenya national audit office and Nzoia Water Services Company published financial statements to find out effect of average collection period and accounts receivable turnover on financial performance. The study employed explanatory research design and data was collected from secondary data and analyzed using regression and correlation analysis and found the relationship between financial performance and accounts receivable, 95% confidence interval was tested using t-student test. From the findings the mean average collection period was 309.90 days, accounts receivable turnover had a mean of 1.1980, size of the region (7.5870). The results showed that NZOWASCO, financial performance variable Return on Equity (ROE) was significantly affected with average collection period with negative correlation-0.232 and positive correlation on accounts receivable turnover ratio of 0.401 and Size of the region with positive correlation of 0.911. According to the regression equation established, taking all factors into account; Average collection period, Accounts receivable turnover and size of the region on financial performance of NZOWASCO measured by ROE was -0.505.The study recommended that the organization reduce average collection period, accounts receivable turnover in order to improve their financial performance.

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LIST OF ABBREVIATION AND ACRONYMS

AR-   Accounts receivable

ACP-   Average collection period

DCP-   Debtors collection period

DTR -   Debtors turnover ratio

ART -   Accounts receivable turnover

WSP-   Water service provider.

NZOWASCO-   Nzoia Water Services Company Limited

LVNWSB-   Lake Victoria North Water Service Board.

ROE-   Return on Equity

WASREB-   Water Services Regulatory Board.

WSTF-   Water Services Trust Fund

WSB-   Water Service Board

NSE-   Nairobi Security Exchange

OPERATIONAL DEFINITION OF TERMS

Accounts receivable   Is amount of money billed to customer and money is not yet received from customers due to consumption of water and sewerage services

Financial Performance-   Is measured in terms of profitability that is return on equity.

Average collection period-   It refers to the length of time required to convert the firms receivable into cash after being billed.

Size of accounts receivable Was determined by the amount of billing that is sales.

Credit Period-   Credit period was the duration of time which a customer was allowed to use water without being disconnected.

Credit standards-   Refers to the minimum criteria adopted by NZOWASCO for the purpose of short listing its customers for extension of credit during a period of time.

Collection policy-   Refers to the procedures/methods adopted by NZOWASCO to collect the amount of shillings from its debtors when such amount becomes due

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Accounts receivable are the money owed to the corporation because its goods are distributed on loan to consumers (Kontus, 2013). When merchandise and service have been purchased under a later date agreement to allow the customer to pay them, the customer's liabilities are reported as receivables (Kofi, 2015); the receivables are funds in reserves which are the sums owing by the company in the normal course of business as a result of the credit selling of products and services. The accounts receiveable are 25 percent of working capital in accordance with Maksimovic and Demirguc (2001) and should be managed with due attention. Accounts Credit and collection policies are included in the management of accounts received. Four parameters are the credit system: loan length, early payment rebate, and performance quality and collection procedure. Account receivables management has three primary questions: to whom credit should be extended, the credit terms and the process to which the money should be collected (Kontus, 2013).

The two essential metrics of financial performance are liquidity and profitability. Liquidity measures a company's ability to meet its blossoming commitments and to fulfill them. Return on investment is efficiency (Panwala, 2009). All this can be done by better accounts receivable performance. Efficient account accountability management ensurs a business organization's survival, liquidity, solvency and profitability (Ansah, 2011). A company performing appropriate account management would be fluid, and its short-term responsibilities could be met when they occur.

It takes four to five weeks to deliver the consumer invoices and six to eight weeks to collect the cash. Nzoia Water Services Company charges consumers on credit. The median

settlement time, Pandey (2008) says, defines how fast customers pay, and late payment constitutes a possible ground for bad debts that negatively impact the financial performance of a business. The debtors ' days ratio shows, according to WASREB (2011), how quickly debtors accumulate money. The debtor transition duration is between 200 and 250 days in WSP days (WASREB, 2011).

For any company which has had to meet its revenue maximisation goal, the accounts receivable are essential. Organizations who have successfully managed their loan funds do not need to borrow money from the outside and may support themselves.

Backman (1962) states that trade forgiveness relates to the sale of credit products and services. This requires effective management because there are future-related threats and economic value. The threats in the future is attributed to default and, because commodities sell at monetary value, the sums become collectible at future date and economic value. Supported by factories, buildings, machinery and stocks, the fifth category of property and the second class in terms of existing properties are listed after stock. With regard to management of working capital, cash and inventory are considered critical. In order to increase productivity and liquidity rates, businesses must adopt an optimal lending system. In the purposes of optimizing the handling of trade receivables, a business should take into consideration: the amount of credit dealing, the consumer transactions trend, practices and policies throughout effect of credit sales management, the recovery process and the terms and conditions under which credit is issued.

In order to remain competitive, businesses need to ensure the correct account management so as not to find or stay productive stability under severe pressure (Foulks, 2005). The receivables represent large investments in business wealth equivalent to those calculated by their net present value as capital budgeting ventures (Emery, 2004). Receivables boost

revenue because it allows consumers to assess product quality before they spend, but debtors are exposed to funds which are cost-effective incentives. Credit expansion is a decision based on a company's credit control or strategy. To facilitate sales, credit is available. Al-Mwala (2012) claimed that transactions are unacceptable without due payment and that therefore revenue and accounts receivable roles must work together to achieve the target of optimizing their revenues over a minimum period. Credit sales were signs that a firm is capable of maximizing its sales and improving its financial performance, Obida and Owolabe (2012) said. Increasing the level of receivable in a business reduces gross working capital and the expense of keeping or handling receivables, both of which lead to a reduction in the company's value. Companies that pursue an optimum growth in their accounts receivable boost their profitability as a result of increased sales and market share.

The aim of credit management is to insure that merchant debts are collected early enough before they can be collect, and a loss for the company. Gitau, Nyangweno, Mwencha, and Onchagwa (2014)

Six loans are to be recognized by credit managers during credit prolongation: personality, ability, collateral, condition and commitment, as stated by Kilonzo, Memba, and Njeru, 2016. We also say that the C six allows companies to lower their default rate while thinking about their customers. Cs can be collected from multiple sources including the company's past customer experience, prior year financial statement, or credit reporting. Credit requirements apply to reasonable credit customers ' required financial strength. The credit analyst will assess whether each credit claimant is above the credit level and thus eligible for credit based on financial statistical or non-financial information. Sales are boosted by lower credit standards, but bad debts also increase. The minimum standards before an extended credit is given to a consumer are: personality, assets, ability, circumstances, and

safety. The credit period, specifying how long the customer has to pay from the invoice, and the joint cash discount shall include credit conditions for the seller. A company's credit terms are usually very similar to that of other companies in its industry.

In seeking to collect slow-moving accounts, collection policies are measured by their hardness or dexterity. A hard policy can accelerate collections, which could also anger customers to take over elsewhere. Facing WSP is not popular due to fear that consumers would fail and eventually sell.

Gill, Bigger and Atnur (2010) assert that its main aim is to achieve the appropriate balance between components in cash flow management. The control of cash flows includes the planning and management of the flow of money into a business or out of it, i.e. cash flows within a corporation or cash balance retained at a period by a company (Samilogu, 2008). Efficient handling of accounts receivable allows a company to maximize its earnings by increasing transaction costs in the event of a liquidity crisis (Ahmet & Emin, 2012).

1.2 Statement of the Research Problem.

The debtor transition cycle for Water Service Providers is from 200 to 250 days, according to Water Services Regulatory Board (2011). For the 2011 review, the median debtor days was 220 days. The average debtor days at 188 days showed an overall increase. However, the total debtor days are still far away from the norm of 45 to 60 days agreed to by the sector (WASREB and WSP 2015). The water service firm Nzoia was ranked among the BB Firm, which had a bad debtor conversion time of 250 days, according to WASREB REPORT. This shows a long time of receivable accounts showing that these WSPs are managed poorly. The prolonged redemption time for debtors suggests the corporation is illiquid and can not cope with its duty or operating expenses when they occur.

For an organization's financial performance, accounts receivables management is crucial. Because NZOWASCO is not classified and receives few funds of the government and WSB,

it can't access NSE assets.   It indicates that funding for their activities is limited from the capital market or short-term bank loans. Its financial viability and performance relies on the sole source of income on the proper management of accounts receivable.

For a long time there has been bad financial performance in the water service sector. These are problems caused by poor management of working capital. In addition, a combination of low tariffs, poor receivables as well as inefficient charging and collections practises (Schwartz 2007) raised a problem of no financial sustainability. Consequently, the research question was "Have the low performance of the accounts receivable management been attributed? "

The District Water Officials and Municipalities had previously implemented the Water Act 2002. "Many of these water service providers are insufficiently professional or commercially oriented, which leads to poor financial performance and lack of sustainability," said the Netherlands Development Organization (2009).

The foregoing shows that the financial performance of WSP which does not have access to any funds in the capital markets plays a bigger role in accounts receivables. The study therefore sought to determine the impact of receivables management on Nzoia Water Services Company's financial performance.

1.3 Objectives of the study

1.3.1 General objective

To determine the effect of accounts receivable management on financial performance of Nzoia water service Company.

1.3.2 Specifically the study sought

i.   To examine the effect of Average Collection Period (ACP) on the financial performance of Nzoia Water Services Company.

ii. To establish the effect of accounts receivable turnover ratio on the financial performance of Nzoia water services company.

iii. To determine moderating effect of size of region on the relationship between accounts receivable and the financial performance of Nzoia Water Services Company.

1.4 Hypotheses

The following research hypotheses were formulated for testing.

i. H_{01}: There is no significant relationship between Average Collection Period and financial performance of Nzoia Water Services Company

ii. H_{02}: There is no significant relationship between Accounts Receivable Turnover ratio and Financial Performance of Nzoia Water Services Company

iii. H_{03}: There is no significant relationship between the size of region on accounts receivable and the financial performance of Nzoia Water Services Company

1.5 Justification of the study

The District Water Officers and Municipalities undertook water management before the implementation of the Water Act 2002. "Many of these water suppliers have failed to be professionally or commercially managed adequately, resulting in poor financial performance and inadequate sustainability, the Netherlands Development Organization (2009) has pointed out in its report. The low cost recovery and efficiency of the service provider led to high loss of water, low water quality, erratic water rationing, inadequate maintenance with a further degradation of asset delivery. In the 2011-2016 evaluation, the average debtor days were 220 days. With the average debtor days at 188 days, there was an overall increase. Moreover, the average debtor days are far from the accepted 45-60 day

standard. WSPs have reduced debtor days with a stronger index. This is contrary to the act to make them profit-oriented and less debtors ' average days

This prompted the researcher to find out how they manage their billings and accounts receivable between 2012-2016 financial years.

1.6 Significance of the study

The research is important to policymakers, especially NZOWASCO and the other water companies that make the decision concerning accounts receivable in the water sector. It would act for intellectuals undertaking related studies as a theoretical review and reference point. This finding will contribute to a better understanding of good practices in accounting, financial and accounts receivable management practices and techniques. The study would reveal best accounts receivable management Strategies, policies, practice and techniques for NZOWASCO and other water companies.

1.7 Scope of the study

The study was carried in Nzoia Water Services Company which is situated in Webuye as its head office and covering two counties of Bungoma and Trans Nzoia. Nzoia Water services Company had four region that is Kitale, Bungoma,Webuye and Kimilili regions. NZOWASCO is under LVNWSB. The study obtained secondary data for a period of five most recent audited years spanning from 2012-2016 by data sheet administed to KENAO and commercial department at head office and was analyzed using inferential and descriptive statistical methods to find if there was relationship between accounts receivable management and financial performance.

1.8 Limitation of the study

The major limitation of this study was that, the employees of the Nzoia water services company were not co-operative in releasing sensitive information about their company's

accounts receivable management and financial performance. However the researcher did the following to obtain data from them:

1. The researcher sought permission from the managing director

2. The researcher assured the respondent that information collected would be treated with confidentiality

3. The researcher assured respondents that information collected was for academic purposes only.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

2.2 Theoretical review

This chapter focuses on literatures relating to the Accounts receivable management of the company, and how it affects company performance. The various researchers of the relevant literatures for this study in terms of accounting and financial concepts. The literature review section has been arranged into two sections. The first section presents the theoretical review of accounts receivable management while the second section reviews the empirical evidence pertaining to accounts receivable management.

2.3 Accounts Receivable Management Definition

Accounts receivable is money owed to a company when it sells its products or services on credit and does not receive cash immediately (Pandey, 2004). Accounts receivables are obligations owed to the company by consumers resulting from sale of goods or services in ordinary course of business (Kimani, J.W, 2013). Accounts receivables are therefore debt accounts containing sums owed to the client in the regular business process as a consequence of the credit sales of goods and services.

2.4 Objectives of Accounts Receivables Management

The main goal of accounts receivables management is to increase the company's value by striking the liquidity, risk and profitability balance. Mainly because every credit transactions include the possibility of deferral compensation and failure to pay for the cost concerned, a significant portion of account accounts receivable control requires proper collection of customers (Hrishikes 2002)

Costs associated with maintaining receivables are detailed below: -

A loan is not available without any cost involved and its appropriate productive operation. These expenses cover management costs, the capital cost and costs in terms of output and sales, the cost of delinquency, the costs of failure and the cost of success (Periasamy, 2009).

Administrative Cost – The firm liberalizes its credit policy because of either maximizing billings or minimizing of billings, therefore it incurs two types of costs:

Credit Investigation and Supervision Cost

The proportion of debtors is increasing as a result of a permissive credit policy. As such, the company is required to monitor and oversee a large volume of accounts for the purposes of collecting credit information from international professional companies or through the practice of its own employees throughout the field.

Collection Cost

An organization would face certain losses in obtaining customers ' sums on the basis of loan transactions. Certain expenditures may include regular letters for follow-up, bill processing costs and discounting charges, and expenses for stern enforcement against default consumers (Periasamy, 2009)

The company must step up its collection efforts in order to collect outstanding notes, in particular for financially less sound customers. This includes additional compensation expenses incurred in the development and maintenance of staff, accounting records, discretionary assets, postal services and other related items.

Capital Cost

As account claims are expanded by assets in existing properties, companies ' capital is blocked, as the purchase and payment of goods is marked. Meanwhile, it needs to arrange a supplementary fund for raw materials workers or suppliers who, if they are due out of or from retained earnings or capital, want to pay its customers for payment. The company involves costs by raising additional capital that otherwise would be beneficial to finance loan sales elsewhere (Periasamy, 2009). The servicing of claims of the company gives rise to its financial resources being blocked due to the connection between the customer selling of water and the consumer payment date. But the real fact is that the company has to pay its compensation to workers, manufacturers of raw materials and similar companies, even during a certain period of time. The company is therefore responsible for contracts for these external responsibilities from outlets other than revenues. A company thus allows for additional capital costs in the course of expanding sales via receivables.

Production and Selling Cost

Such rises were closely related to the increase in sales. In other terms, payroll, production and sales expenses are increasing at a very high level. In this respect NZOWASO encounters two situations; in this scenario, firstly, the extension of billing within the context of existing production capability raises both contingent output and billing costs. The second is that production capacity is introduced due to the growth in sales from existing production resources. In this scenario increased costs of production and distribution will raise variable costs as well as fixed costs.

Delinquency Cost

This is because of late bill compensation or the inability by customers to pay bills during and after the start of the credit term (Kimani, 2013). This form of debt is deemed doubtful.

Default Cost

The inability of a defaulting group (customer) to pay anything in return for credit water contributes to default costs. If, given the whole initiative, the company refuses to recall, its debtors shall not pay their entire amount. Instead, for five years, the business handles liabilities such as bad debts which cannot be recaptured (Periassamy, 2009).

2.5 Determinants of Organizational Performance

Teruel and Solan. (2007) suggested managers could generate income by cutting their company's accountable days and stocks. Efficient debt management supported by reduced borrowers, low debt and a strong credit policy often improve companies ' ability to attract new customers, thus improving financial performance and thus a good credit policy to sustain maximum productivity for NZOWASCO Wanyoike (2015). Cash premiums, collateral defaults and value of lending and cash servicing are the carrying costs associated with credit award, which decreases once the volume of receivables is raised. The loss of sales as a result of non-customer compensation is the profit price that decreases when receivables rise. Companies that effectively manage debt easily determine their appropriate level of credit, which reduces the overall cost of credit.

The size of the corporation often influences the performance of the organisation. The size of the company can be measured according to a company's total assets. An organization's operations with more resources have economies of scale. It can also easily access funds due to its high bond numbers. (Omondi & Muturi 2013) argue that big businesses have a competitive advantage over small businesses because big businesses have a wide variety of resources and can also make economies of scene.

2.6 Transaction Costs Theory

Ronald Coase, the most popular payment theory predecessor, published his first paper on the business more than 6 decades ago in 1937, in line with Anoop Madhok (2002)). Coase, one of the basic principles of neoclassical economics, called the idea of frictionless marketplaces into question, arguing that' the use of price mechanism costs.' The most apparent expense of "organizing output via the process of the market is to figure out which prices are important" (Coase 1937: 390). Such transaction costs (TCs) render planning an event within the company's organization more effective. The primary purpose of Coase was to clarify why economic growth was organized in companies. The theory of Williamson (1985), which was also made more predictable by approaching the company as a management structure and by recognizing the transaction features, also contributed to and amended. Yet Coase and Williamson saw companies and markets as alternating means of coordination, despite their differences in focus, and they are characterized by coordinating relationships between authorities and the market through coordination through price mechanism (Anoop Madhok 2002)

Costs for transactions involve the arrangement, management and market surveillance of transactions including negotiating costs, contracting out, management of logistics and the monitoring of receivable accounts. The costs of transactions are declared one reason for supporting credit sales. The principle of purchases explains the mutual reduction of transaction costs and consistency of payments by payment at one time for several deliveries (Feris 1981). In addition, smaller cash balances can save money.

2.7 Price Discrimination theory

Varian states (1989) that as early as 1920, piguo, who was an economist, discovered price discrimination. He has categorized price discrimination into three classes, which are up to now embraced.

Rates vary when a company sells various units at different prices of the same item. This is true of the circumstances where certain customer groups are entitled to special fares or nonlinear prices, such as for students and elderly people, where the price per unit depends on the number of units brought in (for example, the price of a French Metro ticket purchased individually or in 10 packs (Simon, Anderson & Renault, 2008).

Price discrimination exists when a company sells two equivalent units of a product and gives two different clients or the same consumer the same homogeneous commodity at different prices (Miravete, 2005). Only if the retailer sells similar products could it be possible to charge different rates in different markets. The hypothesis was also reinforced by Schwartz which Whitcomb (1978, 1979) and was based on the idea that both business mechanisms and regulatory agreements often limit the competitiveness of a product by suppressing price competition on the sector, commercial credit not only becomes an active tool for creating secret price cuts, it can also be used to compete against products and these firms are less able to outsource.

2.7.1 Conditions for price discrimination

For price discrimination to operate effectively the following conditions should be in place

Eton College (2006) are as follows:

1. Market cost elasticity variations between markets–there is a need for a specific price elasticity of demand from each consumer group.

2. Barriers to discourage customers from moving from one manufacturer to another–the retailer must be able to avoid a system in which buyers who have bought a good or service at a lower price may re-sell it to other consumers who would otherwise have charged the higher value.

2.7.2 Types of price discrimination

According to Varian (1989), in 1922 Pigou discriminated between first, second and third degree price discrimination based on the amount of information available to the retailer about consumer habits.

The dealer pays a different price for each unit of the product in such a manner that the price charged for each item is equal to the total willingness to pay for that item.

Second degree price discrimination, or nonlinear marketing, arises as prices vary based on the number of good sold units, but not among buyers. That is, each customer faces the same price schedule, but for different amounts of the good acquired, the schedule includes different prices. The prominent examples are quantity discounts or premiums.

Third degree price discrimination means that different purchasers are charged different prices, but each purchaser pays a constant amount for each unit of the good bought. This is perhaps the most common form of price discrimination; examples are student discounts, or charging different prices on different days of the week.

In NZOWASCO Price discrimination is an act of billing the same product to different clients with different prices, even when the costs of supplying water to them are same. This practice

is effective due NZOWASCO monopolist characteristic as they exploit their leading power for discrimination**.** NZOWASCO practice this theory by classifying their customers into categories of domestic consumers, Schools and institutions, Commercial and Government of which they bill them differently for same water provision. NZOWASCO practices second degree of price discrimination by applying price schedule, but the schedule involves different prices for different quantities of litres of water billed.

2.8 Account receivables management policies

Credit policies are procedures and legislation developed to regulate credit selling rates. A company's main aim was to maximize profit, and sales revenue was raised by trade credit, resulting in increased profits. A gentle credit policy usually gives credit to customers on very liberal terms and requirements such that even those customers whose creditworthiness was not well known are given credit for longer periods. On the other side, a stringent credit policy is conservative and only gives payment to those consumers whose creditworthiness has been built and who are financially strong. There are no two credit-like organisations. Whether a company has implemented a lenient and strict credit strategy, it must insure that it receives and keeps good customers without creating an adverse impact on the cash flow (Kalunda, Nduku & Kabiru, 2012). There are two major loan categories: broad and strict credit policies.

2.8.1 Expansive credit policy

It was also called a lax credit policy and according to this rule, a company does not look at the credit cost that consumers may give them. It led to an increase sales that translate into higher profit margins, but the company faces various risks including an increase in the level of bad debts, cash flow risk as cash on sales was tight, and higher general administrative costs. NZOWASCO is applying this policy where customers are freely supplying water on

credit without evaluating their creditworthiness. Credit extension as reported by Gill, et al. (2010) should be based solely on consumer creditworthiness to reduce default and bad debt rates. Copeland, Weston and Walton. (2009) claimed that six credit Cs should be considered by credit managers in the credit expansion: character, capability, collateral, condition and contribution. We also state that six Cs allow companies to reduce their default rate by learning about their consumer skills and creditworthiness.

2.8.2 Tight credit policy/ Stringent credit policy

Also consumers whose creditworthiness is proven and economically stable can be credited with a strict credit policy. The periods of credit are shorter and lower discounts. The cost was low, but sales returns may be detrimental. A business had to devise an effective loan strategy. Three factor loans policies include the requirements for credit, loan terms and processes for collection (Kakuru, 2000)

2.9 Credit standards

The focus is on the individual who is willing to receive loans and who qualifies. The criteria used by the Company for selecting customers for credit extension include credit standards. The Company would take into account both the average collection period (ACP) and the default rate to analyze customers and set credit standards. The average period for debts collection has remained unchanged. In comparison, the default rate of overall receivables was the rate for uncollected claims. The client was able to determine from the default rate that his repayment duty was not met with. A financial manager will find 5c's for loans, namely, personality, power, position, capital and leverage, to determine the risk of default.

Character: Character means debtor's reputation for fair and honest business. This applies to a debtor's free will or willingness to pay the balance of the claimables within the specified

period, i.e. payment time frame. Consumer satisfaction is considered important in credit evaluation in action. Capacity relates to customer experience and its proven operational capability. The financial ability of a customer in particular is to borrow from other sources to fulfill his obligations to fulfill the company's contract. Factors apply to the prevailing economic and other factors which may influence the customer's ability to pay. Capital refers to a customer's financial position. Money functions as a promise of the willingness for customers to pay. However, it is important to note that, even though its capital holdings are scarce, a customer may be able to buy.

Collateral. This is security against failure to pay. The person seeking credit should offer security before credit is granted.

2.10 Collection Policy and procedures

For the effective and reliable operation of loan transactions, payment strategies had to be enforced as typically consumers default if they pay their debts, in compliance with credit conditions. The collection plan was meant to speed up slow-payment recovery and thus reduce the incidence of bad debt defaults. The total debt limit was the customer's maximum amount of credit. The amount and lifespan of the loan had to be decided after the company had taken a decision to extend the loan to the applicant. A collection policy would ensure that collection is quick and regular. Rapid collection, reducing prices, bad debts within limits and retaining collection performance, were required for rapid selling of working capital. Credit limit will alert debtors to settle their duties fast.

2.11 Credit terms

These are terms by which a company gives consumers money. Credit terms should be more attractive if they are to provide customers with an incentive without high losses in bad debt. The terms proposed would thus be compatible with the standard working conditions.

2.12 Empirical literature

Industries are geared at maximizing profit and increasing assets. Only the paper can report profit, but the liquidity of the company was important. Liquidity would show if the enterprise could fulfill its daily obligations.

2.12.1 Average Collection Period and Profitability of the Firm

Nyaga (2011) carried out an analysis on the financial performance impact of TIVET institutions on the financial performance of TEC and has noticed that there was a significant correlation between admissible management and TIVET institutions ' financial results.

The report also found that a majority (77 percent) of organizations have structured complaints processing policies.

A research by Mbula, Memba, & Njeru (2016), which explores the influence of the financial performance of government-funded risk capital enterprises in Kenya, reveals that the financial performance of government-funded risk capital enterprises in Kenya is positively linking accounts receivable with financial performance.

The study of account receivables in Nigeria by Ikeschukwu and Nwakaego (2015) showed that the accounts receivable had a positive and significant impact on profitability while the ratio of debt to debt and revenue growth were negative and non-significant in terms of

profitability in the case of buildings material / chemicals and in the case of paint companies listed in Nigeria stock exchange.

The correlation between amount of day-to-day transactions and productivity calculated by gross operating profit has been negative for Lazaridis and Tryfonidis (2006). This negative result demonstrated business productivity by increasing the loan period for its clients.

As a metric of profitability, Deloof (2003) identified a substantial negative relationship between average day accounts receivable and gross operating income. Boisjoly (2009) is demonstrating that companies were focusing on improving their accounts receivable management by increasing their accounts receivable turnover over the 15-year 1990-2004 period. Various techniques such as improving the payment processes, delivering money discount and trade guarantees, and using the factoring of receivables can be implemented (Boisjoly, 2009).

Samiloglu and Demirgunes (2008) studied the effects on the effect on the competitiveness of the Istanbul Stock Exchange coded producers for the 1998 to 2007 era of cash flow management. To order to measure the effect of working capital management, the revenue flow process, the time to receivables and stock duration was used; return on capital assets was used as a metric of productivity. Regression results indicate that the productivity of payments receivables had a significant negative correlation.

The findings of Raheman and Nasr (2007) found beneficial partnerships with accounts due as a liquidity factor to be significantly negative. In addition, the average collection period and profitability have been adversely related (Alipour, 2011).

The researchers concluded that accounts receivables have been compromised by opportunities to use loans as a form of price discrimination and internal funding, and

Mubashir (2012) carried out an analysis on determinants of responsible receivables and accounts payable management policies in Pakistan textiles. The study also found that the company's scale has influenced the volume of receivables held by a business.

A research entitled "Empirical analyzes of work capital and its impact on the profitability of listed production undertakings in Ghana" has revealed a statistical significance of the working capital cycle, which is used as the working capital management proxy, but is not linked to the profitability of companies. In addition, it was found that the account receivables collection period was negatively related to profitability (Thomas, 2013) (used as proxy for accounts receivables management).

The study in Kenya entitled "The factors influencing account management for agro-production companies in Kenya" concludes that although financial departments are responsible for account management, it is a difficult area that needs special attention as it affects sales, marketing and finance departments (Onami 20:00, 2012).

The connection between work efficiency and earnings before interest and paper industry's taxes in Indian has been analyzed by Ramchandran and Janakiraman (2009). The research found that the cycle of cash conversion and day stock correlates with earnings prior to interest and tax, while the days and days of accounts payable are related to earnings before interest and tax.

Grzegor (2008) used portfolio management theory to determine the level of accounts receivable in the company in his portfolio-management research. In a company increase in net working capital as well as cost of owning and managing accountable receivables, he found that the level of accountable receivables had been increasing.

In ksenia (2013) we discuss the management, during depression periods, of the accounts receivable of public companies classified in the regulated market in Serbia. A 108 company sample is used. The accounting policies are reviewed in the 2008-2011 crisis period.

The short-term effects are tested and the study suggests that there has been a positive but not significant relationship between the accounts receivables and 2 dependent profitability variables, total asset returns and operating profit margin. This indicates that in times of crisis the impact of receivables on company profits has changed.

Research conducted in Belgium, Greece, the United States of Africa, Spain and Turkey respectively, García-Jeruel (2007), Samiloglu and Demrigunes (2006) and Laziridis (2007) in their various research projects show that there is a negative link between receivables and profitability in business. The evidence was contradictory between Sharma and Kumar (2011) who created a successful partnership for ROA claims.

Mathuva (2010) noticed that there is a highly negative correlation between time it takes for businesses to collected cash from their customers and productivity in his work capital management studies, which show that Olufisayo (2011) has carried out sales growth, money conversion process, account receivables, and stock duration.

The impact of working capital management on the competitiveness of companies in Turkey has been measured by Samiloglu and Demirgunes (2008) during the period 1998-2007. The empirical results showed the dramatically and adversely impacting productivity, account receivables duration, stock turnover and leverage. They have also shown the statistical impact on profitability on the cash conversion cycle, the size and fixed financial assets.

The corporate liquidity factors of 915 U.S. industrial enterprises were investigated by Kim, Mauer and Sherman (1998) in panel data and different models from 1975 to 1994. We

noticed that businesses with a high book-to-book ratio had significant liquid asset levels. Therefore, business size has a negative liquidity relation. Their finding showed a positive link between liquidity and external funding costs to the extent that market and book ratio and company size are sensible intermediaries for external financing costs.

A 2013 study carried out in Nairobi Securities Exchange in Kenya on work capital management, and on the profitability of the company, the study showed a negative correlation around return on assets and the average collection period and the cash conversion cycle. The result suggests that managers can create value for their shareholders by reducing the number of accounts receivable for days to a sensible maximum for account payment periods and stocks.

García-Teruel and Martínez-Solano (2007 examined effects of working capital management on profitability of 8,872 small and medium enterprises (SMEs) in Spain for the period from 1996 to 2002.

The return on assets (ROA) was used as a measure of profitability, and the number of days accounts receivable, number of days inventories, number of days accounts payable and cash conversion cycle are used to measure working capital management. The correlation matrixes demonstrates that the return on assets had the significant negative relationship with number of day's accounts receivable.

2.12.2 The Accounts receivable turnover ratio and financial performance

Accounts receivable turnover reflects an output or operation rate, which determines how often a business will translate the receivable into money over a time frame. In other words, the accounts receivable turnover ratio measures how often a company can collect its annual average accounts receivable. One turn refers to a company's average receivables each time.

Ifurueze (2013) analyzed the effects of active credit selling management on Food and Beverage Industry's competitiveness and liquidity in Nigeria and found a significant correlation between the liquidity positions of corporations ' food and beverage industries and debtors ' turnover in Nigeria. This would translate to a better liquidity role for a good borrower turnover. The high turnover of the debtor had a positive impact on the company's ability to meet its own creditors ' obligations. That was to minimize the problem of cash flow and liquidity by a tight debtor collection policy and procedure.

Adembo (2014) investigated the effect of the receivables on profitability of the production companies included in the NSE and found that there were no significant associations between the receivable turnover of the accounts and the ROA.

A survey conducted by Ezejiofor (2015) found that the liquidity position in the manufacturing companies in Nigeria has been closely related by the debtor's turnover. This means that a favorable liquidity position would be achieved by a favorable debtor turnover.

2.12.3 The Size of a firm and financial performance

The impact of company size on earnings on companies operating in the manufacturing sector, reported in ISE between 2005 and 2011, was studied by Akbas and Karaduman (2012). The results of the study showed a positive impact on productivity on the scale of businesses.

For two thousand firms on the Istanbul Bourse for the years 2008 to 2011, Dogan (2013) analyzed the effect of volume, gender, volatility and levy on profitability. The results showed a positive impact on profitability for both size and liquidity. Although the effect on profitability was negative for age and leverage.

In Tanzania Microfinance Institutions Kipesha (2013) researched the effect of size and age on company's performance. The results showed that business size and age impacts in terms of efficiency, stability, competitiveness and resource generation of revenue on the microfinance output of Tanzania.

A research project on "Corporate profitability determinants in developing economies" was carried out by Ehi-Oshio (2013). The results showed that there is a positive relation between corporate size and profitability as well as financial levy.

For 15 companies listed on the Colombo Börse from 2008 to2012, Niresh and Velnampy (2014) investigated the impacts of corporate scale on the competitiveness of quoted manufacturers in Sri Lanka. The results showed that the group size and competitiveness of the listed companies are not interrelated.

A research on the business aspect and quality of Turkish manufacturing organizations, performed by Mahdi ghafoorifard1 (2014), analyzed the connection between company size, age and financial performance in listed companies on the Tehran Börse, and noted that the correlation between company size and financial performance persists.

Asimakopolous (2009) has done a study of firm specific and economic factors that determine corporate profitability and found positive size and profitability relationships and that large companies are highly profitable. (A Ammar, 2003) Conducted a study on Indicator Variables Model of Firm's Size-Profitability Relationship of Electrical Contractors and found negative relationship of profitability and size.

(Serrasqueiro, 2009) Did a study on Growth and profitability in Portuguese companies and found out   positive relationship of size and profitability.

2.13 Research gaps

Research in the field of account for debts management and financial performance in the water sector is obvious from the literature review. The lack of empirical research on the impact of receivables management on financial performance in the water industry have illustrated the research gap. Kilonzo Jennifer Mbula (2016) has not been all inclusive in empirical studies on the effect of financial performance accounts of companies funded by government venture capital in Kenya and Simon Kimani Ngugi (2014) on accounting governance predictors in the hotel industry. Neither of the studies in Kenya focused on the water sector. From the survey of relevant literature, it was found that there was no studies specific to Kenya on the link between accounts receivables and financial performance of Water sector. This study therefore intended to fill these gaps in literature by studying the effects of accounts receivables management on financial performance of NZOWASCO in the water sector in Kenya.

2.14 Conceptual framework

Accounts receivable management

Average Collection Period (ACP)
- Average accounts receivable
- 365 days
- Net sales

H_{01}

Accounts Receivable Turnover Ratio (ART) DTR
- Net credit sales
- Average accounts Receivable

H_{02}

Financial Performance
- Profitability,

- Size of the region
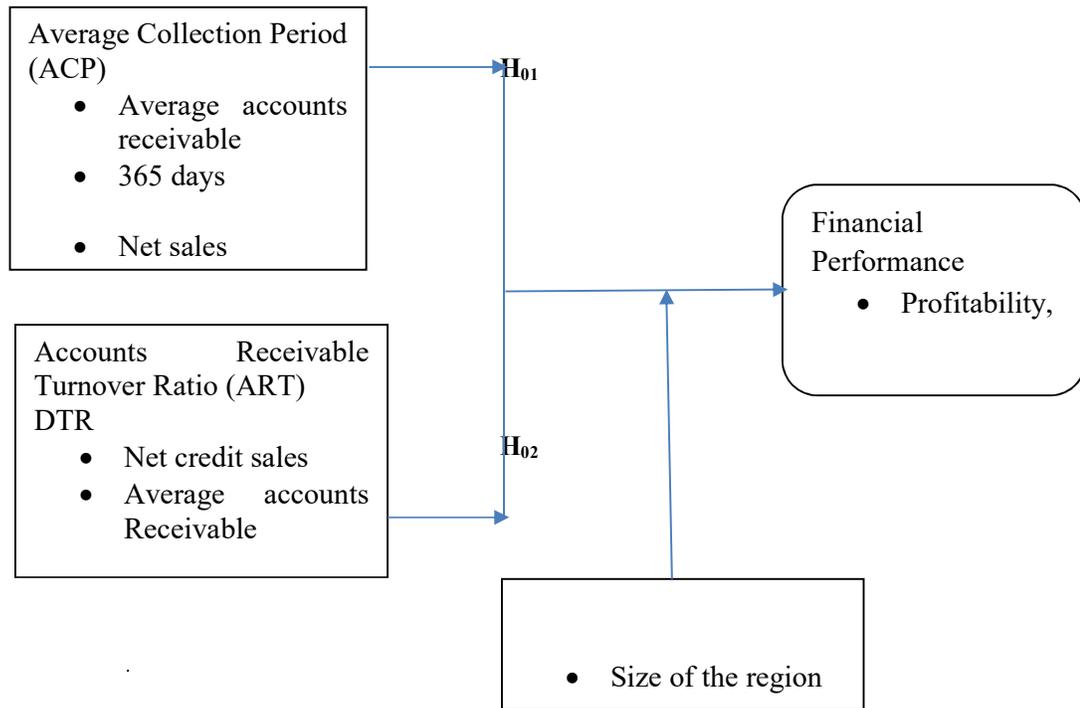
Figure2-1: Conceptual Framework Showing the relationship between the Accounts receivable and financial performance

Source Author

Conceptualization (2016)

Dependent Variable

Financial performance was the dependent variable for this study. Profitability, Return on total assets and liquidity would be used to analyze the effect of accounts receivable management on the firm financial performance.

Independent Variables

Average Collection Period (ACP) The average collection period refers to the average time between sales and collection measured in terms of number of days. In other words, it would be regarded as rough estimate of number of a debtor. It was given as:

Average Collection Period = Average accounts receivable*365 /Net credit sales**.**

Prolonged collection period owing to delays and other reasons creates difficulties in the way of sustaining business operations because of financial scarcity. Thus, slow paying customers have to be handled. As an old account causes heavy collection expenses and increase the chances of bad debt losses. Shorter average collection periods signify better credit management and liquidity of accounts receivables

Accounts Receivable Turnover ratio (ART)-Indicates the number of times the AR are turned over during a year also known as Debtors Turnover Ratio (DTR)

The receivables turnover ratio shows the relationship between sales and accounts receivables of a company.

Receivables Turnover Ratio = Net Sales/ Average Accounts Receivables

Where,

Average Accounts Receivables = Opening + Closing Receivables/ 2

 The turnover of the claims provides the liquidity data of the claims. It shows how quickly or slowly the claims are transformed into cash. In this investment field, it also serves as a primary indicator of efficiency. A higher turnover ratio is the efficiency of receivables management. Through early accumulation of receivables, the productivity of the company can be further maximised.

Size of region –The size of region was determined by the amount of billing (Natural log of billing)

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

Methodology presents the method for performing the study. The study designs, target population, sample size, sampling technique, data collection processes and data analysis methods are discussed in this section.

3.2 Research Design

The theoretical framework within which work was carried out was focused on Mugenda and Mugenda (2008). The general conception of the research includes the definition of all definitions, variables and classes, the theoretical proposals and data collection and evaluation methods. Research layout refers to the structure of data collection and analysis to achieve research goals economically through empirical evidence (Cooper & Schindler 2006). The study design would be explanatory since explanatory designs of studies are important in answering the questions of "why." These designs are meant to explain the influence of one variable on another. To order to clarify an issue, the use of explainatory research was deemed to be acceptable at all times. Whenever a problem exists, it is very important to understand it completely before it is resolved and explanatory research was recommended for solving this problem (Gill & Johnson, 2010). The preference was given to designing explanatory studies because the study sought to assess the impact of accounting receivables on NZOWASCO's financial performance.

3.3 Target Population

The target audience is according to Mugenda (2008) all people, objects or things for which the researcher can make his or her results fairly generalisable. In the four regions of

NZOWASCO Kitale, Bungoma, Webuye and Kimilili, 33 AR employees were focus groups for the report.

3.4 Sample Size

The study employed a census method where all 33 employees in charge of accounts receivable in four regions and head office of NZOWASCO were distributed with a data sheet.

Table 3-1: Sample distribution

Region	Billing section	Regional commercial manager	Finance section	Total
Kitale	4	1	4	9
Bungoma	3	1	3	7
Webuye	2	1	2	5
Kimilili	2	1	2	5
Head Office	Senior Accountant		1	1
	Receivable Accountant		2	2
	Payable Accountant		2	2
	Commercial manager			1
	Finance Manager			1
TOTAL				33

Source: (HRM NZOWASCO, 2016)

3.5 Data Collection

In addition, the report used a data sheet (Appendix v) for the financial reports from 2012 to 2016 for secondary data from the Kenya National Audit Office and Nzoia water services company.

3.6 Data validity

The reliability is the magnitude of what a check tests, according to Borg and Gall (1986). In other words, validity is the extent to which the data analysis actually represents the studied phenomena. The validity of an instrument is enhanced by expert judgment, Borg and Gall (1983) say. In that way, managers are testing the quality of the material and they are constantly checking, assessing and highlighting mistakes.

3.7 Data Reliabilty

The extent to which a research tool has produced reliable results following multiple trials using the same subjects under the same conditions is measured by reliability (Mugenda and Mugenda, 1999). Prior to actual data gathering, pretesting of the research instrument was carried out. The accuracy of the data has been achieved by using a test retest protocol involving: a choice of a sufficient number of subjects, the administration of the questionnaire to respondents, constancy of all initial conditions, the administration after two weeks to the same respondents of the survey questionnaire and comparison of the findings from the two test periods. For internal consistency checking the things in the questionnaire, the Cronbach Alpha. A reliability factor of 0.70 is appropriate for descriptive research surveys as per Fraenkel and Wallen (2000). In order to delete those objects, the instrument was revised to not produce adequate information.

3.8 Data Analysis

Data analysis (Cooper & Schindler 2003) is the entire process that starts after data collection and ends at the interplay and processing point of data. To order to obtain meaningful information, data analysis was a method of collecting data (Sounders, Lewis & Thornhill, 2009), which had to be done because raw data transmitted no value to people. Descriptive and inferential statistics were used to analyze the data. Correlation and regression analysis were the key inferential statistics used. A multiple regression model was administered and a link between the dependent variables and the independent ones was developed in this study. Multiple regression methods were used because more than one parameter existed. The model took the following format:

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \mathcal{E}$

$Y = \beta_0 + \beta_1 X_1 M_3 + \beta_2 X_2 M_3 + \mathcal{E}$ -Moderating effect

Where **Y** – Financial Performance (ROE)

X_1 – Average collection period

X_2 – Accounts receivable turnover

M_3 – Size of region on accounts receivable and financial performance

$\mathcal{E}$ – Is the error term which was assumed to be normally distributed with mean zero and constant variance

β – Parameters to be estimated.

3.9 Ethical consideration

The University School of Graduate Studies (USS), NACOSTI as well as NZOWASCO gave permission for the research. The researcher informed the participants that the study was conducted for the purposes of achievement of academic objectives. The authors ensured that academic honesty was sufficient and that accounts payable on the water field were taken more into account.

CHAPTER FOUR:
RESEARCH FINDINGS AND DISCUSSIONS

4.1 Introduction

The section describes the results of the study in greater detail. The principal purpose of this analysis was to analyze the financial performance of Nzoia Water Services Company, Kenya, as a result of account receivables management. The descriptive analysis and inferential analysis were provided in this section. The standard deviation, minimum and maximum data variables have been established in descriptive statistics average. The research used the Pearson correlation to try and determine the relationship between independent and dependent variables, regression analytics and t-test statistics for inferential analysis.

4.2 Descriptive Statistics

After its analysis with version 20.0 of the Social Sciences Statistical Package (SSP), descriptive statistics were used to present quantitative data. In terms of average collection time and accounts payable turnover, Nzoia Water Services Company financial performance was calculated. Data are listed as a mean, norm, maximum and minimum deviation. Table 4.1 contains the details.

Table 4.1: Financial Performance Statistic Results

Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
ACP	20	125	455	309.90	74.646
ART	20	.63	2.90	1.1980	.56772
SIZE	20	7.23	8.29	7.5870	.36629
PROF	20	.0044	.0664	.024172	.0216997
Valid N (listwise)	20				

Source; Research Data (2018)

The results in Table 4.1 indicate the statistical financial performance of all the variables studied in which information was provided about observation count, mean, dispersion and variability of data. According to the results, the total collection period was (309.90 days) and the peak number of days was (455 days), and the average number of days was (125 days) with a normal gap between the regions of 74.746.

The average turnover for accounts receivable was (1.1980); the peak turnover was 2.9; the minimum turnover of 0.63 was 0.56772; the mean turnover for account receivables were generally altered in each region of the country.

The region's size was average (7,5870) sales log, the maximum sales logarithm was 8.29 and the minimum sales was 7.23. The default sales logarithm deviation was 0.36629 which indicates that sales across the regions variated widely.

These researches are in agreement with Mathuva (2009) who noted the positive relationship between the average payment period and profitability, indicating that any addition to the number of days payable by 1 day led to an increase of profitability. Further, Lazaridis and Tryfonidis (2010) have shown the statistically significant connection between accounts receivable turnover and profitability, indicating that a company is capable of making profit by managing and optimizing any elements of account receivable turnover.

4.3 Inferential statistics

Objective one

To determine the effect of average collection period on financial performance of nzoia water services company

Table 4. l : Correlation between ACP and ROE

Correlations		PROF	ACP
PROF	Pearson Correlation	1	-.232
	Sig. (2-tailed)		.324
ACP	Pearson Correlation	-.232	1
	Sig. (2-tailed)	.324	
	N	20	20

In calculating the degree of linkage between the management of accounts receivable and financial performance of companies the correlation analysis was necessary. Average collection time (in days) is used to check if Nzoia Water Services Company increases its financial performance. The findings of the correlation analyzes are shown in Table 4.2. Table4.2 demonstrates the study of the comparisons between the financial performance variables of the businesses. The results reveal that average collection period with negative (r= -0.232; μ > 0.324), with a ROE showing an negative 23,20% relation with profitability, significantly affected Nzoia Water Services Company's financial performance variable (ROE). In other words, ACP leads to a 23.20% drop in ROE. Such results are consistent with the findings of Erasmus (2012) which conducted a study on the management of working capital and profitability of South African listed industrial companies. The research

found that the relationship between profitability and debt, liquidity ratios and business-receivable conversion cycles exists in reverse. The analysis also verified Mohammadi's (2007) results, showing that there is an opposite association between companies listed on the Tehran Stock Exchange between 1996 and 2005, among conversion periods of trade receivable, cash conversion cycles and profitability. However, Deloof (2003) agrees with the findings of the study that there is a negative connection between profitability and the number of days to be obtained. This is consistent with the fact that the least profitable companies are waiting longer to settle their bills. Smith and Begemann (1997) demonstrate that income and liquidity are operating in different directions. This research further supports their results. However, the study contradicts the findings of Lazaridis and Tryfonidis (2006), who found that a significant association exists among companies listed on the Athens bourse between their profitability and cash conversion cycles. Organizations report a high level of productivity by maintaining an optimal money conversion time. Nevertheless, this study found that the correlation was not relevant.

Table 4.2: Model summary of ACP and the Financial performance.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.232[a]	.054	.001	.0216848

a. Predictors: (Constant), ACP

Table 4.3 Provides the R and R2 values which represent the data correlation. The (R Squared) indicates that the coefficient of determination (R squared) was 0.054 which implies that 5.4% of the changes in ROE is explained by the ACP variable while the other 94.5%% of the variation is explained by other factors.

Table 3.4: ANOVA for ACP and Financial performance

ANOVA for ACP and Financial performance						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.000	1	.000	1.026	.324
	Residual	.008	18	.000		
	Total	.009	19			

a. Dependent Variable: ROE

b. Predictors: (Constant), ACP

The hypotheses formulated for this study are tested in this section using the t-values produced by the SPSS output shown in table 4.4. The level of significance for the study is 5% (two-tailed test). Therefore, the critical value for t is ±1.96. The decision rule for this test is to accept (or reject) the null hypothesis if the critical value is greater (or less) than the calculated t value shown in the SPSS output of table 4.4 .These hypotheses are tested in this as follows:

H_{01}: **There is no significant relationship between Average Collection Period and financial performance of NZOWASCO**

Table 4.4 Evidence for this null hypothesis (Ho1) above. Table 4.4 The results show that t for ACP is estimated to be 1.026. The critical (1.96) value is therefore lower than the ACP t value measured as shown in Table 4.4. The null hypothesis is therefore acknowledged and the productivity of NZOWASCO is assumed not to be affected substantially by ACP. This status is supported in relation to the relevant (sig) rate of ACP (0,324), as shown in Table 4.4, for this analysis (0,05).

Objective Two

To determine the effect of Accounts receivable turnover ratio on Financial performance of Nzoia Water Services Company.

Table 4.4: Correlation between ART and Financial performance (ROE)

Correlations between ART and ROE			
		PROF	ART
ROE	Pearson Correlation	1	.401
	Sig. (2-tailed)		.080
ART	Pearson Correlation	.401	1
	Sig. (2-tailed)	.080	
	N	20	20

Table 4.5 demonstrates the study of the relationship between the financial performance variables of the firms. The results show that a positive relationship of 40.10% positive to profitability was not affected significantly in the financial performance variable of Nzoia WaterServices Company (ROE) by the account receivable turnover ratio with the positive correlation of (r= 0.401; μ > 0.080). These findings coincide with the findings of Adembo (2014), which also looks at the impact of the receivable turnover on the profitability of the manufacturing companies in the NSE and shows a significant correlation between the receivable turnover and ROA.

However Ifurueze (2013) found a conflicting finding that there are significant links between Nigeria's liquidity position and debtor turnover between Nigeria's businesses of the food and beverage sector. He investigated the impact of efficient credit sales management on the profitability and liquidity of Nigerian food and beverage industries. This indicates the favorable liquidity situation of a favorable debtor turnover. The high turnover of the borrower had a positive impact on the company's ability to fulfill its own lenders ' commitments. This would mitigate the issue of cash flow and liquidity through strict debtor collection policy and procedure. Another conflicting study conducted by Ezejiofor (2015) found that a significant relationship exists among Nigerian production companies ' liquidity

position and the debtor turnover. This means that the successful turnover of a borrower will

lead to a favorable position in liquidity.

Table 4:6 Model summary for accounts receivable

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.401	.161	.114	.0204254

a. Predictors: (Constant), ART

Coefficient of Determination

A regression model was used to analyze the relationship between the predictor variables

account receivables turnover ratio, regulated by size of the field. The findings from

regression analysis shown in Table 4.6 show that the determination coefficient (R-squared)

was 0.161. This suggests that the reason for the turnover ratio explains 16.10 percent of

ROE shifts, while 83.9 percent of ROE differences explain other factors.

Table 4.7: ANOVA for ART and financial performance

ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.001	1	.001	3.445	.080
	Residual	.008	18	.000		
	Total	.009	19			

a. Dependent Variable: ROE
b. Predictors: (Constant), ART

H_{02}: **There is no significant relationship between Accounts Receivable Turnover ratio**

and Financial Performance of NZOWASCO

The findings of this above null hypothesis are again described in Table 4.7. The result indicates that t for ART is calculated at 3,445. The critical value (1,96) is therefore lower than the value t calculated for ART, as indicated in table 4.7. Those who deny the null hypothesis (Ho2) believe that ART greatly affects the productivity of NZOWASCO. This is also verified in accordance with the measured significant level (sig) for ART (0.080), as shown in Table 4.7, the significance level for this study (0.05).

Objective three

To determine the moderating effect of size on accounts receivable and financial performance of Nzoia Water Services Company.

Table 4.8: Correlation between Size and ROE

Correlations between size and ROE			
Variable		PROF	SIZE
PROF	Pearson Correlation	1	.911**
	Sig. (2-tailed)		.000
SIZE	Pearson Correlation	.911**	1
	Sig. (2-tailed)	.000	
	N	20	20

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

The results of Table 4.8 show the correspondence between size and financial performance. The findings of table 4.8 display the size and financial performance factor correlationship analysis. The results show that the financial performancing factor of the Nzoia Water Services Company Equity Return (ROE) has substantially positive effects on the size of the company with a 91.10% positive profitability ratio (r= 0.911; μ > 0.000). This means that Size contributes 91.10% increase in ROE. It means as Size increases by 91.10% the profitability of the region also increases by 91.10%.

Table 4.9: Model summary of Size and financial performance.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.911[a]	.830	.821	.0091868

a. Predictors: (Constant), SIZE

The R and R2 values representing the correlation of the sample are provided in Table 4.9. The (R squared) shows that the decision coefficient (R squared) is 0.830, which suggests that 83.00 percent of the ROE shifts were clarified by the parameter of size and the remaining 7.00 percent by other variables.

Table 4.10: ANOVA for Size and financial performance.

ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.007	1	.007	88.008	.000
	Residual	.002	18	.000		
	Total	.009	19			

a. Dependent Variable: PROF
b. Predictors: (Constant), SIZE

H$_{03}$: There is no significant relationship between the size of region on accounts receivable and the financial performance of NZOWASCO

The findings of the hypothesis test (Ho3) above are described in Table 4.10. The result shows that t for Size is calculated at 88.008. Therefore, as shown in table 4.10, the critical value (1.96) is less than the value for t for Size measured. The null hypothesis (Ho3) was therefore dismissed, which suggested that NZOWASCO is very competitive by the area's size. This status is also verified when the research importance level (0.05) is compared with the measured significant size (0.000) level as shown in Table 4.10.

The results indicate that NZOWASCO earnings (measured by ROE) are not affected by the average day selection (ACP). In NZOWASCO, the account receivables turnover (ART) and the SIZE in the region have been considerably influenced (measured by the ROE).

Table 4.11 Coefficients of determination.

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.505	.039		-12.997	.000
	ACP	6.834E-006	.000	.024	.251	.805
	ART	-.016	.004	-.424	-3.675	.002
	SIZE	.072	.005	1.216	13.437	.000

a. Dependent Variable: PROF

Table 4.11 above presents the regression coefficients, their corresponding t statistics and p values. The findings show that the average collection time and the ROE have a negative and meaningful relationship. The regression coefficient -0.00006834 and a p-value of 0.805 were used for this finding. The p value reported was lower than 0.05 for critical p. A coefficient of regression of -0.0006834 indicates that a one-unit increase in the average period of collection causes a reduction of ROE by 0.00006834.

The study findings also revealed that the moderating effect of size on ROE was positive and significant (B=0.072, P value =0.000). The p value was less than the critical p value of 0.05. A beta coefficient of 0.072 implies that a one unit increase in SIZE leads to a 0.072 units increase in ROE.

INTERPRETATION OF RESULTS

The findings of the regression coefficients for the analysis study shown in Table 4.11 and the research assumptions for Nzoia Water Services Company's financial results are described as follows:

ACP's impact on profitability: The regression coefficients have shown that the ACP relationship with NZOWASCO's profitability (measured by ROE) is negative (0.805) and insignificant (0.251). The negative relationship for the study is similar to previous empirical trials including Ramachandran & Janakiraraman (2009) which discovered a negative relationship of insignificance between profitability and ACP. The adverse relationship between ACP and NZOWASCO's profitability suggests that NZOWASCO's profitability will be negatively affected by increased debtors ' accounts for days and vice versa. However, the insignificant negative relationship between ACP and profitability (ROE) indicates that ACP does not sufficiently explain the variation in the profitability of NZOWASCO.

The impact of SIZE on profitability: The regression coefficients shown in Table 4.11 also suggest a significant (0.000) positive relationship (13.437) with productivity (measured by ROE) between the scale of the field (Scale). The rising the scale, the lower the productivity of Nzowasco and vice versa, this good relationship between Scale and ROE implies. This strong relation (measured by the ROE) between size and productivity correlates to the earlier analytical observations of Akbas and Karaduman (2012). It includes Dogan (2013); Kipesha (2013) Ehi-Oshio (2013). Nevertheless, the results of this study refute Niresh and Velnamp's conclusions. (A Ammar, 2003) who found significant negative relationship between Size and profitability of firms.

The regression equation after estimations was as shown below

$Y_{it} = -0.505 - 0.0006834\ X_1 - 0.016\ X_2 + 0.072 X_3$

The financial performance of Nzoia Water Services Company as quantified by ROE was-0.505 based on the multiple regression equation model that included all factors (average collection period, account receivable turnover and region size). According to the average collection period shown in Table 4.11, Nzoia Water Services company's financial performance had a negative and insignificant effect, as demonstrated by beta values. All the percentages ($p<0.05$) are irrelevant, with the median collectibles time period ($\beta= -0.0006834$, $p < 0.05$), with the exception of the area scale of the accounts receivable turnover ($\beta= -0.016$, $p <.05$)

Standardized beta coefficients indicate each variable's contribution to the template. A higher value means that the shift in a single unit of the parameter indicator also has a major effect on the factor criterion. In showing the impact of each predictor variable, t and sig values are important. When t is high and p is low, the result is that the parameter indicator has a greater effect on the criteria factor. The region's p-value was 0.000 at 5% meaning and 95% trust. Accounts receivable turnover had a p-value of 0.002. Median payment time was 0,805.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The chapter provides the summary of findings, gives the conclusions and recommendations as per the objectives of the study.

5.2 Summary of findings

5.2.1 Summary

Chapter One offered an outline of Nzoia's success in Kenya, addressed the declaration of problems and the study's purpose. The main problem is that Kenya's water service suppliers in Nzoia have not done well because the regions are unable to fulfill short-term commitments, which eventually threaten the water supply system in the areas of their operation. The regions were more often than not able to provide their consumers with water because their suppliers could not make prompt payments. There were known high levels of debt and non liquidity in the regions. All of this is due to poor handling of receivables. The purpose of the study was to examine the effect on Nzoia water service's financial performance in Kenya of accounts receivables management.

Chapter 2 reviewed the theories informing the study for a short period of time. Accounts in receipt were found to be of utility in informing the theoretical background for the study. Transaction cost theory and price discrimination theory The statistical data was also analyzed to assess the void in study. In past studies on account management globally and locally, literature review showed that there are methodological, contextual and conceptual research gaps and that the present study was thus conducted to address these research gaps. The analysis procedure was shown in Chapter Three. An explanatory design has been selected, and secondary data have been used for analysis. A model was formulated which

linked the average time period, the turnover ratio of accounts receivable and the size of ROE. Mean and standard deviation descriptive statistics have been used. The key inferential methods used for analysis were inferential statistics, namely correlation and regression.

Chapter four presented the assessment of correlations that revealed the negative and significant association between the average collecting time (R=-0.232, p value=0.805). This implies that a decrease in ROE is associated with an increase in account receivable days. Certain results found that the account receivable rate was negatively and strongly related to ROE (R= 0.401, p= 0.080). This implies that an increase of the debt ratio is linked to an increase in ROE.

5.2.2 Summary of Findings

The study found that receivables have a minor impact on the organization's financial (profitability) results. The aim of this study was to reach the agreement that the default rates are reduced if the company limits its loan sales. Proper credit standards developed by the company, eliminate the possibility of credit overloads that properly conform with the credit policies. From the results, the average time of the collections averaged 309.90 (mean (1.1980) and the area size (7.5870) were accounts for receivable turnover. The results revealed that NZOWASCO has a significant impact on the area with positive correlation with its financial performance factor return on investment (ROE). In line with the regression equation founded, the financial performance of NZ OWASCO was affected by 50.5per cent and other determinants affected financial performance by the same value as those measured by REO –0.505 considering all factors, region size, accounts receivable turnover and the average collection period.

The study's first goal was to evaluate the impact on financial performance of Nzoia water services company of the average collection period. The study shows that ACP is not an important ROE determinant. Results revealed ACP's negative and insignificant association

with a profitability ratio of 23,20% (r=-0,232; μl > 0,324). Fixed-effect model correlation testing and panel data analysis have shown no association between ACP and ROE. Companies with less ACP are expected to achieve cash conversion efficiency and thus be more profitable.

The second aim of the survey was to determine the effect on profitability of the company Nzoia Water Services on accounts payable turnover and the results showed that ART did not correlate significantly with ROE. ART has been linked to ROE (r=0.401 μl > 0.05) negatively and insignificantly, which suggests 40.10 p.cent positive productivity relationship That implies a significant effect on ROE of the ART increase / discrease. This therefore shows that ART has no significant profitability impact on Nzoia Water Services Company.

5.3 Conclusions

The goal of this analysis was to assess the effect of Nzoia Water Services company's accounts receivable and financial performance. For data analysis over the period 2012 to 2016 descriptive and inferential statistics have been used. The total collection time and the retention of accounts receivable have been shown to be objectively unfavorable and to have a negative equity score suggesting that the general financial quality of Nzoia Water Services Company increases if the average collection span is shortened.

The study showed that the return on Equity of Nzoia water services business has negligible effects on the accounts receivables. Accounts receivables are thus used to promote sales and development as the source of funding. Companies must develop clear account receivables strategy to monitor their inventory selling rates, as they are known as the second level of current resources.

The two variables have no major profitability impact, the accounts receivable are not very important for the profitability of Nzoia Water Services Company, and additional studies may examine the effects of liquidity and other operating capital accounts payables. The two variables have a profitable effect. However, the negative effect of ACP on the ROE indicates that the ACP rise will contribute to an insignificant decrease in NZOWASCO's ROE.. Ultimately, the negative connection between ACP and equity return between 2012 and 2016 is negligible. In addition, the positive impact of ART on NZOWASCO's ROE is negligible. Although account receivables management is expected to affect organization liquidity and earning capacity, the present study concludes that no significant profitability impact has been observed from the management of receivables.

Size is a key financial quality indicator. Larger companies have better profitability while, in this respect, smaller companies can not compete with larger companies. Chi (2004) explained the dynamic and argued that both the quality and investor interests of the company were compromised greatly. Greater companies have better opportunities for financial institutions to obtain credit. You can obtain loans at cheaper rates because you have better credit value and lower bankruptcy chances. G Gedajlovic & Shapiro (1998) also verified the same thing. They confirmed the positive relationship between the company's size and profitability. Another research (Yi & Tzu, 2005) on the other side found various outcomes. Your study showed that the company's scale has no quality effect.

5.3 Recommendations

1. The study recommended that Nzoia Water services Company should reduce its average collection period and accounts receivable turnover in order to improve their financial performance. In order to improve their financial performance the following was recommended there is need to reduce the average collection period currently present.

2. From the results of the study, it was recommended that the management of NZ0WASCO should put in place a very vibrant credit policy so as to help avoid poor account receivables.

3. The monitoring and collections team should also be empowered and well equipped to enable them carry out their responsibility of recovering the debts for the company.

4. Management of NZOWASCO should also be given targets to meet when it comes to account receivables in particular and employees should be awarded or sanctioned appropriately when they fail to achieve their targets.

5. NZOWASCO should also introduce the prepaid system in their operations to reduce the number of account receivables they usually incur from their customers.

5.4 Recommendations for Further Studies

This study recommends that further studies should be done on the effects of accounts receivable management and financial performance in water and other sectors of economy focusing on cash conversion period and other accounting variables not studied.

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APPENDIX I: INTRODUCTION LETTER

TO MANAGING DIRECTOR NZOIA WATER SERVICES COMPANY

MICHAEL WAFULA WASIKE MBA/G/13/14

I Michael Wasike a student of school of Business and Economics department Masinde Muliro University am undertaking a research on Accounts receivable management on financial performance in NZOWASCO. The study is purely for academics to be awarded a Master of Business Administration Finance Option and not for any other reason. I seek your permission to collect data from your staff. Please assist me to get the necessary support to reach to mentioned employees in all your company.

Thank you.

APPENDIX II DOCUMENT ANALYSIS TOOL

The financial performance for the year 2012- 2016?

Region	Financial performance (ROE)					
	Profitability	2012	2013	2014	2015	2016
Kitale		0.0326501	0.0605693	0.0654609	0.066372	0.065007
Bungoma		0.0108834	0.0201898	0.0218203	0.022124	0.021669
Webuye		0.00653	0.0121139	0.0130922	0.0132744	0.0130014
Kimilili		0.0043533	0.0080759	0.0087281	0.0088496	0.0086676

Financial performance for the years 2012-2016

REGION	FINANCIAL PERFORMANCE(PROFITABILITY) SALES					
	PROFITABILITY	2012	2013	2014	2015	2016
KITALE		124,693,879	67028813	151,208,248	196,118,960	174499953
BUNGOMA		30520334	31336385	40106659	54,729,062	64273532
WEBUYE		18456720	19456728	20322280	21,451,793	25245897
KIMILILI		16916207	17779202	18929332	20,771,395	21515191

Average collection period for the years 2012-2016

REGION	AVERAGE COLLECTION PERIOD (DAYS)					
	DAYS	2012	2013	2014	2015	2016
KITALE		125	455	195	215	302
BUNGOMA		320	345	375	315	305
WEBUYE		365	377	400	350	344
KIMILILI		296	280	288	276	270

Accounts receivable turnover ratio for the years 2012-2016

REGION	ACCOUNTS RECEIVABLE TURNOVER RATIO					
	RATIO	2012	2013	2014	2015	2016
KITALE		2.9	0.8	1.87	1.70	1.21
BUNGOMA		1.2	1.13	1.03	1.5	2.07
WEBUYE		1.0	0.88	0.63	0.71	0.91
KIMILILI		1.23	0.63	0.76	0.86	0.94

APPENDIX III: RESEARCH AUTHORIZATION

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone:+254-20-2213471,
2241349,3310571,2219420
Fax:+254-20-318245,318249
Email: dg@nacosti.go.ke
Website : www.nacosti.go.ke
When replying please quote

NACOSTI, Upper Kabete
Off Waiyaki Way
P.O. Box 30623-00100
NAIROBI-KENYA

Ref No. **NACOSTI/P/19/33406/26849**

Date: **29th January, 2019**

Michael Wafula Wasike
Masinde Muliro University of Science and Technology
P. O Box 190-50100
KAKAMEGA

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on *"Accounts receivable management and the financial performance of Nzoia Water Service Company Limited, Kenya"* I am pleased to inform you that you have been authorized to undertake research in **Bungoma County** for the period ending **29th January, 2020.**

You are advised to report to **the County Commissioner and the County Director of Education, Bungoma County** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

GODFREY P. KALERWA MSc., MBA, MKIM
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Bungoma County.

The County Director of Education
Bungoma County.

National Commission for Science, Technology and Innovation is ISO9001: 2008 Certified

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APPENDIX IV: RESEARCH PERMIT

THIS IS TO CERTIFY THAT:
MR. MICHAEL WAFULA WASIKE
of MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY, 1010-50205
WEBUYE,has been permitted to conduct
research in *Bungoma* *County*

on the topic: *ACCOUNTS RECEIVABLE*
MANAGEMENT AND THE FINANCIAL
PERFORMANCE OF NZOIA WATER
SERVICE COMPANY LIMITED, KENYA

for the period ending:
29th January,2020

Permit No : NACOSTI/P/19/33406/26849
Date Of Issue : 29th January,2019
Fee Recieved :Ksh 1000

....
Applicant's
Signature

....
Director General
National Commission for Science,
Technology & Innovation

THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013

The Grant of Research Licenses is guided by the Science,
Technology and Innovation (Research Licensing) Regulations, 2014.

CONDITIONS

1. The License is valid for the proposed research, location and specified period.
2. The License and any rights thereunder are non-transferable.
3. The Licensee shall inform the County Governor before commencement of the research.
4. Excavation, filming and collection of specimens are subject to further necessary clearance from relevant Government Agencies.
5. The License does not give authority to transfer research materials.
6. NACOSTI may monitor and evaluate the licensed research project.
7. The Licensee shall submit one hard copy and upload a soft copy of their final report within one year of completion of the research.
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CONDITIONS: see back page

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