ADDIS ABABA UNIVERSTY

COLLEGE OF BUSINES AND ECONOMICS

DEPARTEMENT OF ACCOUNTING AND FINANCE

ASSESSMENT OF RECEIVABLE MANAGEMENT PRACTICE IN PUBLIC ENTERPRISS: THE CASE OF ADDIS ABABA WATER AND SEWERAGE AUTHORITY

A THESIS SUBMITTED TO THE DEPARTMENT OF ACCOUNTING AND FINANCE ADDIS ABABA UNIVERSITY, IN THEPARTIAL FULFILLMENT OF THE REQUIRMENT FOR DEGREE OF MASTERS OF SCIENCE IN ACCOUNTING AND FINANCE

BY: ALEM MULUGETA

ADVISOR: ALEM HAGOS (PhD)

March, 2020

ADDIS ABABA, ETHIOPIA

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APPROVAL

This research paper titled "**Assessment of receivable management practice: The Case of Addis Ababa water and sewerage authority"** has been submitted to Addis Ababa University College of Business and Economics, Department of Accounting and Finance with my guidance and approval as a university advisor.

Signed by the Examining Committee:

Advisor--- Signature ---------------Date ---------

Internal Examiner-- Signature--------------- Date --------

External Examiner--- Signature ---------------Date---------

Department Head or Graduate Program Coordinator

Declaration

I, the under signed, declare that this thesis is my original work and has not been presented for a degree in any other University, and that all sources of materials used for the thesis have been duly acknowledged.

Declared by:

Name: AlemMulugeta

Signature: -----------------------------------

Date: ---

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LIST OF ABBREVIATIONS AND ACRONYMS

AAWSA	Addis Ababa Water and Sewerage Authority
ACP	Average Collection Period
DSO	Day Sales Outstanding
GAAP	Generally Accepted Accounting Principle
KPLC	Kenya Power and Lighting Company
WAPD	Weighted Average Payment Days

ABSTRACT

Utilities Companies should have effective receivable management system for continuing profitability and give a sustainable service to customers. The main objective of this study was to assess account receivable management practice in Addis Ababa Water and Sewerage Authority. In order to meet the objectives of the study, primary data collected through questionnaires were analyzed using descriptive statistics.The study analyzed secondary data from the organization billing and information department for a period of five years from 2015 to 2019. Primary data were gathered through the use of questionnaires, Self-administered questionnaires have been distributed to60 employees working in bill processing and administrating department and out of this, and analysis was made based on the data collected from 56 respondents. The questionnaires were analyzed using descriptive statisticswith the support of SPSS for analysis and summarization purposes. findings on the base of the objectives indicates the inability to effectively practice credit management policies , and Government's slow pace in meeting its obligations and the disconnections policy is not strictly adhered as some of the factors which have led to the debt growth at AAWSA.Based on the findings it was recommended that AAWSA should be reviewed the receivable management process to collect overdue account receivable.

Key words: *termination of service, staff knowledge, customer class, political interferences, technology*

INTRODUCTION

CHAPTERONE

1.1 Background of the Company

Menilik move the capital city from ankober to entoto particularly his preference of the site to AddisAlem.Because the abundance of fuel wood and water resource availability particular the prevalence of hot springs around Filowha.

Previously, the government as well as the people of Ethiopia they were used River, water ponds and well but gradually the population of the city increased. So, Menilik strongly argue with his officials and try to import some material from abroad to solve the shortage of water, finally it was successful.

For the first time the lines carrying water stretch down to the residence of Minilik palace in 1893 E.C. Then the pipes were laid to distribute water for different points including residence of the patriarch and the community nearby.

Ethiopia water supply system development can be categorized into **three Era**

The first one is pre-fascist invasion period. In that Era RasTeferi considering the shortage of water the capital had forced previously. Many water pipes imported as possible while on his tour to Europe. It was interesting to note that local technicians carried out the laying work of the pipes.

The France Ethiopia Rail- way company had also agreed the water supply of the city by constructing lines to draw water from wochecha spring up to the station and to the settlement such as KeranioMedhanialemChurch. Lidettaand the residential quarters including Sengatera.

The ministry of works becomes responsible for the construct delivery and maintenance of the water supply system until the invasion of the country by Fascist Italy.

Secondly the Italian invention Era, the Italians built a reserve of 1500m^3capacities at the site close to RasDestaDametew Residence to store water topped dram from the springs.

Thirdly, postwar water supply development started after the end of Fascist occupation. Imperial Haile Selassie launched reconstruction and rehabilitation program in very sphere of development activities. Consequently the Addis Ababa Municipality was recognized in 1942 E.C. Water supply service section was in corporate within the structure of municipality. Thenextracting water from ponds springs and wells fusing them in to the system using Motor Pumps. They were productive yielding an aggregated volume of 100m^3 of water daily.

The Gefersa Dam is turning point and the begging of a big leap forward in history of water supply system of Addis Ababa. In 1952E.C the dam was inaugurated by imperial majesty Haile Selassie and that time the society started payment for water service. In1971E.Clegedadi dam started its function to full fill the demand of water in Addis Ababa. Until know legedadi dam is the main water source of Addis Ababa. Currently, Addis Ababa water and Sewerage Authority (AAWSA) have around 556,115 customers and distributed575000m3 per day.

(AAWSA) is self- financing authority and the source of its revenue is being the sale of water, sewerage service, line connection fee, other miscellaneous income, loan, foreign grant and capital subsidy from the government of Addis Ababa City Administration.

The authority is used to charge its clients at the bases of their consumption at different tariff rate. The authority makes agreement with customer for the giving service, the usage of water, and the payment of their bill. AAWSA give it service through eight branches.

1.2 Background of the Study

Public utility companies that are established as autonomous body for providing service. The companies give these services on credit.Receivable management has received a great deal of attention in recent times, especially in public utility companies. This is partly because the utility companies are perceived to be inefficient in the provision of their services, and one major cause is ineffective management of their accounts receivableErnest et al(2016). Ineffective management of accounts receivable prevents the company from having the essential working capital needed for their routine operations and also to ensure maximization of needed profits. On the other handefficient receivable management, with its crucial impact on cash flow, can make the difference between survival and insolvency in the private sector, or between cost effective and wasteful administration in the public sector.Effective management of accounts receivable therefore presents important opportunities for organizations to achieve strategic advantage through improvements in customer service, cash management and reductions in costs(Vikiru k, 2008).

According to Robert (2001), accounts receivables are amounts owed to the businessenterprise, usually by its customers. Managing accounts receivables involves fivesteps: determining to whom to extend credit, establishing a payment period, monitoring collections, evaluating the liquidity of receivables accelerating, andeventually cash receipts from accounts receivables holders. A critical part ofmanaging accountsreceivables is determining to whom credit should be extendedand to whom it should not. Many companies increase sales by being generous withtheir credit policy, but they may end up extending credit to risky customers who do not pay. If the credit policy is too tight, sales will be lost.

Accounts Receivable collectionpractices are the procedures and tools used by a company to collect overdue ordelinquentaccounts receivables (Megginson& Scott, 2008).There are various policiesthat an organization should put in place to ensure that effectively manage receivables; one of these policies is a collection policy which is neededbecause all customers do not pay the firms bills in time(Nduta, 2011).Somecustomers are slow payers while some are non -payers. The collection effort should, therefore aim at accelerating collections from slow payers and reducing bad debtlosses(Kariuki, 2010).

Effective billing and collection systems in utilities companies are a critical componentfor ensuring the viability of a service provider. Improving billingand collection activities has an immediate impact on therevenue streams of a service provider that can, in turn, help theservice provider in improving services. However, while effective billing and collection practices depend on many internal factors (including customer databases, the extent of metered andunmetered service provision, tariff and billing structures,delivery of bills, and facilities for customer payments) the institutional arrangements under which service providers operate and provide services determine whether such practices will remain sustainable in the long term. Efficient billing and collection practices can set incentives for the provider to effectively charge and collect bills while also fulfilling a commercial orientation to services.(Sansom, Kevin, Richard andFranceys2003).

Most Public utilities have not sought to test whether the credit and collection activities in which they engage are effective .As a result, many credit and collection activities are either unnecessary or unproductive in accomplishing their purposes. Many more activities do not contribute to the overall least-cost provision of utility service. A major reason for these failures is the reliance upon supposition and "conventional wisdom" that is not grounded in an empirical reality (Roger, 1994).

Utility companies are unable to collect outstanding bills in a timely manner due to inefficiencies in the billing and collection system, or political interference prevent the utilities from forcing its customers, particularly government or government owned entities to pay their bills (Ernest et al., 2016).

Water utilities in developing countries are often capital constrained, and hence, their service provisions as well as required investment in infrastructure largely depend on customers' patronization as reflected in their timely payment of water bills. If customers default on their payments and/or are unable to pay their bills in a timely manner, the water utilities companies are more likely to face serious cash flow problems in maintaining sustainable water services (Mohammed and Zakiya, 2017)

Addis Ababa Water and Sewerage Authority is one of the utility companies established for providing pure water and disposal of sludge. The sale of water gives on credit, the meter reading done in every month but the bill preparation as well as collection of bills is done every two months(Berhanu, 2009).

Hence, the purpose of this study is to assess the receivable managementPracticeof Addis Ababa Water and Sewerage Authority from different perspectives in light of the practices of modernreceivable management in public utility companies.

1.3 Statement of the problem

When organizations sell goods or render service, it may receive cash immediately or sells on credit, which is to be collected in cash later. The purpose of selling on credit is to increase sales and therefore the earning of the firm.AsRober Cole(1998) noted one of the most important reasons for high failure rate of business is the inability to implement good credit collection policy. If the organization needs to bring positive cash flows from credit operations, it must be organized effective collection department.

Oswald D(1990) says there are two major problems areas are created from selling on credit. First selling on credit involves making decisions concerning the credit classes of customers to whom credit will extend and the terms to be offered. Second major problem area is derived from the necessity administering customer accounts and making collection.

Public utilities are expected to be available, accessible and sustainable but require high capital expenditure. In developing countries public funding is the common source of finance for establishing and even operating public utilities such as water and electricity (Ernest et al., 2016).

Managers of public water utilities in Africa have difficulties in efficiently collecting water bills from their customers (Chitonge, 2013). Billing and revenue collection are the two factors that drive cash flows of water utilities because billing and revenue collection involve collection costs, billing costs, and bad debts. He also stated that managers of water utilities could experience negative effects on financial viability when there is under-performance in billing and revenue collection.

According to Ernest (2016) most public utility companies have not sought to test whether the credit and collection activities they pursue are effective. Also, most studies have concentrated on the management of working capital as a whole and always focused on a manufacturing company.

According to Francis and Charles (2018) most of water and sanitation companies are faced with weak management structures, processes and systems and poor systems of revenue collection.

Like other water and sanitation company Addis Ababa water and sewerage authority is one of the entities, which carried out its activity on credit. Hence credit sales will be effective if it is systematic well planned and properly managed.

Researchers have focused on the assessment of receivable management practices of utilities in different African countries other than Ethiopia (Ernest, 2016, Kofi mintah, 2015, Nicholas, 2017, Onono, 2006, Vikiru K, 2008 and Francis Munene, 2018).

Therefore, this paper focusesontoassess ofreceivable management practice in Addis Ababa Water and Sewerage Authority.

1.4 Research Questions

1. Howthe institution implement policiesand procedures of receivablemanagement
2. What type ofappropriatetools that implementedin the organizationto manage receivables?
3. What is the cause of uncollectable account receivable?
4. How the internal and external factors makeinfluence on collecting receivable?

1.5 Objective of the Study

The objective of the study has its own general and specific objectives.

1.5.1 General objective

The general objective of the study was to evaluate the effectiveness of receivable management practice in Addis Ababa Water and Sewerage Authority.

1.5.2 Specific objectives

The major objectives of the study are:

1. To explore the trend of the accounts receivable from 2015 – 2019
2. To determine the level of company's staff knowledge in accounts receivable management.
3. To determine the effectiveness of termination of service as a debt management tool.
4. To determine the level of contribution of various customer classifications toaccountsreceivable.
5. To discuss the effectiveness of existing receivable management practices.

1.6 Significance of the study

This research may facilitate the work of management by pointing out areas of weaknesses in the existing credit practices that inhibit effective control of accounts receivable. In addition interested researchers also would be able to have a base for further study; this paper provided substantial highlights before engaged in the study.

1.7 Scope of the Study

This study focuses on assessing receivable management practices from 2015-2019 in AAWSA. Questioners were distributed to key revenue management staff of threebranches out of eight branches. Those are Addis Ketema, Megenagna and Gurd shoal. The study covered receivable policies, procedures, and credit operations of the utility, assessed the organization use effective tools. In addition, the study is concerned with customer classification and identifying the organization use best practices of credit management.

1.8 Limitations of the study

This study was face to the Limitation of the availability of reliable information in the areas of Literatures from independent parties in Ethiopian context whether internal or external literatures. To the best of the knowledge of this researches based on examination of papers on the same or similar subject matters, no paper so far had identified and addressed the practice of account receivable management in Addis Ababa water and sewerage authority by different institutions as standards as a benchmark. This limited the possibilities of looking in to no other papers done on the same subject matter.

1.9 Organization of the study

This paper is organized into five chapters. The first chapter is an introduction which includes background of the study, problem statement, objective of the study, research questions, significance of the study and scope and limitation of the study. The second chapter is review of related literatures which consists theoretical background and important findings from different literatures. The third chapter involves methodologies applied in the study. Chapter four presents the result and discussion of the study. Finally, the last chapter gives conclusion and recommendations of the study.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter reviews the available literature in the area of accounts receivables. The Chapter starts from theoretical review of previous research conducted on management of accounts receivable and then reviews empirical research done in the area, afterwhich the next section then illustrates the conceptual framework of the study and to highlight the gaps in existing studies.

2.2 Theoretical literature

2.2.1 Sources and Nature of Account Receivable

Firms are often sold products and services to customers in return for promises to pay in the future. These transactions are called credit sales or sales on account. The promises from buyers are called account receivable to sellers.

Accounts receivable is an interim debt arising through credit sales and recorded as accounts receivable by the seller and accounts payable by the buyer (Omondi, 2014).Account receivables usually are relatively large in amount and should appear as separate item in the current assets section of the balance sheet at their net realizable value. Receivable are increased by new credit sales and are decreased by customer payment. Accompany needs to know the amount currently due from each customer to send bill.

2.2.2 Categorization of Receivables

Trade receivables are from normal trading and are classified as notes receivable and accounts receivable. Accounts receivable and notes receivable are the two most common receivables.

Notes receivable are claims for which formal instruments of credit are issued as proof of the debt. A note receivable normally extends for time periods of 60–90 days or longer and requires the debtor to pay interest. Accounts receivable is amounts owed by customers on account. They result from the sale of goods and services. Companies generally expect to collect these receivables within 30 to 60 days. Accounts receivable are the most significant type of claim held by a company. The company making the sale does not receive any written orders or promises to pay from the purchaser. The creditor merely enters the amount due in its books. Accounts receivable constitute a major portion of the assets of utility companies and tend to vary directly with sales (Colton ,1995) accounts receivable may be sold to finance companies or pledged as collateral to obtain loans from commercial banks or finance companies.

2.2.3Management of Account Receivable

A finance manager has to match the increased revenue with additional costs. The credit should be liberalized only to the level where incremental revenue matches the additional costs. The quality of trade accounts should be decided so that credit facilities are extended only up to that level. The optimum level of investment in receivables should be where there is a tradeoff between the costs and profitability. On the other hand, a tight credit policy increases the liquidity. Receivables management begins with the firm's credit policy, but a monitoring system is also important to keep tabs on whether the terms of credit are being observed.

Corrective action is often needed, and the only way to know whether the situation is getting out of hand is with a good receivables control system (Ehrhardt and Brigham, 2011). There are three key areas of accounts receivable management. The first one is before a company grants credit to a customer it should ensure, as far as possible, that the customer is worthy of that credit and that bad debts will not result. Checks should continue to be carried out on existing customers as a company would like to have early warning of any problems which may be developing. This is especially true for key customers of the company. Secondly once the decision has been taken to grant credit, then suitable credit terms must be set and the receivables that arise must be monitored efficiently if the costs of giving credit are to be kept under control. The Third one is a key area of the management of accounts receivable is the final collection of cash from customers. Any company must have a rigorous system to ensure that all customerspayina timely fashion as, without this, the level of receivables and the cost of financing these receivables will inevitably rise, as will the risk and cost of bad debts.

2.2.4 Objectives of Accounts Receivables Management

The primary objective of accounts receivable management is to maximize the value of the enterprise by striking a balance between liquidity, risk and profitability. A significant part of accounts receivables management involves the proper selection of customers, because every credit sale involves the risk of delayed payment or non-payment of the value involved (Hrishikes, 2007).

The main purpose of maintaining receivables is not, sales maximization nor is it for minimization of risks involved by way of bad debts. Had the main objective been growth of sales, the concern would have opened credit sales to all sorts of customers. Contrary to this, if the aim had been minimization of risk of bad debts, the firm would not have made any credit sale at all. That means a firm should indulge in sales expansion by way of receivables only until the extent to which the risk remain within an acceptably manageable limit. The basic target of management of receivables is to enhance the overall return on the optimum level of investment made by the firm in accounts receivables. This optimum investment is determined by comparing the benefits to be derived from a particular level of investment with the cost of maintaining that level (Periasamy, 2009).Thus the objectives of management of accounts receivable may be viewed as to; attain not maximum but optimum volume of sales, exercise control over the cost of credit and maintain it on a minimum possible level and to keep investment at an optimum level in the form of accounts receivables.

2.2.5 Benefits of reducing accounts receivable

The benefits of effectively managing the account receivable asset according to Ernest et al.,(2016) include increased cash flow, higher credit sales and margins, reduced bad debt loss, lower administrative cost in the entire revenue cycle, decreased deductions and concessions losses, and enhanced customer service, improved staff morale. An organization that is able to achieve excellence accounts receivable management will certainly have enough working capital, is credit worthy, be more profitable, have better motivated staff and will enjoy the benefit of low staff turnover.

2.2.6 Cost of holding accounts receivable

Accounts receivable add cost to a company's operation if they remain unpaid. The true value of accounts receivable is therefore necessary for efficient management and ability to reduce this cost is not only critical for liquidity but a challenge to the company. McCormick(2002) has a study of the carrying costs of accounts receivable and what follows is taken of his work. He identified five carrying costs as time, administrative; financing, bad debt and morale costs.

2.2.6.1 Time Cost

In a credit transaction, the seller will have to wait to receive payment. If the seller had received cash immediately, the cash could have been invested elsewhere by the seller for profit; the seller will lose investment earnings, and may be required to borrow funds to pay its own bills. Time cost is the present value of money to be paid at a specified point in the future i.e. how much money would have to be invested today, at a given interest rate, to generate a principal-plus-interest amount equal to what will be paid or collected in the future (Ernest et al.,2016). As the receivable ages beyond the normal cycle, the collection process becomes more cost intensive.

2.2.6.2 Administrative costs

The seller will incur additional administrative costs after accepting the debtors promise to pay. Administrative cost which includes follow-up letters, telephone calls, transport expenses, additional staff expenses and additional record keeping are costs directly related to the age of receivable beyond the normal collection cycle cost. Mccrea(2004).

2.2.6.3 Legal consideration

The credit transaction is affected by laws that have been passed by state and federal legislatures to protect both the debtors and creditors. These laws must be understood to avoid the penalties and extra costs that are involved in litigation. Training is required to ensure that workers will conduct credit transactions properly. As these laws continue to change, someone must accept the responsibility to monitor these changes in order to adjust the credit policies and procedures as neededDaniel G (1990).

2.2.6.4 Finance charge

The creditor may or may not require a finance charge as part of the credit transaction a finance charge is additional amount that must be paid over and above the value received by the debtor or borrower. The finance charge will help cover the costs mentioned above: losses due to nonpayment, operation expenses, lost investment earnings, inflation, and legal expenses, if finances charges are not specifically identified, they must nevertheless be incorporated in prices of a firms goods and services, DanielG(1990)

2.2.7Credit Collection Techniques

Effective credit collection techniques are one of the necessities for Utilities Company. Knowing how to encourage customers to pay their outstanding bill on time can increase the cash flow of the company. According to DanielG (1990) there is a numbers of collection techniques are employed. Under normal circumstances customers are expected to pay in cash as per the agreement made. The basic techniques are:

Telephone Calls: If the customer passes the due date, a telephone call may be made to the customer to request immediate payment of debt. Personal visits: If the telephone call made is not resulted positive response vesting his business and discussing the issue with the customer can be a very effective collection procedure.

Letters: If the efforts made so far is unsuccessful and not resulted positive response a polite letter is to be served reminding the customer of its obligation followed by warning letters for the action to be taken in future and its consequence.

Using Collection Agencies: Firms can turn uncollectible accounts over to a collection agency or an attorney for collection. The fees for this service are typically quite high;the firm may receive less than fifty percent on accounts collected in this way.

Legal Action: legal action is the most stringent step in the collection process. It is analternative to the use of a collection agency not only is direct legal action expensive,butis may force the debtor in to bankruptcy, thereby reducing the possibility of future business without guarantying the ultimate receipt of overdue amount.

2.2.8 Credit Policy

The term credit policy is used to include all the company's systems and include credit selection, credit standards, credit terms and collection policy.According to Brown (2003), the first step for any company is to define its credit policy. This must include customer acceptance criteria, credit vetting, credit limits and payment terms.

The board must define the balance for the business between the potential profitability of the customer, the desire to retain the customer whilst maximizing their use of products and services and the exposure to potential bad debt. From this stems the customer acceptance policy with the boundaries of what the company does, and does not want to do business. The balance between the need for market share and growth on the one hand, and profitability on the other, will determine the appropriate element of risk in taking on new customers. Once this has been established, the customer acceptance policy needs to be updated as circumstances change (Wallis, 2002)

2.2.8.1 Elements of An effective Credit Management Policy

According to Rowe (2004) some of the key elements of an effective credit management policy are Check a new customer's creditworthiness before drawing up a contract; set strict limits and stick to them; prepare unambiguous written contracts and/or terms and conditions of trading; involve the sales force in negotiating the payment terms and ensuring that these are understood and agreed at the start; make sure that you know and comply with the procedures used by your customers' buying and accounts department; initiate and maintain close contact with your customers, particularly with the person responsible for paying your account try to create a rapport so that you are on top of the list to be paid even when money is tight; make regular credit checks on customers; ensure that all dispatch notes and invoices are accurate and delivered to the right person at the right time; put a stop on supplies to customers who are not paying.

2.2.8.2 The Importance of a Written Credit and Collection Policy and Procedure Manual

The main role of credit policy is to provide a framework for consistent credit decisioncompatible with the goals of the credit function. The credit policy requires regularreview and clear documentation. According to Pike and Cheng (2001) a survey conducted, to establish the causes of late payments in the U.K., found that virtually all (94%) firms have a credit policy manual, although only 54% regard it as 'fully documented'. As might be expected, this is considerably higher than the 35% of small/medium-sized firms with a written credit policy found by Wilson (1995)survey.

Among the benefits of a written policy are that the policy will reduce bias and subjectivity in credit decisions being made, the process becomes more predictable (something sales and senior management will appreciate); and since everyone understands the ground rules, exceptions will be made based on business considerations (Dennis, 2004).

2.2.8.3 Choosing the Right Type of Credit Policy

Among the alternative types of credit policy that a firm can choose from are strict analysis of risk and strict collections, strict analysis of risk with liberal collections, liberal analysis of risk and vigorous collection effort, or liberal analysis of risk and liberal collections states (Wallis,2002) .

2.2.8.3.1 Strict Analysis of Risk and Strict Collections

Under this policy, only high-credit rated accounts are accepted, and very little variation from terms is allowed. The analysis of risk is thorough; collection efforts require a greater effort, and selling may be restricted. But the increased effort may pay sizeable dividends in the form of improved accounts receivable turnover and minimal bad-debt losses, leading to increased cash-flow and profitability.

2.2.8.3.2 Strict Analysis of Risk with Liberal Collections

This policy is somewhat more liberal in its collection procedures. It concentrates on the selection of good credit risks but does not aggressively press payment. The assumption is that the good risks will, on average, pay their bills within terms; any additional time is less expensive to carry than the cost of following up accounts that are only a few days past due. If your cost of capital is high, this type of policy may not be wise, especially when customer orders involve sizeable amounts. A more prudent course would be to follow collections closely.

2.2.8.3.3 Liberal Analysis of Risk and Vigorous Collection Effort

The credit analysis is liberal, so nearly all customers that apply will be accepted. But once the sale is made, close control is kept over collections. This type of policy would normally be followed in organizations selling high mark-up, low unit-price goods or services. The cost of credit analysis is relatively low in this type of credit policy, but collection costs are usually quite high.

2.2.8.3.4Liberal Analysis of Risk and Liberal Collections

Very few lines of business would find this policy profitable to operate. One advantage might be that it tends to lower credit costs. Yet the costs related to carrying receivables for long periods coupled with a resulting increase in bad-debt expense more than offsets the savings.

The principal motivation for a company adopting this policy is to obtain maximum sales volume .For this policy to be effective, profit margins must be set high enough to counter the slow turn in receivables resulting bad-debt losses.

2.2.9Managing Risks

According to Greengard(2003) for most companies, winning the battle for market share and new customers is essential to success. Advertising and marketing executives conjure up elaborate campaigns to entice corporate decision makers to part with their cash. Sales people mine, leads and court potential buyers with relentless zeal. Yet many of these efforts ignore a basic business truth: Not all customers are created equal.

Managing credit risks remains an essential and challenging corporate function. Unfortunately, it's one that is often no more than an afterthought. Many organizations give a great deal more attention to retaining customers and snaring new accounts than they do tracking who is paying, who is lagging behind and who might default. But as the current economic malaise drags on and bankruptcy rates climb, effective credit management becomes an increasingly critical factor in achieving success.

2.2.9.1 Credit Risk Categories

According to Pickford (2001) Credit risk is the potential for financial loss resulting from the failure of a borrower or counter party to honor its financial or contractual obligation.

Credit risk may be classified as firm specific credit risk (the risk of default of the borrowing firm associated with the specific types of projected risk taken by that firm) or systematic credit risk (the risk of default associated with general economy wide or macro-economic conditions affecting all borrowers). An overall credit management review will therefore include an evaluation of the credit risk management policies and practices of a company.

2.2.9.2 Customer Risk Assessment

Credit risk management policies, to limit or reduce credit risk and asset classification. A company's lending function should ensure that credit is extended on a sound and collectible basis and funds are invested profitably for the benefits of shareholders and protection of the depositors. To mitigate these exposures, organizations are expected to have clearly defined policies of the institutions credit risk philosophy and parameters within which credit risk is to be controlled. However, effective customer risk assessment may be hampered by information asymmetry; borrowers may not provide all the pertinent information about their financial abilities and history(Ross,2002).

For most firms with credit policies, cash deposits to safeguard against non-payment and making prepayments are some of the common measures adopted to minimize default. Besides analyzing the customers past payment history to know whether he is likely to pay, lenders can also get assistance from credit rating agencies. Such agencies report the experience that other firms have had with your customer(Brealey and Myers, 1988).

2.2.9.3 Controlling Risk in Accounts Receivable Management

One of the best ways to avoid long accounts receivable time-lines is by doing due diligence on your customers up front. By combining early due diligence with close attention to aging receivables and using strategies like keeping backup like credit card numbers on file ,small-business owners can get a handle on their account receivables and keep their bottom lines healthy, even when customers are dealing with their own economic challenges (McCrea, 2004).

A critical aspect in the granting of trade credit is the control of risk of bad debt losses. Financial writers have generally measured this risk by the expected value of the probability distribution of these losses.

Dun and Bradstreet Inc. suggest that a firm should make a credit sale to a customer only if the operating profit on sales exceeds the expected bad debt losses. According to this study carried out by Onono(2006) the results indicate that the prediction of bad debts is best if a firm's customers are small and there is a wide distribution of sales among them. The prediction will however not be accurate if the default risks are closely correlated, for example, when sales are concentrated in a few large customers.

2.2.10Credit Limits

Companies should establish and develop scorecards from which credit limits are setfor all new customers. Even on an unsophisticated billing and credit managementsystem it should be possible to assign basic categories of follow up activity such asgood average or poor. Technology that is more sophisticated will allow setting ofindividual credit limits and setting of individual credit limits and contacting customerswhen they reach it. What is more, experience has shown that this is not necessarily the sales and marketing disaster they fear because many genuine residential customers aregrateful for advice of what they are spending and even for suggesting that they be placed on a more advantageous/appropriate tariff(Beranek and Scherr1991).

A credit limit is the maximum credit a lender will provide a borrower at one time. A survey focusing on credit limits by Besley and Osteryoung's(1985) found that: (I) a majority of firms use credit limits (ii) the primary rationale is to control exposure risks, and (iii) Subjective judgment is the predominant limit -setting method.

Credit limits represents firms' responses to problems in developing and monitoring selling relationships. Studying credit limits shows how firms perceive their credit policy problems and how they attempt to resolve them.

2.2.10.1 Credit limits and Risks Control

Review of finance literature identified three other potential explanations for credit in terms of risk or uncertainty. These are not necessarily mutually exclusive. (I) Credit limits hedge uncertainty with respect to the likelihood of default or delinquency. (ii) Since default of a major customer can increase the probability of the seller's default in a domino effect, credit limits reduce that risk by limiting receivables from such customers (iii) Credit limits are really a manifestation of agency problems in monitoring the performance of credit managers, and not actually "risk control" at all.

The three of these rationales lead to optimal values for credit limits based on shareholder wealth maximization; procedures to determine these optimal limits are given in the respective references.In the fourth rationale, credit limits results from managers' conflicting objective to grant credit and to limit bad debt. The resulting credit limits will depend on the relative strengths of the two incentives within a firm.

2.2.10.2Credit limits and credit investigation expenses

A major task of credit management is to control credit investigation expenses. Since such costs are likely to increase with the amount of information gathered, the optimal quantity of information collected will depend upon amount owed, profit margin, information costs, and default and /or delinquency probabilities. Credit limits can be set at the maximum credit grantable upon prior investigation without triggering additional investigation costs(Besley and Osteryoung's, 1985).

According Beranek and Scherr(1991)there is strong support for the idea that a major function of credit limits is to control credit investigation expenses. Most credit managers report that violation of an existing credit limit triggers additional investigation expenditure. Several aspects of credit limit policy vary significantly with sales per customer, and these variations agree with what would be expected if limits were used as investigations controls. This is "risk control" in the sense that a credit investigation produces information regarding a buyer's ability to pay.

2.2.11 Service Disconnection

One of the most effective and powerful tool for collection of delinquent water accounts is disconnection of supply. It, however, can be an unpleasant experience for both the customer and the utility company. While the customer is denied of the service the utility company is also denied revenue. Disconnection involves the interruption of service to a defaulting customer. It is no gainsaying that there are some customers who are unwilling to exercise good faith in attempting to pay for service rendered. Hence, termination is a reasonable practice when all other collections methods have been attempted in good faith and have failed. Disconnection policy according to Ernest (2016) "demands that where a customer fails to pay a bill within a stipulated credit period, the customer is disconnected. Furthermore, the service is removed and the account retired.

Three month after disconnection legal action is instituted against the defaulting customer to recover the arrears Ernest (2016) observed that, this policy has not been rigidly adhered to and rigorously enforced. Colton (1995) argued that the reliance placed on the disconnection of service as a collection mechanism is seriously misplaced. A study by Ernest (2016) concludedthat, there is little relationship between the use of service disconnections and the success of a utility in collecting bills.

2.2.12 Determinants of Organizational Performance

Teruel and Solano (2005) suggested that managers can create value by reducing their firm's days of accounts receivable. Efficient receivables management augmented by a shortened creditor's collection period, low levels of bad debts and a sound credit policy often improves the businesses' ability to attract new customers and accordingly increase financial performance.

Costs of cash discounts, losses of bad debts and costs of managing credit and credit collections constitute the carrying costs associated with granting credit which increases when the amount of receivables granted is increased. Lost sales resulting from not granting credit to customers constitute the opportunity cost which decreases when the amount of receivables is increased. Firms that are efficient in receivables management usually determine their optimal credit level which minimizes the total costs of granting credit.

2.2.13 Accounts receivable management performance ratios

Ratio analysis involves measuring the proportional relationship between two or more financial statements items. Performance ratios sometimes called activity or efficiency ratios measure how effectively a company uses its assets in daily operations. Larson(1999) out that performance ratio is a measure usually of how much revenue is or a certain level of assets. Observed that since accounts receivable analysis encompasses many factors, which sometimes appear to conflict with each other the performance obtained using only one ratio may be deceptive.

Massey(2003) supported a pre-defined formula and weighting system involving three major accounts receivable performance indicator namely Days Sales Outstanding, Percentage of

Accounts Receivable greater than 90 days, and percentage of charges written off as bad debt. The following discussions will be confined to the five major accounts receivable indicators mentioned by various writers including (Larson, 1999) and (Libby, 2002). The five major account receivable key performance indicators are: the accounts receivable to total revenue ratio, accounts receivable turnover ratio, days' sales outstanding percentage of accounts receivable greater than 90 days and percentage of sales written off as bad debt. These measures are evaluated by comparing them against those of other companies, industry averages or prior performance of the company.

2.2.13.1 Accounts Receivable to Total Revenue Ratio

The average accounts receivable is used to avoid distortions. It is interpreted by converting it to this ratio compares the monetary value of outstanding credit sales to total amount of sales.

A percentage and represents the percentage of sales or revenue that is outstanding. If the percent increases greatly from one period to another it is unfavorable to the company. A business with a liberal credit policy strict credit terms would have a lower percentage of uncollected revenue than would a business.

2.2.13.2 Accounts Receivable Turnover Ratio

This is the ratio of the number of times that accounts receivable amount is collected throughout the year. The ratio is calculated by dividing total credit by accounts receivable.

2.2.13.3 The Days' Sales Outstanding (DSO)

This indicator is variously called Days' Receivable: Days' Sales Uncollected, or Accounts Receivable Days', Average Collection Period (ACP) etc. The DSO is used to appraise accounts receivable.

It can also be evaluated by comparing with the terms on which the utility company sells its services and is a measure of the number of days it takes to collect a credit account or turn it into cash. DSO is calculated by dividing accounts receivable by average daily sales or revenue to find the number of day's sales that are tied up in receivables. A sudden increase in this ratio is a signal for the company to step up its efforts. Also, the higher the number, the longer it takes to collect one day of revenue.

Therefore, if the trend in DSO is up, but the credit policy has not been changed, this would be strong evidence that steps should be taken to expedite the collection of accounts receivable.

2.2.13.4 Percentage of Sales Written off as Bad Debt

This percentage is calculated by dividing the total amount written off as bad debt by the total sales revenue for the period usually a year.

2.2.13.5 Percentage of Accounts Receivable greater than 90 days

Accounts receivable are classified by how long they are past their due dates. The percentage is calculated by summing up the aged accounts receivable balances over 90 days and dividing the result by the total accounts receivable balances. It gives a measure of the percentage of the accounts receivable which are greater than 90 days. The older the accounts receivable the more difficult it is to collect such receivables, resulting in larger potential write-offs.

2.2.14 Measuring of bad debts

Despite careful credit investigations, a few credit customers will not pay their bills. If an account receivable is uncollectible, the business has incurred a bad debt expense. Firms that extend credit know that there will be a certain amount of bad debt losses on credit sales. In fact, an extremely low rate of bad losses is probably not good because it may indicate too tight a credit policy.

To measure bad debt expense, the bad debt allowance method is used. The allowance method recognizes that bad debt expenses must be recorded in the year in which the sales that cause those losses were made rather than in the year that customer is unable to pay. Therefore, the allowance method is based on estimates of the probable amount of bad debt losses from uncollectible accounts.

The objective in the estimation of doubtful accounts expense is to prevent an over statement of assets and revenue in the accounting period in which sales are made. In the ledger, the estimate of doubtful accounts is carried as a credit balance in valuation account titled Allowance for doubtful accounts or allowance for uncollectible accounts to measure their net realizable value the allowance account is deducted from account receivable in the balance sheet.

The doubtful accounts expense may be classified several ways in the income statement. Logically, doubtful accounts expense should be classified as an offset against gross sales, because it represents revenue that will not be collected. In practiced, doubtful accounts expense usually appears among of operating expenses. Under the assumption that credit losses are a normal expense of operations.

The estimate is made in each accounting period based on either the total sales for the period or an aging of account receivable(Daniel, 1990).

2.2.15 Estimate of Doubtful Accounts Expense based on sales

The average percentage of credit sales not collected in past accounting periods is a logical basis for estimating the portion of current credit sales that will prove uncollectible (Ernest et al., 2016).

Then Bad debt expense= credit sales* average expected loss rate

2.2.16 Aging Account Receivable

The amount estimated to be uncollectable under the aging method is the balance that should be in the allowance for Doubtful accounts at the end of the period. The difference between the actual balance in the account and the estimated balance is the bad debt expense for the period

The aging method focuses on a balance sheet valuation (account receivable), the percent of credit sales method focuses on an income statement valuation (bad debt expense).

Some accountants prefer the percent of credit sales method because they believe that it is more consistent with the matching principle (i.e., bad debt expense is estimated directly from the sales revenue of the period).Both methods are acceptable under GAAP and are widely used in practice (Ernest et al., 2016).

2.2.17 Writing off a bad Debt

According to Robert Cole (1998) when a specific customer's account receivable is determined to be uncollectible, the amount that should be removed from the account receivable account with an offsetting reduction of the allowance account.

Generally, credit has become an inescapable part of our everyday life; its use can be both good and bad depending on the reason for its need and the ability of the borrower to repay in timely manner. Consumer generally benefit from using credit because they are able to use future income to pay for needed goods and services.

Thus they can raise their current standard of living based on their ability to earn or obtain funds in the future. Business also uses credit to expand their market and find customers. If they provide credit purchase options for their customers, more people will be able to buy. Many customers lack the funds to pay cash or prefer to use credit to purchase so they can pay later. A business soon realizes that many competitors offer credit plan a business will need to accept credit use if it wants to survive.

On the other hand credit can be improperly used and cause many problems for businesses, consumer and the community all parties must be careful to ensure that credit being used for productive purposes as well as being extended with appropriate care consumer can use credit unwisely and experience disastrous outcomes. By over using credit, some consumers find that they eventually cannot repay the borrowed funds or make their regular payments for merchandise or service. Credit is very tempting to the unwary consumer and the misuse of credit can result in bankruptcy and lost property.

Also business must be careful when using extending credit. If too many customers use credit to purchase goods and services and do not pay as agreed, many dollars of profit will be required to make up the losses. One of the most important reasons for a high failure rate of business is the inability to implement good credit collection policies.

If the organizations need to bring positive cash flows from credit operations, it must be organized effective collection department. Also the costs of extending and collecting credit accounts must be controlled to make sure that important profits are not eroded.

2.2.18 Technology

The proper use of technology is essential to achieving the effectiveness and the cost efficiency required of receivables management. There are three major deficiencies with receivables management technology that can seriously affect receivables management. Lack of data integrity. If invoices, payments, and other transactions are not posting and deleting properly, or if balances change in the absence of a legitimate transaction, this is a serious problem. It paralyzes the collection effort, which depends on knowing how much a customer owes and for which transactions. Inaccurate aging forces a collector to examine each invoice to determine its aging status. This is time consuming and decreases productivity.Slow navigation among system screens and/or slow system response time. Typically, receivables staff members must consult multiple screens to gather required information and to perform operationJohn.G (2005).

Receivables management technology utilization starts with the realization that technology is an important part, but only a part, of excellence in receivables management. Process, staff skills and motivation, senior management support, billing quality, supervision, metrics, and incentives are also important elements. The functionality of receivables management technology tools should include complete interface capabilities with general ledger, order entry, and billing, accurate aging of invoices by due date, truly automated collection letters with message and suppression

capability and the ability to exclude dispute items, ability to assign reason codes to credit memos, adjustments, and write-offs, ability to easily generate a suite of standard reports to include aging, days sales outstanding (DSO), weighted average payment days (WAPD), and cash collected versus targetJohn.G(2005).

2.3 Empirical Studies

(Kofi Mintah,2015) have tried to analyze risk and challenge of debt management practice in Ghana water company. The study usedboth primary data and secondary data were used. Ratio analysis was main data analytical procedure. The study carried out by comparing the trend analysis of account receivable the past four years.The information indicated that the percentage of account receivable reduced in 2011 from 2010 and to increases 2013 and reduced 2014.Thestudy analyzes account receivables to be fluctuatingin the study periodand the account receivable to current asset ratio indicated the existence of poor management of account receivables. The study conclude that The weakness of the law, ineffective and inefficient management of accounts receivables and poor investment in the collection of account receivable were some of the factors identified as the causes of poor account receivables.

(Ernest et al.,2016) tried to analyze the receivable management of Electric Company of Ghana and to provide some comments to improve their services. The study area was Ashanti West region that has eight districts. The study covered the past five year the company Account receivable management information. The information indicates that the percentage accounts receivable to sale has not been decreasing; an average days' sales outstanding was 158 days over the study period and unrealistic provision for bad debt of about 5%.The study's conclude that the company is not very effective in its accounts receivable management .

(Vikiru, 2008) studied credit management practices in Kenya power and lighting company. The study set out to address the application of the credit management procedures in KPLC by reviewing various variables such as the existing credit standards, credit terms and collection policy and assess their adequacy and effectiveness in militating against growth in account receivables. The study found that the variables are positively correlated with the level of receivables.

(Nicholas, 2017) studied strategies for Maximizing Revenue Collection inPublic Water utility company located in Malawi, the study, explored credible business strategies that senior managers of the public water utility companies use to address inefficiencies in collecting water fee revenues. Innovative strategies, customer relations management, disconnection of water supply from customers with overdue bills, and effective metering and billing were the four themes that morphed from the study. The study found that those teams could affect the efficiencies of collecting water fee revenues.

(Onono, 2006) studied credit management practices ofKenya Telecom. The study take place on the population involving the heads of credit units in the seventeen credit units regions of telecom spread across the country. The study to draw a comparison with the corporate credit policy and best practices in credit management; to evaluate the level of bad debts within the different regions; and to establish the relationship between credit management practices and level of bad debts .The researcher found that the inability to effectively practice credit management policies, lack of proper vetting procedures and Government's slow pace in meeting its obligations as some of the factors which have led to the debt.

(Francisand Charles, 2018) studiedaccount receivable management and financial performance of water and sanitation company inKenya. The study investigate the effects of inventory turnover period, average payment period, cash conversion period and average collection period on financial performance of Water and Sanitation Company. 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 also improves.

A study conducted by (GetuNegusie, 2017), to assess the receivable management practice in shipping and logistics service enterprise in Ethiopia. The result of this study evidences that Ethiopian Shipping & Logistics Service Enterprise has no means to secure the collection of its credit services. There is a gap between the significant value of the credit services &receivable management practices.

(Kimani, 2013), the study aimed at investigating the principles and practices adopted by manufacturing firms in Kenya for effective management of accounts receivables. The results from the study revealed several factors that affected the management of accounts receivable such as lack of a formal credit policy, delayed or non-review of the credit policy manual, inconsistency on credit risk analysis procedures and haphazard variation of credit terms.

CHAPTER THREE

RESEARCH METHODOLOGY AND DESIGN

3.1 Research Methodology

The methodology of research is a conceptual field work on which the whole/conduct of research was based. Research was the systematic and scientific method of finding solutions to a problem and a planned and systematic process of collecting, presenting, analyzing and interpreting data for purpose of arriving at dependable solution to human problem. The methodology for users on the various method and technique employed by the research in the course of collecting and analyzing data with the view of obtaining solutions to the problems.

The research methodology includes the collection of data both from primary and secondary sources. The sources include questionnaire and the organization billing system. The collected quantitative and qualitative data analyzed using simple descriptive statistics like percentages and graphs. The interpretation and discussion would make together. Finally, based on the outcome of the analysis, there had been a summary, conclusion and recommendation.

3.2 Research Design

According to (Simon, 2014) a research design is a general plan or strategy for conducting a research study to examine specific testable research questions of interest. The choice of the research strategy is guided by the research question(s) and objective(s), the extent of existing knowledge, the amount of time and resources available as well as the philosophical underpinning (Sounders, 2003).

The study applied descriptive type of research. A descriptive research focuses on the research design and is concerned with addressing the particular characteristics of a specific population of subjects, either at a fixed point in time or at varying times for comparative purposes. As such they do not share the emphasis in analytic designs upon control but they do share a concern to secure a representative sample of the relevant population. Then this study describes and critically assesses the practice of receivable management in AAWSA.

3.3 Target Population

The target group of this study was employees who are directly involved in credit processing and administrating. This means Department heads, Meter reading and Bill Processing leader; Accountants, Account clerks, Data base administrators, Law officerMeter reader leader, Bill custodian and technician are included in the target group.

3.4 Sample and Sampling Technique

A sample is a set of individuals selected from a population and is usually intended to represent the population in a research study (Simon, 2014). Therefore the goal of a research is to examine a sample and then generalize the results to the population. In this study the number of target population is small. Due to this, all (N=60 (100 %).) has been considered as sample size of this study.Three branches of AAWSA are involved in the study. Three branches were selected out of eight branches purposively, because it has all the various categories of customers - industrial, commercial, urban and rural residential customers and especially governments and government related institutions.

In addition to that its vicinity and easy access to the area, it created conducive environment to easily collect data in short period of time. Patton (2002) argues that the sample size depends on what one wants to know, the purpose of the inquiry, what is at stake, what will be useful, what will have credibility and what can be done with available time and resources. The sample size was sub-divided among three branches for the key revenue staff for the study that is: Addis ketema branch 20, Megenagna branch 20 andGured shola branch 20.

Table 3.1 Selection of branch staff per job title

Job title	Addisketemabranch	Megenagnabranch	Gured shoal branch	Total
Department heads	1	1	1	3
Meter reading and Bill Processing leader	2	2	2	6
Accountant	3	3	3	9
Account clerk	3	3	3	9
Data Base Administrator	3	3	3	9
Law officer	1	1	1	3
Meter reader leader	4	4	4	12
Bill custodian	1	1	1	3
Technician	2	2	2	6
Total	20	20	20	60

3.5 Procedure of Data Collection

The data has been obtained from both primary and secondary sources. The secondary data were obtained from the organization Billing Information System (BIS). The primary data was acquired from questionnaires have been developed for employees involved in credit processing and administrating department.

3.6 Instruments of Data Collection

3.6.1. Primary Data Collection

Primary data collected from credit processing and administrating department through questionnaire. The study applied a well-designed Five point Liker scale questionnaire to gather primary information. The questionnaire were developed from the model found from internet ‘’the most frequently asked questions and answers’’.

3.6.2. Secondary Data Sources

Account receivable balance in all categories of customers at the end of the year and water sales figures were obtained from the organization billing information system from 2015-2019.

3.7 Data processing and analysis

3.7.1 Data processing

In the data processing procedures data clean-up was made to detect anomalies, errors and omissions on in responses and checking that the questions were answered. Tabulation and line charts were used to summarize the raw data and displayed. Most of the data were summarized and presented in tables and Figures, by the help of the SPSS version 25.

3.7.2 Data analysis

The key wordsof the questionnairetermination of service, staff knowledge about receivables, customer classification, political interferences and technology have been analyzed using descriptive statistics.Descriptive analyses of the data and their interpretations. The descriptive statistics used are the means and standard deviations. The main purpose of using this statistical parameter is to interpret the average response rate of respondents for each item. The respondents were to give their independent opinion on the practice of receivable management practice. The range was „Strongly agree - (5)‟ to „strongly disagree - (1)‟. According to Kajuju (2012), the scores of strongly agree /agree have been taken to present a variable which had a mean score of 3.5 to 5 on the continuous Likert scale; (3.5≤ S.E <5). The scores of „neutral‟ have been taken to represent a variable with a mean score of 2.5 to 3.4 on the continuous Likert scale; (2.5≤ M.E<3.4).The score of disagree/strongly disagree have been taken to represent a variable which had a mean score of 0 to 2.5 on the continuous Likert scale; (0≤ L.E<2.5). A standard deviation of >0.8 implies a significant difference on the impact of the variable among respondents.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1. Introduction

This chapter is concerned with the presentation, analysis, and interpretation of the data gathered via primary sources and secondary sources collected from the organization, manuals and data bases.

4.2Response Rate

A total of 60 questionnaires were distributed and the response rate was indicated in the table below.

Table 4.1: Response Rate

Statement	Response rate	
	No	Percent
Sample size	60	100
Collected	56	93.3
Remain uncollected	4	6.7

Source: Primary data, 2019

From the above table, out of 60 distributed questionnaires 56 (93.3%) were collected while 4(6.7%) of the questionnaires remained uncollected. Therefore, analysis was made based on the responses obtained from 56 questionnaires.

4.3Background information

This research was enclosed the main demographic characteristics such as branch of a respondent, educational levels, Professional qualification, experience in the organization and period working with account receivable.

Table 4.2: Background information

Statement		Frequency	Percentage
Working branch	Addis ketma	19	33.9%
	Megenaga	19	33.9%
	Guredshola	18	32.1%
Educational level	Diploma	42	75%
	Degree	14	25%
Professional qualification	Accounting	44	78.6%
	Any other	12	21.4%
Period Working in the organization	1-5years	6	10.7%
	6-10years	26	46.4%
	Above10years	24	42.9%
Period Working with account receivable management	1-5years	16	28.6%
	6-10years	20	35.7%
	Above10years	20	35.7%

Source: Primary data, 2019

There were three branches involved in the study and all are responded. The summary statistics are in Table4.2 above.

Regarding educational level of the respondents, the above table portrays that, the majority 75% of the respondents were diploma holders and the remaining 25% were degree holder. This may indicate that most of the respondents have not a good educational level.

In terms of professional qualifications 78.6% have accounting qualification, while 21.4% have no straight professional qualification. This show the respondents have qualification of accounting helps to give accurate responses.

From the table above, (46.4%) of the respondents had experiences of 6-10 years, 42.9% had an experience of above10 years and the remaining 10.7% of the respondents had experience of 1-5 years in AAWSA. This implies that the respondents have worked long enough in the organization and have a good knowledge about the issues that the researcher was looking for.

The respondents were asked to indicate the period they have been working with accounts receivables. Results in Table 4.2 above, (35.7%) of the respondents have an experience of above 10years in managing receivables the same thing 35.7% had an experience of 6-10 years and the remaining 28.6% of the respondents had experience 1-5 years in receivables. This suggested that the respondents had worked long enough in the accounts receivables hence they give accurate responses.

4.4 Credit Management Practices

4.4.1. Policy on Account Receivable

Table 4.3: Policy on Account Receivable

Statement	N	MN	SD
A written policies and internal operating procedures that have been approved by the governing body or senior management on accounts receivables	56	4.59	o.496
AAWSA see a need to modify credit policy to achieve a fit with prevailing branch circumstances	56	2.3	1.451
Head offices allow your branch to manage credit freely	56	2.09	1.325
The credit policy manual always used by the management	56	2.88	1.625
Overall average score	56	2.96	1.22

Source: Primary data, 2019

Table 4.3 shows there was strong agreement of the respondent that the organization has a written credit policy that have been approved by the governing body, have scored a mean of 4.59. For efficient management of receivables a written Policy and internal operating procedures are very important. According to Brown(2003), the first step for any company in any industry is to define its credit policy.

The other statement of policy that the managers review the policy to achieve a fit with prevailing branch circumstances, had scored a mean of 2.3, this means majority of the respondents disagree these imply that the management never reviewed the policies. According to John G. Salek, (2005) Policies and procedures should be reviewed periodically (the external auditors can advise how frequently) and updated as needed.

There was strong dis agreement that, head office allow branch to manage credit freely, has scored a mean of 2.09. It shows lack of empowering that the branches to manage credit. To improve on credit management practices and therefore tackle the debtors' problem, management must empower the regions and accord them a free hand in managing accounts (Onono, 2006)

4.4.2 Term of payment

Table 4.4: term of payment

Statement	N	MN	SD
gives enough credit terms for customer to pay their bill on time	56	3.57	1.488

Source: Primary data, 2019

From the above table it can be observed strong agreement of the respondent that, the company give enough credit term for customer to pay their debt, has scored a mean of 3.57. It shows that the customers were given enough duration to clear their debts. Naturally customers prefer longer credit periods; if the credit period is extended, the possibility of increasing sales associated with increases in both its collection costs and bad debts loss may occur. Thus a firm with long or extended credit periods will tend to have a large size of receivables (Periasamy, 2009).

4.4.3 Taking action for uncollected receivable

Table 4.5: Taking action

Statement	N	MN	SD
The authority taking measure immediately on customer that fails to pay the grace period	56	1.98	.820
AAWSA takes uniform measures in all branches on the customer who don't pay their bill	56	2.57	1.425
There is a room for customers to explain their complains in all branches	56	3.93	1.333
AAWSA has contracted third party collectors	56	2.00	1.250
Overall average score	56	2.42	1.207

Source: Primary data, 2019

As shown in table 4.5 average score of the authority taking measure for uncollectible receivablehas shown a grand mean score of 2.42 and standard deviation of 1.207 indicating the respondents strongly disagreed /disagreed with the statements presented to take measure . It implies it does not encourage customers to pay their bill on time. Measures have to be taken to ensure that it will be adequately compensated if borrowers default .The due date for the accounts rendered is clearly stated in the invoice and consequently, any customers in breach of this requirement isdisconnected from receiving further services and recovery measures immediately undertaken (Onono et al.,2006).

4.4.4 Recording of receivables and writing off bad debt

Table 4.6: Recording of receivables and writing off

Statement	N	MN	SD
AAWSA keep proper records for accounts receivable	56	3.8	1.432
AAWSA has experienced to Written of bad debts	56	2.21	1.449
Overall average score	56	3.00	1.44

Source: Primary data, 2019

On the above table Statement with there is proper records for accounts receivables, has scored a mean of 3.8. This indicated that majority of the respondents either agreed or strongly agreed to this idea. This helps to identify the balance at the end of the service year.

In Table 4.6 have Statement with, the organization experienced to write off bad debt,scored the mean of 2.21. This showed that the respondents either disagreed or strongly disagreed to the statement. This implied that the organization has older accounts receivable. Firm should set up regular reviews to monitor each customer's credit worthiness to keep a step ahead of bad debts write-off (Richard C, 2008).

4.4.5 What action does your company take in dealing with overdue accounts?

Table 4.7: Dealing with overdue accounts

Statement	Frequency	Percent
sending reminder not	9	16.1%
making telephone call	9	16.1%
termination of service	36	64.3%
legal proceeding	0	0
leave customer decide to pay	2	3.6%

Source: Primary data, 2019

As it can be observed from the table termination of service was mostly used action in dealing with overdue accounts whereas sending reminder notes and making telephone calls is averagely used. The least used action is leave customer decided to pay and no action in institute legal proceedings. It imply that the authority take various action. Among them termination of service is mostly used action by the organization. Adequate collection procedures should be in place, by following up debtors with formal letters, telephone calls and if necessary, disconnection of the line (Onono et al., 2006).

4.5Staff Knowledge about receivable

Table 4.8: Staff Knowledge about receivable

Statement	N	MN	SD
The company give training about receivable management	56	1.48	.713
Staffs that participate on managing credit sales have a knowledge of receivables	56	3.43	1.536
Overall average score	56	2.45	1.12

Source: Primary data, 2019

As it is described on the above table that the organization gives training about receivable management, revealed the mean score of 1.48. This showed that majority of respondents disagreed or didn't support the statement. This shows employee does not upgrade their knowledge about receivable. The utility runs obligatory training courses for staff that are direct contact with customers (Aldo Baietti., 2006).

4.6Political interference

The legal authority best owed upon a utility is often restricted in practice by the external environment, including political interference by the government. Government provided to utility managers for important decision making that could significantly affect the results achieved by the utility, such as setting tariffs, financing policy, procurement and responsibility for the appointment of top management and board members.

Table 4.9: Political interference

Statement	N	MN	SD
Government institutions make influence when AAWSA taking action	56	2.5	1.57
Government institutions paid their bill on the grace period	56	2.2	1.478
Overall average score	56	2.35	1.52

Source: Primary data, 2019

As one can see from table 4.9 above, the statement‘Government institutions make influence when AAWSA taking action’revealed the mean score of 2.5 which is the least score. This shows that majority of respondents disagreed or didn’t support the statement /idea. This indicated that there is some political interference on the collection of receivables. Public utility companies in developing countries are unable to collect outstanding bills in a timely manner due to inefficiencies in the billing and collection system, or political interfere prevent the utilities from forcing its customers, particularly government or government - owned entities to pay their bills (Ernest et al., 2016).

The other statement of political interference ‘Government institutions paid their receivable on the grace period’had scored a mean of 2.2. This indicated that majority of respondents disagreed the idea. That is government institutions were the major contributors to accounts receivable. This result is consistent with previous study conducted by Ernest (2016) that the Government and Government related accounts contributing 18.3% of the accounts receivable. The result of the study showed that government and government related institutions were the major contributors to the accounts receivable.

4.7Termination of service

Disconnection involves the interruption of service to a defaulting customer. Hence, termination is a reasonable practice when all other collections methods have been attempted in good faith and have failed.

Table 4.10: Termination of service

Statement	N	MN	SD
AAWSA has terminate service that customer do not paid in the grace period	56	3.61	1.51
Termination of service efficiently and effectively managed	56	2.55	1.53
Overall average score		3.8	1.52

Source: Primary data, 2019

As it can be observed from the above table 'the company terminate service that customer do not paid in the grace period' revealed the mean score of 3.61. This showed that majority of respondents agreed or support the statement .This indicated that termination of service as the main debt management tool in the organization.The other statement of termination of service 'termination of service efficiently and effectively managed'had scored a mean of 2.55.

This indicated that majority of respondents disagreed the idea. This shows that termination of service not effectively and efficiently managed.

Those results is consistent with previous study conducted by Ernest (2016) that termination of service as the main debt management tool was found to be ineffective as evidenced by the high days' sales outstanding and very low accounts receivable turnover.

4.8Technology

Technology is essential to achieving the effectiveness and the cost efficiency required of receivables management. Technology drives cost efficiency and effectiveness, but it is ineffective without staff skills and motivation, disciplined work habits and strong supervision. The functionality of receivables management technology have a capabilities of Accurate aging of invoices, Truly automated collection letters, Truly automated statements of account, prioritization of accounts for collection action, diary follow-up reminder are some functions (John.G2005).

Table 4.11. Technology

Statement	N	MN	SD
the organization use technology when the preparation of bill	56	4.5	0.763
The credit control department reconciles accounts receivables using technology	56	3.61	1.522
Overall average score	56	4.055	1.425

Source: Primary data, 2019

Results on Table 4.11 indicate that the average of technology has shown a grand mean score of 4.0 and standard deviation of 1.425 indicated that the respondents strongly agreed /agreed with the statements presented to assess technology.This has shown that the organization use technology to manage receivables. It implies technology minimize lack of data integrity, inaccurate ageing and facilitate information inter change.

4.9. Analysis in Ageing of Debts

Ageing of debts is used to monitor and also to estimate uncollectible accounts receivable. The ageing of AAWSA accounts receivable are shown in Table 4.12 and 4.13.The ageing has been categorized as the total authority debt and by customer class.

Table 4.12: Ageing schedule of AAWSA debt at October 2019

Age of Account in days	Amount (Birr)	Percentage	Cumulative
30day	292,028,474.32	31	31
60days	165,853,267.71	18	48
More than60days	476,146,394.56	51	100
Total	934,028,136.59	100	

Source: AAWSA Database (2019)

The above table showed 31% of receivable were 30 days, 18% of receivable were 60 days while 51% of receivable were over 60 days. These shows more than 60 days of receivable had the highest debt from others. It is therefore imperative that the AAWSA devotes special attention to its debt more than 60 days to minimize uncollectible debts.

Table 4.13: Ageing of Debt by Customer Class as at October 2019

Domestic Customer			Non Domestic Customer		Governments Institutions	
Age of Account in days	Amount (Birr)	%	Amount(Birr)	%	Amount(Birr)	%
30days	47,335,719.88	20	166,614,086.94	35.4	77,378,339.32	35
60days	39,677,532.81	16	94,712,423.73	20.1	30,951,335.73	14
More than60days	155,215,386.5	64	209,392,022.71	44.5	112,751,294.43	51
Total	242,228,635.18	100	470,718533.37	100	221,080,969.48	100

Source: AAWSA Database (2019)

Tables 4.13 above, Non-Domestic customers are more indebted to the company than Domestic and government institution. Non-domestic customers have 50% of debt in 2019 Domestic and government institution contributing 26% and 24% respectively. This lead more uncollectable receivable in each customer category.

4.9Water Sales and Accounts Receivable from 2015-2019 in birr

Table 4.14: Water Sales and Accounts Receivable from 2015-2019 in birr

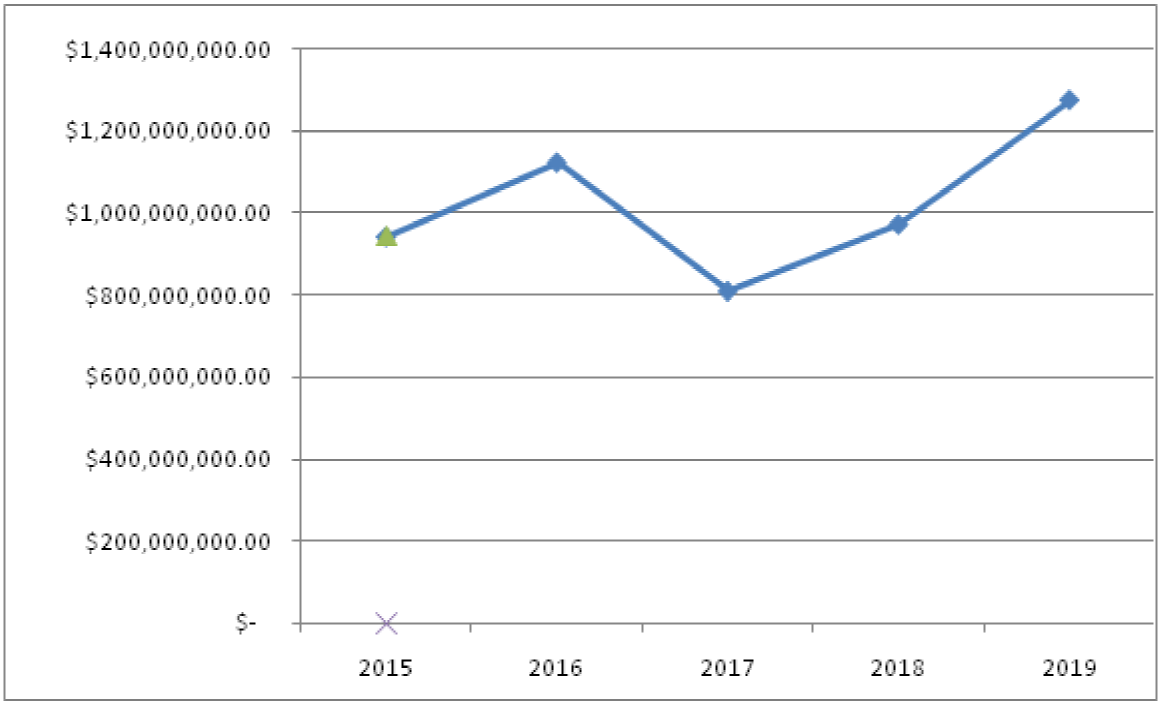
Year	2015	2016	2017	2018	2019
water sales	1,394,405,241.00	1,776,961,280.00	1,483,991,984.00	1,694,694,449.00	2,151,202,452.00
account receivable	942,798,113.00	1,122,704,380.30	811,121,507.60	972,942,866.70	1,274,457,385.10
Accounts Rec. /Sales (%)	67%	63%	54%	57%	59%
Average Collection Period (ACP)	260	214	238	192	191

Source: AAWSA Database (2019)

Water sales increased from Br1, 394,405,241.00 in 2015 to Br2, 151,202,452.00 in 2019 as shown in Table 4.14. This represented about 54% increase in sales revenue over the 2019. Account receivable decreased in 2017 then increased in 2018 and 2019.The ratio of accounts receivable to sales was 67% at the beginning of the study period in 2015 and decrease to 63% in 2016 and 54% in 2017 but started increasing in 2018 and 2019 at 57% and 59% respectively.

The above result also shows during the period between 2015 and 2019 the average time to collect the debts was 219 days. Company gives almost 30 day credit period. Therefore days' sales outstanding ratio of over 30 should be a cause for concern. According to Menke (1994) all customers (government or private) their outstanding payments did not be exceeding 90 day.

Figure 4.1.Trend in Accounts Receivable from 2015-2019



Source: AAWSA Database (2019)

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of finding

The main objective of the study is to assess receivable management practice in Addis Ababa Water and Sewerage Authority. This section highlights the major findings of the project and draws conclusion from the results obtained.

5.1.1 Trend of accounts receivable

The first objectives of the study were to find out the trend of accounts receivable from 2015 to 2019. The result shows that accounts receivable has been increasing in 2016 and decreased in 2017 but also increased in 2018 and 2019.The percentage of account receivable to sales decreased from 67% in 2015 to 63% in 2016 and also decreased in 54% in 2017 but increased to 57% and 59% in 2018 and 2019.

Previous study by Ernest et al.,(2016) indicated that the percentage of accounts receivable to sale and the net accounts receivable has been increasing. The percentage of account receivable to sales decreed from 43.7% in 2009 to 35% in 2010 but increased to 38.6% in 2011 where it remained the same for 2012 and 2013. The net accounts receivable has been increasing steadily from 2009 to 2012 and decreased only in 2013.

5.1.2 Staff knowledge in accounts receivable management

The second objectives of the study were to determine the level of company's staff knowledge in account receivable management. The study found that above half of the revenue management employees has knowledge of receivables. But the company didn’t given training about receivable management. To improve staff knowledge and skill the organization should be implement periodic training. A Training is a continues process of helping employees to perform at high level, it may occurs on the job or at special training facility (JamesH, JamesL.andJoneM., 1990)

5.1.3 Termination of service

The third objectives of the study were to evaluate termination of service is effective as a debt management tool. The result showed that termination of service as the main debt management tool in the organization but did not efficiently and effectively managed. Previous studies in which several researchers (Abubakar, 2016; Cheng, 2013; Mugisha, 2013) found that threats of punishment, threat of disconnection, and actual disconnection of water supply could make customers pay outstanding bills. (Nicholas, 2017) also found that disconnection of water supply would address problems of delayed and unpaid water bills. Moreover (Anjali Sen, 2008) found that Bill collection improved from 91 percent to 97 percent, due to a strict disconnection policy for disconnecting those who defaulted in making regular payments.

5.1.4 Customer classification on accounts receivable

The fourth objective of the study was to identify which customer classes have large debt. The result shows that non domestic customers contribute 50% followed by Domestic customer with 26% and Government institution contributing 24% of the accounts receivable. Therefore non domestic, domestic customer and government institutions were the major contributors to the accounts receivable.

Previous studies by Ernest et al.,(2016) found that in classification of debtors by customer class, residential customers contributed more than half of the debt (51.4%) followed by commercial customers with 26.5% and Government and Government related accounts contributing 18.3% of the accounts receivable.

5.1.5 Political interference

The fifths objectives of the study were to assess the effect of Government institutions on collection of receivables. The result shows that Government institutions did not paid its debt in the grace period and also make influence when the company taking action its customers. Onono et al.,(2006) indicate Government institutions are the worst defaulters and consequently contribute to the highest proportion on the provisions for bad debts of the company. According to (Anjali Sen, 2008) Political pressure may also prevent service providers and force them to keep water services flowing even if the consumer is not paying.

5.1.6 Technology

The fifths objectives of the study were to assess the effect of technology on account of receivable management. Results showed that AAWSA keep records of accounts receivable and utilize technology in the preparation of bill, keep records of receivable accounts, for credit control and reconcile debtors account. The quality of technology facilities embraced at any organization is very important because it influences accounts receivables management and hence improves the organization performance at large (Simon, 2014).

5.1.7 The receivable management practice

The last objective of the study was to evaluate the receivable management practice applied by the authority. Results indicated that head office did not allow branches to manage credit freely; AAWSA did not taking measure immediately on customer that fails to pay in the grace period. In addition the credit policy manual did not always used by the management, and has not experienced to write off bad debt were the main findings. Previous studies by Onono et al. (2006) shows there was a lack of consistency in empowering the regions in the management of

credit and also the credit policy requires regular review and clear documentation. The finding that taking action on the defaulters (Edwards, 1997) indicated that the Measures have to be taken to ensure that they will be adequately compensated if borrowers default. According to (John G. Salek, 2005) too many companies cling to small, old amounts of doubtful value, the costof tracking them and attempting collection exceeds the expected payback and the management have mandates the write-off most clutter debits at a defined age**.**

5.2 Conclusions

Based on the objectives and the findings of the study the following conclusion can be made.

5.2.1 Trend of accounts receivable

From the five years data collected it was observed that AAWSA has not effectively managing its accounts receivable from 2015 to 2019 , since the major indicators are accounts receivable to sales ratio and days' sales outstanding did not improve during the study period.

5.2.2 Staff knowledge in accounts receivable management

The authority gives responsibility of debt collection without giving adequate training. It can be concluded that staffs that employed on the credit department were doing their tasks by experience. This reveals a major weakness in the debt management process.

5.2.3 Termination of service

Termination of service is the main debt management tool in the organization but did not efficiently and effectively manage. There is well organization of work disconnection, effective supervision of field work and post disconnection management is efficiently managed it is effective tool for collection of receivable.

5.2.4 Customer classification on accounts receivable

To manage credit sales effectively, AAWSA must re-assess its sales contract with the Government and non-domestic customer. In addition to that there should be strong follow up and collection efforts. Those were made high uncollected bill and consequently contribute to high provisions for high debts.

5.2.5 Political interference

Government body did not paid their debt and also make influence when the organization taking action on its customers. This arises either from the deliberate tendency of the executives to be bureaucrat orlack of awareness.

5.2.6 The receivable management practice

To improve on receivable management, the organization management must give to the branches a free hand in managing accounts receivables because they are more familiar with the socio-economic factors of the local environment and being best placed to deal better with the local clients than the head office. Also the credit policy manual was a key driver to manage account receivable so the manager must be revised periodically. By making cost- benefit analysis the authority would be advisable to be made writing off having large age accounts.

5.3. Recommendations

The following recommendation is suggested as possible solutions on the basis of the major findings and conclusion discussed above. The recommendation is given there is based on the objectives of the study. Therefore the researcher recommends that the organization to implement the following points in order to minimize long outstanding aged receivables by reviewing the practices.

- The current credit management police procedures and practices shouldreviewby the company to collect overdue account receivable.
- Termination of service was a credible business strategy used to address in efficiencies in the collection of water receivables. It is recommended to termination of service will be a last option when customers failed to settle their outstanding bills after getting reminders notices.
- It recommended that authority should take decision on bills accumulated for several years by differentiating those bills that can be claimed and those which can’t be.
- Training is an important means of acquiring new knowledge and skills. The company has been organizing training for staffs that employed on the credit department.
- The company must closely monitor the non-Domestic customers and government institution since it is relatively easier to manage than the large residential customers and also will be collected large amount of debt. A strategy of segmentation of customers may facilitate the collection of over aged debts.
- The company has to find new strategies to deal with government and government institution those are delinquent in the payment of their water bills.

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1. ADDIS ABABA UNIVERSTY COLLEGE OF BUSINES AND ECONOMICS

DEPARTMENT OF ACCOUNTING AND FINANCE

Questioner for AAWSA Employees

SECTION 1: INTRODUCTION

I am conducting a research on receivable management practice in AAWSA. So you are one of the respondents selected to participate in this study. The information you are providing will be great importance in producing current, practical and reliable output that will inform readers of the study. The information you will provide is confidential and only used for the academic purpose.

Thank you in advance for your kind cooperation!

Instruction:

- ❖ No need of writing your name
- ❖ For multiple choice questions indicate your answers with a checkmark (√) in the appropriate block.

Section 2: General Information

1. Indicate your work branch

A. Addisketema B. Megenagna C. Gured shola

2. Educational level:

A. Diploma B. Degree C. Masters D. other

3. Number of years ,you work in the organization -----------

A. One-Five years B. Six-Ten years C. Above 10 years

4. For how long have you been working with management of accounts receivables?

A. One-Five years B Six-Ten years C. Above 10 years

Section 3: Receivable Management Practices

The following question aims to assess of receivable management practice in AAWSA. Please a tick mark (√) under the choices below. Where, 5 = strongly agree, 4 =agree, 3 = neutral, 2 = disagree and 1= strongly disagree.

1. **Please indicate the degree to which you agree or disagree with the following Statements concerning the organization police on account receivable.**

No	Statement	5	4	3	2	1
1.1	Are there written policies and internal operating procedures that have been approved by the governing body or senior management on accounts receivables??					
1.2	Does your company see a need to modify credit policy to achieve a fit with prevailing branch circumstances?					
1.3	Head offices allow your branch to manage credit freely?					
1.4	The credit policy manual always used by the management?					

2. Please indicate the degree to which you agree or disagree with the following Statements concerning the term of payment.

No	Statement	5	4	3	2	1
2.1	Gives enough credit terms for customer to pay their bill on time					

3. Please indicate the degree to which you agree or disagree with the following Statements concerning of taking action on receivable.

No	Statement	5	4	3	2	1
3.1	The authority taking measure immediately on customer that fails to pay the grace period					
3.2	AAWSA takes uniform measures in all branches on the customer who don't pay their bill on time					
3.3	There is a room for customers to explain their complains in all branches					
3.4	AAWSA has contracted third party collectors					

4. **Please indicate the degree to which you agree or disagree with the following Statements concerning of recording of receivable and writing off**

No	**Statement**	**5**	**4**	**3**	**2**	**1**
4..1	Do you keep proper records for accounts receivable?					
4.2	Does your company experienced to Written of bad debts?					

5. **Please indicate the degree to which you agree or disagree with the following Statements concerning of staff knowledge about receivable**

No	Statement	**5**	**4**	**3**	**2**	**1**
5.1	The company give training about receivable management					
5.2	Staffs that participate on managing credit sales have a knowledge of receivables					

6. **Please indicate the degree to which you agree or disagree with the following Statements concerning of political interference**

No	Statement	**5**	**4**	**3**	**2**	**1**
6.1	Government institutions make influence when AAWSA taking action					
6.2	Government institutions paid their bill on the grace period					

7. **Please indicate the degree to which you agree or disagree with the following Statements concerning of Termination of service**

No	Statement	**5**	**4**	**3**	**2**	**1**
7.1	AAWSA has terminate service that customer do not paid in the grace period					
7.2	Does Termination of service efficiently and effectively managed					

8. **Please indicate the degree to which you agree or disagree with the following Statements concerning of technology**

No	Statement	**5**	**4**	**3**	**2**	**1**
8.1	Is the organization use technology when the preparation of bill?					
8.2	The credit control department reconciles accounts receivables using Technology					

9. What action (s) does your company take in dealing with overdue accounts?

    A) Sending reminder notes ( )

    B) Making telephone calls ( )

    C) Termination of service ( )

    D) Institute legal proceedings ( )

    E) Leave the customer alone to decide when to pay ( )

Please include in this space any other information which in your opinion is relevant in regards to receivable

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