

**STRATEGIC OUTSOURCING AND SERVICE DELIVERY: A CASE OF
KERICHO WATER AND SANITATION COMPANY (KEWASCO) IN
KENYA.**

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DECLARATION

I declare that this research project is my work and has not been submitted for a master degree or any other award in any other university.

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DEDICATION

This work is dedicated to my husband Saul Marigat, my children Corrine, Imani and Paul, without their caring support it would not have been possible to accomplish what I have done so far. I also devote it to all business students whose desire to learn keeps me motivated to learn more.

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LIST OF ABBREVIATION

KEWASCO: Kericho Water and Sanitation Company

WASREB: Water Service Regulatory Board

WSB: Water Service Board

WSIs: Water Sector Institutes

KPIs: Key Performance Indicators

OPERATIONAL DEFINITION OF TERMS

Strategic Outsourcing: Management strategy where an organization assigns non-core activities to a specialized service provider so that it is left to perform and concentrate with core tasks to gain competitive advantage hence promote service delivery. This study focused on three outsourced functions namely; security, revenue collection and maintenance.

Service Delivery: Process of developing and delivering of quality services by ensuring: consumer engagement; proper service design and development; delivering and evaluating consumer satisfaction. In water sector, exceptional service is achieved with low operation costs, low non-revenue water, revenue collection efficiency, consistent supply of quality water.

Water Sector: An entity that provides safe drinking, sewerage services and waste water treatment services to public for both consumer and industrial purposes, it operates water supply networks but doesn't manufacture and supplies bottled water.

Revenue collection efficiency: Ratio as expressed in percentages, of revenue collected in relations to the revenue that was billed over a period of time

Service hours: Average number of hours per day that a utility provides water to its customers/measures consistency of water supply to customers.

Non-revenue water: Water produced and injected into water system less billed water as authorized consumption (unaccounted water loss)

Water coverage: Expressed in percentage, of people served with water and sewerage services within a service area that is stipulated in the service provision agreement.

ABSTRACT

The current scarcity of public resources in world economies has led to adoption of strict measures to ensure efficiency in service delivery. The pressure to deliver more for less has steered managers to focus towards outsourcing strategy, which has attracted much attention in the recent years owing its important role of efficiency in service delivery across all sectors of economy. This study main aim is to establish the relationship between strategic outsourcing and service delivery at Kericho Water and Sanitation Company (KEWASCO) in Kenya. The study sought to determine effects of outsourcing security services, revenue collection and maintenance on service delivery. The research anchored on four main theories: Agency Theory, Core competency Theory, Resource-Based View theory and Transaction cost theory. The study employed descriptive research design. This study targeted a population of 17232 KEWASCO stakeholders from which a representative sample size of 175 was chosen through various sampling techniques. First, purposeful sampling technique was applied on the company employees and water officials while clustering and stratified random sampling was applied on the organization's customers. Questionnaires and interview guides formed main instruments for data collection. These methods were deemed appropriate as questionnaire use is time saving and flexible, and interviews allowed in-depth understanding of situation under study. Reliability and validity of data collection instruments was acquired through test-retest scenario where, similar result of reliability coefficient was obtained through pilot study. Data collected was then summarized for analysis, with the aid of Statistical Package for Social Sciences (SPSS) software. Data finding was then presented in frequency tables, percentages and means. Later inferential statistics including; Chi-square and regression were employed for analysis. Based on analysis, the study revealed that outsourced services by the water company had in many ways positively influence key performance indicators including; revenue collection efficiency, cost of production, reduced non-revenue water, consistent supply of quality water, as well as staff productivity. Therefore, study findings conclude that organization under study could be failing to meet the required service delivery targets because of other issues other than failure of the three outsourced functions. The study suggests that firms and in particular Kericho Water and Sanitation Company may consider outsourcing more of its non-core functions. This is because the three outsourced services under investigation in this study have proven to be fruitful in as far as the improvement of service delivery is concerned. The findings further recommend that organizations should review their outsourcing strategies to ensure competent service providers are awarded tenders. As it was found that non competent service providers in maintenance department had not fully offered quality service, resulting in regular pipe leakages and pump failures which led to frequent complaints from customers due to service interruption.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

As demand for outsourcing grows constantly being one of the major business trends, researchers have recently termed it “strategic outsourcing” It is believed to play an important role by improving service delivery systems. Its significance has ensured firms meet ever increasing demands of customers (Pule & Masaba, 2015). Basically, outsourcing meets efficiency through; reduction of operation costs, increasing market flexibility, enhancing firms to deal with unpredicted high demands, and reducing the cycle time by outsourcing peripheral activities to specialists while concentrating on their core tasks. (Arthur, 2009; Manning, 2013; Venkatesha & Mohanty, 2014 and Pule & Masaba, 2015).

Widespread global recession of economies that has affected public sector budgets influenced discussion on competitive strategies to economic and financial crisis in the service sectors. As a result of ongoing global economic turbulence, new cooperation forms emerged between public and private organizations in service delivery (Sullivan et al. 2013). For example, according to Barlow, Roerich and Wright (2013), public organizations sought to deliver services more efficiently, as private organizations were simultaneously adopted as a means of service delivery at affordable budgets.

In large economies such as Finland and United Kingdom public- private partnerships models has been established to ensure efficiency of service delivery in healthcare and social service sector (Barlow, Roerich and Wright 2013; Marques and Berg 2011). According to Eurofund statistics of 2015, the administration aimed reducing the cost

of delivery by 4 billion euros annually by restructuring the delivery of social and health care services (Ratkaisujen Suomi 2015). These economies adopted outsourcing strategy to reduce public sector expenditure on delivery of health care and social services.

Regionally, study carried by Rajabu 2013, shows that outsourcing strategy has been adopted in key service like revenue collection. Research found that the move created adequate time for the organization in-house employees to engage in improving customers' needs (Kiser & Baker, 1994). Furthermore, a private agent provides a flexible labor input compared to full time staff under-utilized in low seasons. For example, According to Katera, (2008) the company contracted by Mwanza City council (MCC) to collect revenue in 2008 at Mwaloni fish market engaged up to 25 collectors during the peak revenue collecting season and reduced the number to 10 during low season. This is not feasible in a situation where the organization employs staff on permanent. This is a proof that even sensitive the activities such as, revenue collection has been outsourced to improve efficiency in delivery of services.

At local perspective, Kenyan public sector on outsourcing was underscored in the Kenya Vision 2030 program which was unveiled in 2007. According to act of parliament 2008 the government of Kenya, incorporated the policy to appropriately serve its citizens. The strategy was envisioned to enable the public institutions access new technology and gap bureaucratic inefficiencies in service delivery systems (Yuboah, 2013). This concur with Venkatasasha & Mohanty, (2014) argument that the fundamental reason for introducing outsourcing in organizations is the fact that

such delivery approach can save costs by reducing bureaucratic inefficiencies in service delivery

According to Corner (2004), outsourcing is a management tool where an organization assigns non-core functions to experts, who are more effective and efficient providers so that organization is left to perform and concentrate in its core activities to enhance services.

On the other hand service delivery, is a continuous process of developing and delivering development; delivering (disseminating and communicating) and evaluating & improvement for user satisfaction (Skaggs & Galli-Debicella, 2012).

According to Kiongera et al., (2014), the current service delivery offers many opportunities for world class companies to improve services through public-private partnerships arrangements. Competitive firms partner with international firms with transformational focus to improve operations through; risk mitigation, access technical capabilities, sustainable competitive advantage and freeing up core resource for maximum utilization. Competitive advantage is gained when most business operations are performed within minimal time frame within small budget possible (efficiently and effective).

Past studies agree that outsourcing provides an improved quality by utilizing a service provider with more know how in providing a particular service. This allows an organization to offer exceptional service ensuring customer satisfaction (Ndungu & Shale, 2016). Also a study by Masangi (2013), notes that outside service providers plays significant role in implementing necessary changes in the service industry

brought about by technology. Similarly, for an organization with inadequate capacity to complete its delivery system, outsourcing may be an option to ensure improved service for its clients.

Further study has confirmed that effective outsourcing practice can lead to continuous improvement of service delivery by allowing an organization to gain a competitive advantage. In view of (Arthur, 2009; Kinyua, 2010 and Masaba & Pule 2015) outsourcing advantage covers wide areas including; cost efficiencies, marketing advantage, superior quality, sustainable growth and improved customer service. For example outsourcing practice, promote focus towards value chain optimization enhancing value addition at low cost while at the same time serving customer better. Maku & Alvaro (2014) agree that customer service delivery can be enhanced by providing accurate information to customer needs in a real time through coordination.

According to Manning (2013), service delivery has changed through outsource of non-core functions that are resource intensive; either high labor or capital costs, those that require specialist competencies, those that are dependent on the rapidly changing technology as well as those that requires expensive investment.

According to Gartener group, there is a significant growth of outsourcing strategy globally. The global market size was estimated to have grown from \$21.3 billion in 1997 to approximately 60 billion in 2005 with possible annual growth rate of 15% (Lee 2001).

Previous studies however, reveals most public entities are yet to reap intended reap benefits of outsourcing strategy. According to Kenyan Audit general report

2016/2019, services are not provided on time, specification does not match expected standards and an approximate of 70% of public entities complain of late deliveries. According to Karia (2014), outsourcing lack adequate top management support due to corruption and bureaucratic nature of public institutions, this consequently has led to in-sourcing of services from inefficient firms. Non- competent firms not only offer low quality, past research has also confirmed prolonged lead time; loss of control and under estimation of costs.

1.1.1 Service Delivery

Service delivery involves a continuous process of developing and delivering of quality services by ensuring: consumer engagement; proper design and development of products; timely delivering and communicating and finally evaluating for improvement to ensure end user satisfaction (Skaggs & Galli Debicella, 2012).

An effective-efficient service delivery requires an integrated system such as; channels of communication, funds, diverse skills which often are unmatched in an organization (Burnes 2004). Managers in the current modern world are therefore faced challenge to get right service for their customers given ever evolving desire for quality products, firms have since embraced outsourcing for efficiency in service delivery.

According to Skaggs & Galli-Debicella, (2012) service delivery is a continuous improvement of products and services by an organization to ensure consumer tailored service is achieved.

The process ensure: customer engagement; proper service design and product development; efficient delivery channels; effective communication; evaluation and improvements. The universally accepted service parameters include: timely response to complaints from customers; consistency in quality supply of products; sustainably development; continuous improvement among many others.

In water sector, the Kenyan government through WASREB (regulator) has put up reforms to ensure supply of clean water and access to sewerage services to the citizens by Water Service Providers (WSPs). WASREB has therefore come up with key performance indicators to guide water service providers in service delivery system. These indicators include: low non-revenue water; revenue collection efficiency; high service hours; wide water and sewer connection; low operation costs and consistent supply clean water.

Both public and private sector has ensured service delivery efficiency is achieved not only through good organizational structure but also ensuring speedy delivery systems and how reactive the service is to demands from the society regarding the basic needs in form of basic social services. Unfortunately, inconsistency in quality and delays in delivery of these services continue to lead to loss of confidence in most public institutions.

For example in water sector, efficient service delivery is achieved by ensuring, continuous supply of quality water to consumers; quick response to leakages and break downs; wide water and sewer services connections to the public and efficiency in revenue collection by the water company.

Corner (2004), argues that public entities may not directly deliver the service but much as a matter of strategic policies should allow efficient and effective procedures in delivery of services. Public sector in Kenya under guide of new promulgated constitution of 2010 has a role to deliver essential services to all citizens. Water sector in particular has gone through several reforms with aim of ensuring supply of clean water and wide sewer coverage to all Kenyans.

Current competitive environment induced by globalization and advances in information technology have forced companies to focus on service delivery, and in particular customer satisfaction to remain relevant and maximize revenues. Also, is important to know the current modern technology buyers have much expectation and before making purchase decision a product or a service that exceed their expectation (customer delivering quality service), it is considered an essential strategy for success and survival in today's competitive environment (Masangi, 2013). The focus of any business system is to provide all customers with the level of service delivery they require and as no budget is unlimited.

1.1.2 Strategic Outsourcing

According to Maku and Alvaro (2014), turbulent business environment coupled with increasing demands from customers for quality, has forced managers to adopt outsourcing strategy to improve quality and gain competitive advantage. Insinga & Werle (2000) note that, process outsourcing in manufacturing firms has contributed immensely to high quality level of products and a significant reduction of defective products ensuring enhance service through business process outsourcing.

According to Nordin (2008), some value chain activities can generate operational efficiency by reducing capital investment as well as ensuring maximum utilization of key resources, ensuring maximum value generation from the least possible inputs. Extensive work in this area has demonstrated that in most cases the strategic suppliers will beat the in-house team on cost. This is because outside supplier will mostly offer substantially improved terms and conditions if the buyer is willing to enter into long-term rather than short-term relationships, especially if these are single sourced. However, previous researchers caution that single sourcing practice might lead to compromise of quality standards and can be expensive in near future hence, multi-sourcing practice should be considered. Multi-sourcing allow selection of competitive suppliers both in terms of cost and quality standards as strategic outsourcing relationship brings positive service delivery in organizations

The current service economy requires that organizations meet some world standards to offer services. This requirement has left local firms with no option but import services due to lack of right skills (Kremic et al., 2006). Specialized firms are believed to give emphasis on quality service delivery for example, a logistic firm would have a better understanding on timely delivery of product using shortest route possible and a firm will therefore avoid some risks as they focus their core resources towards excellent quality.

Previous literature has also credited outsourcing for freeing organizations of human resource management. Multinational companies prefer to outsource the function to avoid labor related issues. Mulama (2012) puts that, outsourcing provides a short-term solution to rigidities caused by labor laws, despite argument of managers outsourcing

with an aim to attract more professional and motivated workers, companies limit themselves by viewing outsourcing merely as a simple tactic of freeing themselves of permanent staff and the legislative pressures

Organizations have also supported outsourcing for its ability to generate new service concepts that has enhance service delivery. Creative ideas and new techniques have been conceptualized by in-house employees. Creative firms emerge through successful tendering basically due to emergence of young innovative firms organizations have ability to choose experts to improve quality (Masaba & Pule 2015). Manning (2013), further points out that, service outsourcing allows firms to collaborate with specialists in development of service delivery processes that enhance quality at minimal cost.

Despite recognition of colorful benefits of sourcing, there is a debate and lack of empirical evidence on the best approach to guarantee the realization of excellent service in the public sector context (Sullivan et al. 2013). Karia (2014), outsourcing strategy involves a lot of investment; resources are required to follow through with an outsourcing consideration, competitive tendering as well as contract management and monitoring. These costs are especially high during the transition phase and may rise to a level many public organizations are not able to bear (Barlow et al. 2013).

The shift in paradigm to “core competency” has necessitated the outsourcing in functions that are personnel-oriented like security provision. Survey by (Koingera 2014; Maku & Alvaro 2013; Masaba & Pule 2015), confirm that outsourcing improves service delivery because it allows organizations to redirect competencies the core processes of their production. Similarly, literature agrees that outsourcing

security services decreases organizational risks because the burden of worrying is transferred to the security firm through a contract (Muchai 2010; Mkutu & Sabala 2008). To confirm their findings there is need to conduct more study to find out why most organization outsource security function.

Despite wide acceptance of private-public partnership in service delivery, there some core functions which has raised debate on contractual arrangement due to their sensitivity nature. Revenue collection is a very sensitive function and the debate on contractual arrangements has been an endless. This is because revenue is a lifeline of every organization. Despite the acceptable comments, other studies confirm that outsourcing revenue collection is an expensive practice because it is only shifts/replicates costs from the organization to a service provider (Rajabu, 2013). Whether this is true more study needs to be down.

The need for efficient production of goods and services has led managers to come up with appropriate maintenance strategies (Campbell, 1995). However, due to complexity in terms of technology and the pressure to efficiently produce in recent years, firms have been forced to outsource their maintenance function (Parida & Kumar, 2006)

1.1.3 Kericho Water and Sanitation Company

The Government of Kenya has shown significant commitment in water sector since 1990 with aim to provide safe drinking water and sanitation services to all citizens. The 2002 water Act advocated for the sector to expand water suppliers, this led to formation of Water Services Boards (WSBs) at regional level and later to the current Water Sector Institutions (WSIs) now fully owned by County Governments. Further,

to ensure sustainable development for water resources and supply of safe drinking water, an independent institution was established; the Water Service Regulatory Board (WASREB).

The government of Kenya through ministry of water and irrigation has continued to emphasize on water sector to provide enabling environment for wide coverage and quality service by water service providers. Through oversight role of WASREB, the government has ensured all Water Service Providers like Kericho Water Supply and Sewerage Company (KEWASCO) adhere to Water Act 2002 of the constitution of Kenya 2010. Being a public institution owned by Kericho County Government, KEWASCO was established under company's Act CAP 486, laws of Kenya to provide safe clean water and sewer services to Kericho County residents and its environ.

While devolution is critical for deployment of essential services to citizens in Kenya, KEWASCO still cannot meet the expected service levels define by WASREB. Instead, the company has regularly received complaints from its consumers. Despite significant allocation of \$ 5 million funds by the county government in 2017/2018 budget as investment plan for the sector to improve water infrastructure and expand water network, only an approximate of 47% residents access clean water. Also little has been achieved as far as non-revenue water is concerned, technical department still sight leakages as their main challenge in serving registered clients appropriately, also revenue collection efficiency has not been achieved consequently impacting on operations of the utility.

WASREB 2015 report indicates that KEWASCO failed to attain required service levels as indicated by; low connections, high operation costs, high rate of non-revenue water, low response to client complaints among other challenges. KEWASCO 2016 annual report however, sighted these challenges being partly due to; limited funding by the county government, mismanagement of utilities, misappropriation of funds and unprecedented growth in demand.

Regular complaints by customers has mounted pressure on the company management to come up with several policies including, adoption of outsourcing strategy to gap inefficiencies and promote service delivery. According to tender document (2015/2016), KEWASCO has been on a fore front outsourcing its non-core activities including; security, revenue collection, maintenance among other services. Whether the adoption of policies has improved delivery of services at KEWASCO is yet to be established.

1.2 Statement of the Problem

Kenyan public sector has continually adopted different management strategies to achieve efficiency in service delivery. In water sector for example, KEWASCO has adopted outsourcing to ensure: consistent supply of clean water; improved revenue collection efficiency; reduced non-revenue water; increased service hours and low operation costs. However, it is not yet clear whether the company has improved its service delivery systems. Besides, according to WASREB impact report (2018) KEWASCO failed to attain minimum service levels due to; high non-revenue water, water supply interruptions, high production costs, poor response to complaints among other challenges. This study therefore was carried to empirically verify the effects of

outsourcing on service delivery in water sector with KEWASCO as a reference company.

Literature review confirms that despite the rapid growth of outsourcing concept, there are limited published sources of literature related to outsourcing in Kenyan water sector. Besides the relationships between outsourcing and service delivery is not well documented. This is supported by the fact that previous outsourcing studies give contradicting outcomes. While some give positive results, other reports give negative results.

For example, Karia (2014) confirms on his survey that Kenyan corporations fail to harness outsourcing benefits due to lack of top management support, corruption and bureaucratic nature of public institutions. Consequently, due to ineffective and inefficient planning a sample survey on firms in developed economies including; North America, Japan, Europe and Asia posted poor performance in outsourcing. Also a survey by Deloitte, (2014) found that most large firms that outsourced failed to achieve the expected cost saving focus. Although outsourcing had improved quality, loss of in-house creativity was evident.

Also survey studies by (Berinato, 2001; Muchai, 2010; Rajabu, 2013 Karia, 2014 and Al-Hammud, 2015), revealed that the major risk incurred by outsourcing organizations is the inability to identify hidden costs at decision making phase. Also a study conducted by Al-Hammud (2015) on maintenance outsourcing found that getting right expertise may be a challenge. Whether KEWASCO face the same challenges need to be examined.

1.3 Research Objectives

This study intention is to establish the effect of strategic outsourcing on service delivery at Kericho Water and Sanitation Company (KEWASCO)

The study is guided by the following three objectives:

- i. To determine the effect of outsourcing security services on service delivery in KEWASCO
- ii. To assess the effect of outsourcing revenue collection services on service delivery in KEWASCO
- iii. To establish the effect of outsourcing repair and maintenance services on service delivery in KEWASCO

1.4 Research Questions

- i. What are the effects of Security outsourcing on service delivery at KEWASCO?
- ii. To what extent has revenue collection outsourcing affected service delivery at KEWASCO?
- iii. How has Repair and maintenance outsourcing influenced service delivery at KEWASCO?

1.5 Significance of the study

Findings from this study will provide valuable information to KEWASCO stakeholders and entire water sector.

The management benefits from this study by obtaining valuable information contributed by various individuals concerning quality service. This information enable management know whether their relationship between outsourcing strategy and

service delivery. Researched-based information will therefore eventually ensure implementation of policies based on facts for improvement; this will ensure excellent service in water sector.

Establishing the relationship between strategic outsourcing and service delivery at KEWASCO will amount to an incredible generation of new knowledge. Findings will provide literature in the field of strategic management to improve service delivery in organizations. Researchers will also benefit by finding study gap to further their researches, especially in continuation of various studies that are related to this study. Incoming researchers with inexperienced skills will be aided by this report as they also make this study a source for their reference.

Whatever decisions made towards service delivery by KEWASCO will have positive impact on the customers. Policies adopted will ensure regular water supply, prompt response and ultimately the cost of water may be reduced.

Other water supply entities will find this study very useful whereby the identified impacts of outsourcing strategy on service delivery will be applied in to improve service delivery in water sector. The national governments will use this information by identifying the weaknesses of outsourcing strategy devolved functions and come up with possible solutions which solved outsourcing strategy practices.

1.6 Limitation to the study

The study employed purposive sampling technique; where some members of the population were intentionally picked by the researcher for study. This technique is

prone to biasness however, the researcher avoided biasness by targeting those respondents previously mentioned to have major roles in secondary sources reviews and the in the organization's organogram. Respondents who were significantly mentioned on secondary source data to have major roles in water sector were picked for study. For example, in this study KEWASCOS' commercial manager was sampled to give her views on revenue efficiency of the company representatives from county government of Kericho were also included.

Finance was a limiting factor for this study, however researcher employed use technology to interview its' respondents as compared to physically booking face to face appointments. Also use of questionnaires was cheaper as respondents were given questionnaire guides to fill and return.

Time limit also was also another challenge. Given a time limit 1 month to go to field for data collection required a lot of organization to ensure limited time was fruitful in getting appropriate information. Choice of appropriate data instruments necessitate retrieve of required information within little time possible.

Lower response rate from respondents is another challenge usually critical in getting a quality research. To curb possible low response rate by the respondents in this study, the researcher adopted follow-up strategy for the distributed questionnaires, those respondents with difficulty in filling the questionnaires were guided.

1.7 Organization of the Study

This study is organized into five chapters: chapter one has the introduction of the study, problem statement, main objectives guiding the study, significance of the study scope the study and limitation. Chapter two covers four main theories related to the study, review of empirical literature and conceptual framework in regard to main teams of the study are also detailed in this chapter. Chapter three present research methodology capturing details of sample design employed, data collection instruments, validity and reliability of study instruments, data collection and analysis methods and ethical consideration. Chapter four give detail discussion on results and analyses of data collected. Finally chapter five gives conclusion of the findings regarding the three outsourced functions: security, revenue collection and repair and maintenance. The chapter also gives recommendations as per the findings of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In this chapter, various theories as propagated by various authors of service delivery and strategic outsourcing are outlined. It also discusses various studies that have been done in the discipline of outsourcing by different scholars, Conceptual Framework and research gaps of the study are also established.

2.2 Theoretical Literature

This section tries to illuminate and discuss the various theories relevant to the study. The study was supported by five main theories: Agency Theory, Resource dependency theory, Resource-based View model, Transaction Cost of Economics and Core Competency Theory

2.2.1 Agency Theory

To address the problem of managerial agency Adam Smith (1776) in his work, *The Wealth of Nations* highlighted problem of managerial agency. Identifying the relationship between owners and managers as critical and central in any enterprise system and that agency conflicts could have negative economic in an organization. Agency theory is concerned with the study of the problems that arise between outsourcing organization and the vendor once the principle has entered into contract to delegate work to agent (Eisenhardt, 1989; Lassar and Kerr 1996).

By contrast, modern agency theory posits that principal-agent relationship should be as a result of efficient information and have risk bearing costs (Eisenhardt, 1989). As the the theory is not only significant for strategy organization governance but has also

dominated in accounting, finance operations management, information systems and other departments of economies.

Agency theory therefore provides a lens to the relationship between outsourcing organization and the vendor characterized by clear information on contract outcome uncertainty and incentives (Eisenhardt, 1989). Contract agreement is used to solve conflict by agreeing upon controls and incentives between the parties, by using contract as a process control, service delivery in service management in public context have improved. Furthermore, cost efficiencies have been realized due to process control measures in outsourcing context (Barlow, Roerich & Wright 2013; Pelkonen & Valovirta 2015). Agency theory is justified for mitigating potential risks through process control given that service quality risk is critical for any outsourcing relationship to succeed. The theory has also been applied in preparation phase of outsourcing for reconsideration of eligible vendors.

2.2.2 Transaction Cost Theory

Early ideas of Transaction cost theory came from Nobel Laureate R. Coase and later developed by Williamson. The theory provides the foundation to logic reason why firms exist by reducing transaction costs by weighing between in-house production and outsourcing to external providers. According to Williamson, (1985) these transactions costs comprise internal costs incurred in tendering process they include such costs as: internal costs of searching information, drafting and negotiating an agreement, and costs of safeguarding the agreement.

Porter (1990) notes the possibility that transaction costs related being influenced by environmental uncertainty, opportunism risks, bounded rationality and core resources

available. Consequently, these factors may increase the external transaction costs. Therefore, in such a scenario it may be more economical to retain the function in-house rather than outsource.

Previous studies have argued that outsourcing considerations in public sector have largely been influenced by policy rather than the concept of transaction theory and as a result negatively affected quality of service. Transaction cost has therefore gain relevance to an outsourcing consideration in public context from the perspective of process costs to ensure: competitive tendering process; mitigation of risks; management of transition phase and establishment of contract management practices.

2.2.3 Core Competency Theory

Proposed by Prahalad and Hamel (1990), Core Competency Theory was developed on the basis of resource-based theory. Simchi-Levi, Keminisky & Simchi-Levi, (2004), defined core competency as the collective learning in the organization on how to coordinate diverse production skills and integrate multiple streams of technologies. This theory suggests that firm activities should either be performed internally or externally (make or buy decision). Noncore activities are outsourced to specialized efficient suppliers as core competencies are fully utilized. Core competencies refer to the collective knowledge of the production system concerned in particular knowledge of procedures and how to best integrate and optimize them.

The concept of this theory has become popular among outsourcing researchers to test outsourcing decisions arguing that core tasks remains in-house. Vendor's competencies are assumed to be key factors that influence success of outsourcing

arrangement. An analysis of the vendor's competencies is, according to the Core Competencies Theory, the main factor that determines the success of an agreement.

Previous arguments on decision-making model during the preparation phase are based on the Core Competencies Theory, researchers aimed at improving competitiveness of the organization. Also, a research by Gottschalk & Solli-Sæther (2005), examining the phases of preparation, relationship management and vendor reconsideration, concluded that the Core Competencies Theory is one of the approaches that better illustrate the success factors of the outsourcing process.

2.2.4 Resource Dependency Theory

The theory states that firms don't have all the resources they need therefore, to some degree they depend on their external environment for resources (Pfeffer and Salanick 1978, and Pfeffer 1984). There are three core ideas of the theory: organizations have strategies to enhance their autonomy and pursue interests, social context matters and power is important for understanding internal and external actions of organizations. Organizations depend on multi-dimensional resources like labor, capital and raw material. They may not be able to come out with countervailing initiatives for all these multiple resources. Hence organizations should move through the principle of scarcity.

Pfeffer and Salanick (1978) come up with three factors that influence the extent of dependency organizations have on certain resources. These factors include the criticality or the importance of the resource to the organization, the scarcity of the resource and the control these organizations have on that resource. The strategic option

of an organization is determined by the environment according to this theory. Critical resources are those the organization must have to function.

Resource dependency theory has been under scrutiny in review and meta-analytic studies: (Hillman et al 2009), (Davis and Cobb 2010) and (Sharif and Yeoh 2014). They all indicate and discuss the importance of this theory in explaining the actions of organizations by forming interlocks, alliances, joint ventures, mergers and acquisitions in striving to overcome dependences and improve an organizational autonomy and legitimacy.

2.2.5 Resource-Based View

Resource-Based View theory emerged through Jay Barney's 1991 article "Firm Resources and Sustained Competitive Advantage." Though it is evident that the concept of RBV theory emerged earlier from 1930s and 1980s following the scholars; Birger Wernerfelt, Prahalad and Hamel, Spencer and Grant.

According to Barney & Hesterly (1996), resources and capabilities vary significantly across organization, and these differences are stable and inimitable. The theory therefore suggests that if firm's capabilities and resources are appropriately mixed and deployed they can create competitive advantage for an organization. Resource-based view in this study builds proposition that service organization lacking valuable, rare, inimitable capabilities to offer excellent service will seek external provider to overcome the weakness.

Critics say it is difficult to find a resource that is valuable, rare and inimitable. Also the fact that a firm can exploit advantageous resources and make profit in a highly

competitive environment is not true (Barney, J.B. 2001). The fact resources simply exist has been criticized.

Resource based View model has been used to explain preparation phase for outsourcing decision process by organization in identifying appropriate activities to be outsourced. The model has also ensured appropriate resources are in-sourced to complement available resources.

2.3 Empirical Review

Discussed below is literature review on relationship of service delivery on outsourcing security, revenue collection and repair and maintenance.

2.3.1 Effects of Outsourcing Security Services on Service Delivery

Private security provision is the enterprise where one organization provides guarding, among other services, to both private and public clients. Security firms are companies whose sole responsibility is to protect people and assets of their clients through patrols, guarding as well as checks and inspections. The relevance of private security organization increased with the dynamics of crime that led to the overwhelming of the police service. Five decades after independence, Kenyan security sector is yet to advance, having started in 1998, (SRIC, 2012) following emergence of threats such as increased urban crime and terrorism.

The current paradigm shift in many organizations such as Fortune 500 companies and smaller firms to “core competency” has led to outsourcing of support tasks to specialized efficient providers. The shift in paradigm to “core competency” has necessitated the outsourcing in functions that are personnel-oriented like security

provision. Survey by (Koingera 2014; Maku & Alvaro 2013; Masaba & Pule 2015), confirm that outsourcing improves service delivery because it allows organizations to redirect competencies the core processes of their production. Similarly, literature agrees that outsourcing security services decreases organizational risks because the burden of worrying is transferred to the security firm through a contract (Muchai 2010; Mkutu & Sabala 2008).

Additionally, outsourcing security support function is cited to assist in cutting down operational cost in organizations (Murunga 2011 & Kimosop 2007). Competition among service providers offer an opportunity for organizations to outsource services competitive rates hence value for money. In this sense, outsourcing security function lowers cost of overall production. This then can be trickled down, in terms of price of goods and services offered, to the consumers.

Outsourcing of security services is cheaper in the long run. While it may be seen as if the cost of contracting security services to be the same as when it is not outsourced, other overhead costs are eliminated with outsourcing. The cost of supervision; insurances such as anti-burglary; overtime wages; uniforms; recruiting and background checking expenses; training; leave and retirement benefits; among others serve to reduce a company's long-term and overall expenses. Additional costs can include administration personnel for payroll services and depreciation of equipment.

Despite justification for privatizing security functions, extensive research has found out some risks that can be detrimental to the organization. For example, organizations can outsource services form the companies, they remains accountable for the perceived service delivered by vendors. This has led to enormous failure in public sector (Muchai 2010; Kimosop 2007 & Murunga 2011). For instance, during

the London Olympics, public trust was lost when the government failed to effectively manage its security vendor G4S, which was contracted to undertake the security coverage for the Games. When G4S could not fulfill its contractual obligations to provide adequate security coverage at the event, despite an increase in costs from £86 million to £284 million, the government had to eventually draft in troops at the 11th hour to make up for the shortfall. Given that the UK government is accountable for ensuring that the sports event remains safe and secure for all the attendees, including a number of world leaders, this security debacle could have potentially caused huge embarrassment to the UK on the international stage.

Another risk associated with outsourcing is the loss of control and ownership of crucial business strategy (Karia 2014; Masaba &Pule 2015 and Maku & Alvaro 2013). Outsourcing, in a nut shell, is giving up control of some functions and responsibilities. As an organization, some of your culture that has been cultivated for long may be lost. Consequently, the service provider may not share the level of commitment, attitudes and values with the organization. This may lead to customers' suspicions and complain. As Berinato (2001) argues, it is impossible to have external workers to work with zeal and align themselves to the goals, mission, and culture of the customer organization like the internal staff.

2.3.2 Effects of Outsourcing of Revenue Collection Services on Service Delivery

Revenue collection is a very sensitive function and the debate on contractual arrangements is has been an endless. This is because revenue is a lifeline of every organization; it the reason why organization operate. In water sector, WASREB has enumerated revenue collection efficiency as one of the Key performance indicators. According to WASREB report 2016, poor revenue collection is listed as one of the

major administrative challenges facing water service providers. Most water service providers do not comply with set standard in as regard to the revenue collection efficiency: they collect below the 95% of what is due for collection every billing cycle. This is associated with the evasion and resistance by customers, corruption and embezzlement of revenues by disgruntled staff and political pressure on the local consumers to relax on revenue payment.

Collection of revenue through private agents reduces the administrative costs that the organization uses. This is because the employees who handle the money belong to the agents. Outsourcing revenue collection to special agents has also supported for creating adequate time for the organization to in-house employees to engage in improving customers' needs (Kiser & Baker, 1994). Furthermore, in revenue collection - due to the season aspect, a private agent provides a flexible labor input compared to full time staff under-utilized in low seasons. For example, According to Katera, (2008) the company contracted by Mwanza City council (MCC) to collect revenue in 2008 at Mwaloni fish market engaged up to 25 collectors during the peak revenue collecting season and reduced the number to 10 during low season. This is not feasible in a situation where the organization employs staff on permanent basis.

Another argument for outsourcing revenue collection in organizations is the fact that it maximizes revenue collection. In most instances, payment of the private agents is based on a percentage of revenue collected. To maximize on their earnings, the agents will endeavor increase its profits by increasing revenue collection. This benefits the organization because it increases its collection efficiency (Rajabu, 2013).

According to Mabhuye & Rajabu (2013), Private revenue collectors are less likely to be engaged in corrupt activities as compared to the employees of the organization. And even corrupt practices and embezzlement of revenue is detected, the private agent is made to pay as it will be stipulated in the agreement.

Liability of an organization will be lowered through revenue outsourcing, risks associated with cash handling is shared with the private agent (Mabhuye, 2013). Cash handling is associated to a number inefficiencies ranging from thefts to robberies. Private revenue collectors have however developed systems and structures; technology to enable online payments a system less prone to robbery and misappropriation.

Despite the acceptable comments, other studies confirm that outsourcing revenue collection is an expensive practice because it is only shifts/replicates costs from the organization to a service provider. For instance France after outsourcing paid for 75000 people, a number of manpower that is exactly equal to what the country was paying when it did the collection by itself. Additionally, the net revenue collected by outsourcing, after deduction of agents' administrative fee may not be of any significant difference

Previous studies have also raised concerns over long-term effects of privatizing revenue collection with the focus on efficiently collecting revenue. According to Rajabu, (2013) survey, there is likelihood of increased social unrest especially when private revenue collectors violate human rights during revenue collection. De Vries (1976) decries that the social unrest by the Dutch republicans was associated with the

harsh treatment that they were subjected by the tax collectors. Outsourcing revenue collection function can therefore affects service delivery because some vendors may exaggerate bills for self-interest. The sensitivity of the function requires close monitoring otherwise private agents might negatively impact on the image of a firm.

2.3.3 Effects of Outsourcing of Repair and Maintenance Services on Service

Delivery

Maintenance is effort and activities that is put in place so that system's equipment can work properly as expected. The maintenance function is critical to organizations' ability to appropriately serve its clients. Over the past 20 years, maintenance has changed, perhaps more so than other disciplines. Complex equipment, new maintenance techniques, automation and increase in the number and variety of assets are just a few examples that drove these changes.

Literature presents that the main objectives for maintenance include, but not limited to ensuring the quality rate and performance of equipment and facility; guaranteed health and safety of users of the equipment and facility, extend the useful life of items and components; improve machine and equipment efficiency and reliability; ensuring readiness of equipment and tools needed for emergency use; and ensuring compliance to statutory requirements (Al-Mutairi & A-Hammad, 2015). Additionally, poorly maintained equipment is less likely to produce products of consistent quality.

The need for efficient production of goods and services has led managers to come up with appropriate maintenance strategies (Campbell, 1995). However, due to complexity in terms of technology and the pressure to efficiently produce in recent

years, firms have been forced to outsource their maintenance function (Parida & Kumar, 2006). Maintenance department is crucial in water sector to ensure non-interruption of water supply and reduction of non-revenue water. Maintenance department is also critical for water companies to ensure optimum use and efficiency of automobiles.

Maintenance technicians have to learn new skills to be ready to effectively address equipment problems. Training of technician is important to update their skills with changing technology. However, during difficult times, training budgets are among the first ones to be reduced and maintenance training budgets are most likely cut or frozen consequently affecting service rendered. Previous studies have justified maintenance outsourcing for ability to offer quality trained experts. According to Al-Mutairi & Al-Hammad, (2015), training of technician is important to update their skills with changing technology. However, during difficult times, training budgets are among the first ones to be reduced and maintenance training budgets are most likely cut or frozen consequently affecting service rendered.

Previous surveys carried by the Plant Maintenance Resource Center reports justify the outsourcing of maintenance services. Among the reasons provided include, but not limited to, increased focus on in-house personnel on “core” activities; increasing labor productivity; reducing maintenance costs; keeping pace with rapidly changing technology; improving work quality; reducing influence of trade unions; improving environmental performance; increasing access to specialist equipment; obtaining specialist skills not available in-house; improving equipment uptime/performance; and reducing risks (Al-Hammud, et al. 2010).

Equipment and infrastructural facilities that are not properly maintained are prone to produce products of inconsistent quality (Swanson, 2001). Additionally, organizations do not need to hire specialist on full time basis because they are very expensive. Outsourcing their services is obtainable at lower cost. The services of these outside experts can affordably provide necessary technological improvement that will increase efficiency and reduce the overall costs of production (Ahmed, 2015).

Despite the claimed justification for maintenance outsourcing several studies have raised concerns over transactional costs. In manufacturing organizations, it is very difficult to outsource maintenance services because its budget makes the biggest ratio. The repair and maintenance related costs are estimated to twenty-five percent of overall operating cost (Lau & Zhang, 2006). In mining and electrical power, maintenance related costs might surpass operational cost (Campbell, 1995; Swanson, 2001; Lau & Zhang, 2006).

These costs include vendor management costs which are incurred throughout the life cycle of an outsourced function in order to monitor vendors and periodically re-negotiate their contractual obligations. Such costs tend to be higher when services have outcomes that are difficult to measure. For example, a number of Kenyan local public agencies had to invest in additional resources such as technology and manpower to provide greater oversight of their contractors' performance when in the report of Auditor-General 2017 found a number of monitoring lapses during their audit of these agencies.

Outsourcing is a powerful tool in as far as cost and efficiency of production systems are concerned. However, organizations need to maintain a grip of their production activities that are carried out by the contractor(s). This allows the maintenance manager to oversee other core areas that contractors provide, thus spreading the strategy across every indirect department to ensure achievement of expected results.

Previous studies have also found that losing control over operations had one of the largest impacts on the outcome of maintenance outsourcing. According to Al-Hammud & Al-Nehim, (2010) survey, of 91 outsourcing effort, loss of strategic control was a key differentiator between outsourcing success and failure. The problem is exacerbated when public agencies outsource services to large firms that are able to negotiate and dictate the terms of future contracts in ways that are loaded in their favor. Over time, this may potentially reduce market competition and even provide the service provider with an advantage that allows it to entrench its position and even become a monopoly. The absence of competition may result in higher costs and poor service. For example, a report published by Social Enterprise UK, the national membership body for social enterprises in the UK, highlighted that the adult social care market in the UK has been dominated by large private providers while social enterprises are being pushed out of public sector markets. This situation, according to the report, has not only driven down the quality of services delivered but also resulted in lower staff wages, leaving workers and their families in poverty.

According to 2013 report by the Institute of Public Procurement, an international body for procurement, the risk of losing valuable institutional knowledge and expertise held by public employees when a public service is outsourced is huge. With

outsourcing becoming increasingly prevalent, public agencies are losing vital professional knowledge and core competencies. Over time, government technical departments may lose control over various aspects of outsourced activities, which consequently result in weak control, increased costs and reduced accountability for services (Al-Mutairi & Al-Hammad, 2015). This erosion of knowledge and expertise could arise because of an incompetent approach to outsourcing, where decisions are often made in an incremental and piecemeal manner. As a result, governments may not realize that they are gradually surrendering their expertise and capabilities to external entities. For instance, in Australia, the Centre for Policy Development, a public think tank, as well as the Australian Procurement and Construction Council Inc. (APCC), both pointed out to the loss of public sector expertise in public works. As such, outsourcing of public works has become more costly since private companies retain the experience from public projects and could “resell” such expertise back to the government at higher costs

2.4 Research Gap

Though the concept of outsourcing has been widely studied, significant studies have been generalized. Some scholars have focus on its benefits. For example: Kohler, 2004; Manning, 2013; Venkatesha & Mohanty, 2014 and Pule & Masaba, 2015, carried a study to analyze benefits of international outsourcing. Study findings revealed an increasing use of internationally traded inputs by firms led to reduction of overall production costs while leading to superior quality. While the above studies generally examined the benefits of international outsourcing, no known study has tried to empirically link outsourcing to service delivery.

Further review of literature also confirms risks of outsourcing. Studies by (Berinato, 2001; Muchai, 2010; Rajabu, 2013 Karia, 2014 and Al-Hammud, 2015), revealed that the major risk incurred by outsourcing organizations is the inability to identify hidden costs at decision making phase. Also a study conducted by Al-Hammud (2015) on maintenance outsourcing found that getting right expertise may be a challenge. The study concluded that it can often be difficult to find a vendor with a proven team of experts. As such, the quality of services may suffer (Wright, 2003). Whether the same risks are experience in water sector remain vague.

Evidenced from the above empirical review little has been documented concerning the effect of outsourcing on service delivery. To fill the research gap, this study will attempt to assess the effect of security outsourcing, revenue collection privatization and maintenance outsourcing on service delivery in Kenyan water sector. Furthermore, most studies in the area of outsourcing have taken a wide scope by employing survey research design. The current study however closely examined a case of KEWASCO which gave in-depth understanding of outsourcing strategy on service delivery.

2.5 Conceptual Framework

Thomas, (2010), defines conceptual framework as a set of broad ideas and principles taken from fields to structure a subsequent presentation. Conceptual framework aids a researcher to develop awareness and understanding of the situation under scrutiny so as to communicate the same in a broad perspective.

Study variables are highlighted and their underlying relationships illustrated. This study, independent and dependent variables are discussed. Independent variables are

those variables which are systematically varied by the researcher. Dependent variables however, are those variables whose values are presumed to depend on the effects independent variables they are influenced by independent variables.

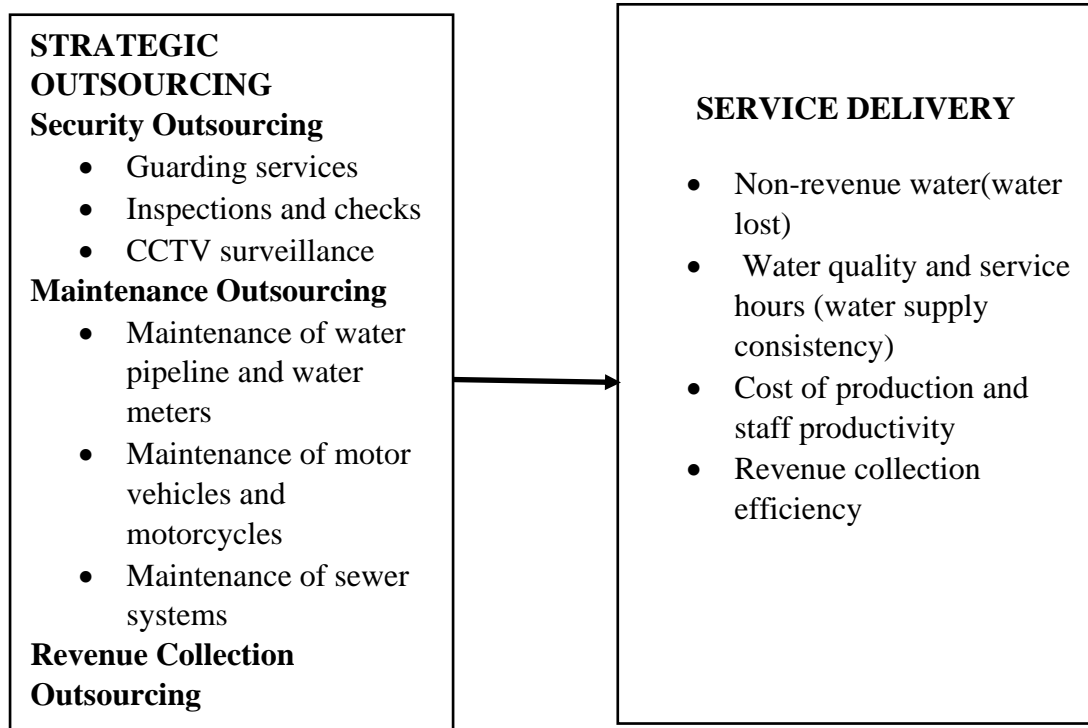
In this study researcher will assess if outsourced functions: security, revenue collection and maintenance (independent variables) has effect on service delivery (dependent variable) measured by service hours, operations costs, level of non-revenue water, quality of water supplied, water connections, sewerage connection and revenue collection efficiency in water sector.

It is illustrated graphically in figure 2.1 below

Figure 2.1 Conceptual framework

Independent variable (Outsourcing)

Dependent variable (service delivery)



Source: Researcher (2019)

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter provides specific account on the research methodology employed. It describes the whole research process adopted which includes the research design; the target population, sampling procedures and sample size; research instruments, their validity and reliability; data collection; data analysis methods and ethical considerations.

3.1 Research Design

This research was undertaken by employing descriptive research design. Saunders, (2012) describes it as a layout meant to demonstrate a preference for commencement with review of previous studies. The researcher gathers data, analyze collected data, present and interpret information for the purpose of clarity. It involves an investigative study to ascertain, explain and describe characteristics of variables associated with a situation under scrutiny.

The design was appropriate in investigating the effect of strategic outsourcing on service delivery in KEWASCO. Researcher assessed whether strategic outsourcing of security, revenue collection and maintenance (independent variables) had effect on water sector key performance indicators/service delivery; consistent supply of water, low non-revenue water, low operation costs, revenue collection efficiency, water and sewer service coverage (dependent variables)

3.2 Study Population

Mugenda & Mugenda, (2003) describe population, as a well-defined set of individuals/subjects with common observable features being investigated. They further define target population as, all members of a real set of events or objects to which the study generalizes hypothetical research findings.

The study population for this study comprised of all the KEWASCO stakeholders (all KEWASCO customers, all KEWASCO employees and all the employees of the water department at Kericho County Government). According to WASREB 2018 report KEWASCO has 134 employees and serve a population of 17,086 customers through 20 operational zones. However due to limit in time and finances, one of the company's operational zone was picked from 20 areas of operation. According to county organizational structure 12 employees were under water sector department. The mode of operation by the company staff is specific and rotational which makes it possible for every staff to serve in all the 20 zones. Total target population for this study comprising of customers and KEWASCO and county water representatives was 17232.

3.3 Sample Design

A sample is a subset of a population with similar characteristics as the population in which a researcher makes general inferences regarding the population parameters (Saunders, Lewis & Thornhill, 2012). For this study as Mugenda & Mugenda (1999) argued, a range of between 10-20% was drawn for generalizations of the study. To arrive at appropriate study sample, the researcher adopted purposeful sampling, clustering and stratified random sampling. Where, purposeful sampling was first applied on KEWASCO staff and employees of the water department of Kericho

County Government as shown in table 3.1 below. Purposeful sampling allowed the researcher to reach those respondents in the organization deemed to have requisite information.

Table 3.1 below demonstrates how the researcher purposefully reached to a sample of 8 from the 146 target population of employees of KEWASCO together with those of the Kericho county government department of water. KEWASCO has 134 employees while the Kericho county government department of water has 12.

Table 3.1: Sample size for KEWASCO employees and Kericho County Government water department

Organization	Target population		Sample size	
	Department	No.		No
KEWASCO	Commercial and finance	42	Commercial and finance manager	1
	Technical services	11	Technical services manager	1
		52	Operations and maintenance manager	1
	Human resource	3	HR manager	1
	Customer care	15	Customer services manager	1
	Procurement	4	Procurement manager	1
	Information Communication and Technology (ICT)	7	ICT manager	1
County government of Kericho	Department of water	12	Water director	1
Total		146		8

Source: Researcher (2019)

Consequently, clustering and stratified random sampling was applied on KEWASCO customers. Clustering is a technique essentially used when a sample size is large and geographically dispersed.

According to WASREB report 2018, KEWASCO serves 17,086 customers through 20 operational zones. However, one operation zone characterized by its size and

diversity was chosen with the application of clustering sampling technique. Ainamoi zone was deemed appropriate due to its large size of 1664 customers and its diverse nature, characterized by different categories (strata) of consumers it serves; domestic, commercial, learning institutions and health facilities. Random sampling technique was then applied to arrive at a representative study sample size of (10%) from each stratum. It is elaborated in the table 3.2 below.

Table 3.2: Sample size for the customers

Category (strata)	Target population (N)	Sample size (10% of N)
Domestic consumers	1450	145
Commercial consumers	166	17
Learning institutions	20	2
Health facilities	28	3
Total	1664	167

Source: Researcher (2019)

Therefore, the total sample size for the study was, $8+167=175$

3.4 Data collection instruments

The research study used both primary and secondary sources of data. The main techniques employed in collecting primary data, included structured questionnaires and key informant interviews. Apart from the primary data sources, the study used extensive secondary data; which involved review of government reports, books, periodicals, journals, newspapers and magazines on water sector in Kenya and other states. Secondary data was precursor to the primary data collection exercise. Secondly, it was helpful in furnishing background fabric and context to the primary data. Also, secondary information was used to strengthen findings and draw conclusions.

The questionnaire ensured that the research objectives were translated into specific questions with both open and closed ended questions. It had brief introduction paragraph and a plea to the respondents to fill and return the questionnaire. The researcher also made the questions short and simple to ensure high response rate. Questionnaire instrument was reinforced by Likert-scale questionnaire, which was constructed with a view to determine the level of agreement on serviced received by customers (strongly disagree, disagree, neutral, agree and strongly agree) in a statement.

To establish a reasonable flow, the questionnaire of the study was divided into five sections: Section 'A' took care of the general information; section 'B' asked questions related to the effects of outsourcing of security services on service delivery at KEWASCO; section 'C' dealt with the effects of outsourcing revenue collection on service delivery at KEWASCO; section 'D' addressed the effects of outsourcing repair and maintenance on service delivery at KEWASCO and lastly, section 'E' dealt customer perception on service delivery at KEWASCO

Interviews with key informant were scheduled to give their views of outsourcing and service delivery at KEWASCO. Interview guides were prepared to aid in collection of crucial information from target respondents. Targeted interviewees included: KEWASCO employees, and the employees from the department of water at the county government of Kericho. These are mainly the respondents that were reached through the application of purposive sampling as they were deemed to have deeper understanding on situation under study.

3.5 Data Collection Procedure

To avoid suspicion by target respondents during the study, permission from relevant authorities was sought to conduct the study. After approval by the university supervisors the researcher, through a letter sought permission from National Commission of Science Technology and Innovation (NACOSTI). The researcher then contacted the management of Kericho Water and Sanitation Company (KEWASCO) explaining the purpose of the study, with a view of seeking permission to collect data.

Secondly, attention was put on ensuring confidentiality throughout the study. Also, care was taken to ensure voluntary participation of respondents without any form of coerce and provided informed consent without being subjective. During interview, interviewees were encouraged to seek clarity on questions that appeared vague to minimize questions abscondment.

Questionnaires were self-administered by the researcher personally, through drop and pick later technique. Self-administered questionnaires gave respondents privacy and enough time to answer the questions and follow up ensured high response rate. Secondly, face-to-face interviews were scheduled for key informants of the study with help of interview guide and in-depth information of the subject matter was sought. This enabled researcher to elicit more enriched responses from the employees and water officials.

3.6 Validity and Reliability of Data Collection Instruments

3.6.1 Validity of Research Instruments

Mugenda & Mugenda (2003), describe validity as the degree at which results obtained from data analysis represent the actual phenomenon under study. First, content

validity of research instruments was established ensuring all the objectives and questions of the study were included. Secondly, expert input was sought to assess the relevance of research instruments against study objectives. To further improve and determine validity of research instruments, a pilot study sample was carried with 15 questionnaires in a different operational zone of KEWASCO other than Ainamoi. Pilot study cleared ambiguities ensuring instruments measured study intentions. The researcher also had a chance to mitigate ways to counter problems during actual data collection period.

3.6.2 Reliability of Study Instruments

Kontari, (2004) defines instruments reliability as the ability at which research instruments yield results consistently under similar conditions. Research instrument is therefore reliable if same results are yield after repeated trials. Reliability of the instruments was established through test re-test technique, where reliability index was noted before actual data collection commenced. Pilot testing conducted involving 50 respondents passed reliability test, where consistency of responses was examined with secondary data. The Karl Pearsons Moment Correlation Coefficient was adopted to test reliability of the study instruments. The formula is given as;

$$r = \frac{\sum_{i=1}^n (X_i - \bar{X})(Y_i - \bar{Y})}{\sqrt{\sum_{i=1}^n (X_i - \bar{X})^2} \sqrt{\sum_{i=1}^n (Y_i - \bar{Y})^2}}$$

Where r = reliability coefficient

n = Number of respondents

x = Total score of the test administered

y = Total score of the retest administered

Similar results of reliability coefficient $r = 1$ was obtained from test-retest scenario. Since there were variations on the views respondents, different perceptions were given considerations as there was view that most responses could be influenced by different attitudes.

3.7 Data Analysis and Presentation

After editing and sorting out the questionnaires for completeness and coding, analysis of the data was done. Qualitative data was placed into themes, categories and patterns for analysis. Descriptive statistics was used to analyze the data to give the percentages (%), frequencies (f) and mean. According to Cooper and Schindler (2001) descriptive statistics reveal characteristics of an array of data and enable the researcher to use few indices or statistics to meaningfully describe the phenomena under investigation.

Quantitative data was also acquired and analyzed in this study. Figures and numbers that could be used to measure service delivery were acquired from the respondents and placed in tabular forms. Percentages and means were computed using computerized software; Statistical Package for Social Sciences (SPSS). Conclusion was drawn showing the relationship between outsourcing and service delivery with the use of inferential analysis. Inferential statistics employed included, Chi-square which tested the hypotheses of the study and regression that established the statistical relationship between the variables.

Below is a regression analysis model employed to determine the relationship between service deliver at KEWASCO and the three variables $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3$

Where:

Y = Service delivery at KEWASCO

β_0 – Constant

X_1 – Outsourcing of security services

X₂ – Outsourcing of revenue collection services

X₃ – Outsourcing of repair and maintenance services

3.8 Ethical Consideration

The research ensured that all respondents were given a free will to participate and contribute voluntarily to the study. In addition, the researcher made sure that necessary authorities were consulted and permission granted and due explanations given to the respondents before commencement of the study. Participants were given the assurance that their identity will remain anonymous in order to uphold privacy as well as confidentiality. Participants were given adequate explanation that the information gathered was only to be used for the purposes of the study.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter provides the analysis, presentations and discussions the study findings on the effect of strategic outsourcing on service delivery at KEWASCO as per the three study objectives. It has four sub headings: general information of the respondents; effects of strategic security outsourcing on service delivery; effects of strategic revenue collection outsourcing on service delivery and finally, effects of maintenance outsourcing on service delivery.

4.2 Response Rate

The study was carried in Ainamoi zone, one of KEWASCO operational zones. A sample size of 175 respondents from different customer categories and water officials was selected. However, 167 respondents participated giving a response rate of 96.4%. The impressive response was as a result of frequent follow-up on issued questionnaires and booking of appointments with the interviewees.

Mugenda and Mugenda (2003) assert that more than 70% response rate is very good, 60% rate considered good and 50% is adequate. Based on the recommendation by the scholar, the study concluded that the response rate of 96.4% for this research was “very good” and therefore a good basis of this study report.

The study targeted KEWASCO management staff under the purposive sampling category. From this technique, the researcher was able to access and interview eight officers from both KEWASCO and the water department of the county government of Kericho. Therefore, the 8 in addition to the customers reached made a total of 167

respondents reached by the study. Table 4.1 below, shows the distribution of the customer respondents reached by the researcher.

Table 4.1: Response rate of customer respondents

Customer category	Targeted Sample	Responded
Domestic customers	143	140
Commercial customers	17	14
Health institutions	4	4
Institutions of learning	3	3
Total	167	161
Percentage	100%	96.4%

Source: Researcher 2019

4.3 General Information

General of the respondents was obtained by looking at the following variables; level of education, duration in the current position, duration of outsourcing policy at the company.

4.3.1 Level of Education

When respondents were asked to state their highest level of education, they gave their responses that were tabulated as shown in the table below.

Table 4.2: Level of education

S/No.	Level of education	Percentage (%)
1	Undergraduate and above	52
2	Diploma and certificates	30
3	Secondary education and below	18
	Total	100

Source: Researcher 2019

As depicted in the table above, it was established that majority (52%) had undergraduate degree, (30%) had diploma and certificate while (18%) had secondary education or below.

4.3.2 Duration of Employee at Current Position Held KEWASCO

In relation to the length of service in the current position held by the employees at KEWASCO, the sampled employees were asked to state their years of service served in the company.

Table 4.3: Duration of current position

S/No.	Duration of current position (years)	Percentage (%)
1	6-10	55
2	2-5	35
3	<1	10
	Total	100

Source: Researcher 2019

From the results tabulated above, it was established that a majority of 55% had worked for 6-10 years, 35% having worked for a maximum of 5 years while only 10% had worked in the organization for less than 1 year. Keen examination of the findings indicates majority 90% of managers had worked at management level for a period above 5 years in KEWASCO. Results therefore imply that most of the staff had worked long enough and were aware about effect of strategic outsourcing on service delivery.

4.3.3 Effects of Outsourcing Security Services on Service Delivery

The study sought to find out whether outsourcing security services at KEWASCO has any effect on service delivery. In order to solicit information to answer the objective, the respondents were asked to indicate various impacts of security on service delivery.

An overwhelming majority of the staff respondents (99%) indicated that outsourcing security services had positive impact on service delivery at KEWASCO. This prompted the researcher to find out how outsourcing security had benefited KEWASCO, and the following were the reasons indicated by the employees

4.3.3.1 Low cost of production

Majority of the employees (75%) agreed that outsourcing security services enabled the company to lower overall cost of production, as the company was able to source lowest bidder. The main gain by KEWASCO in outsourcing security services laid on the reduction of operational costs related to direct employing as opposed to getting external employees from other companies.

One of the respondent explained that, a full time employee normally requires additional costs such as employee taxes, vacation, life assurance, pension scheme payment benefits, overtime, annual leave pay and salary increment. Also, it was learned that supportive costs required when recruiting internal security personnel. Supportive costs include: background checks, training, uniforms, equipment, and sustainment. Such costs are avoided with the outsourcing of security services. An outsourced security firm provides all of these needs to its employees, normally at a steady and much lower budget. This is in agreement with the submissions of Murunga (2011) who argues that outsourcing security services cuts down operational cost.

4.3.3.2 Staff productivity

A majority of the staff members (75%) agreed to the fact that outsourcing of security services enhanced staff productivity in KEWASCO. As it was noted that outsourced guards are more productive and skill intensive as compared to internal security personnel. This concurred with the literature review whereby the increasing use of

outsourced services results in a direct boost in productivity for the plant and the local plants involved in multi production stages mostly outsource international inputs because of their availability at lower costs (Kohler's, 2004).

4.3.3.3 Indirect benefits

The main gain of KEWASCO in outsourcing security services laid on the reduction on operational costs related to employing directly as opposed to getting external employees from other companies. However, there are various other outsourcing benefits that enabled KEWASCO to achieve quality service including: creating a capacity for innovation, enhancing change from the norm and improvement of the company to depict a corporate look. It was also observed that introduction of private security guards has enabled staff at technical department to concentrate on water treatment plants ensuring consistent supply of quality water in the county.

4.4 Effects of Outsourcing of Revenue Collection Services on Service Delivery

The relationship between revenue collection and service delivery was one of the specific objectives for this study. The researcher posed questions to investigate how respondents perceived service delivery after privatization of revenue collection. A majority of managers (89%) agreed that outsourcing revenue collection services had improved service delivery directly and indirectly.

4.4.1 Cost of production and staff productivity

From the study findings it was noted from key respondents that the cost of production had been lowered particularly in reducing labour costs. It was noted before outsourcing revenue collection a big number of staff would go around visiting customers and collecting money, and the task was tedious and expensive lowering the

productivity of employees. However, outsourcing revenue collection to special agents has created adequate time for the in-house employees to engage in improving customers' needs.

It was also noted that staff productivity had been improved. Employing experts to collect revenues allowed staff at finance department to compile accurate financial reports for quality policy decision by the management. With adoption of private revenue collectors, payment accounts was automatically updated, this in return provided crucial data for commercial department to come up with accurate reports. The county government confirmed this fact that, KEWASCO financial reports were available which aided in making of budget at county level.

4.4.2 Revenue collection efficiency

Revenue collection efficiency had been achieved as noted by 72.6% of the respondents of the study. From the study findings accessed through document review, it was noted that since KEWASCO outsourced revenue collection services, the company's collection efficiency had improved from 79.7 % to 92.3%. A senior employee at the revenue office noted that, When KEWSACO gave the work of revenue collection to banks that utilize their mobile banking platforms, the customers have been able to settle their water bills at the comfort of their homes.

Additionally, it was noted that previously when KEWASCO collected revenues internally, many cash handling risks were encountered. According to Mabhuye (2013), the liability of an organization will be lowered through revenue outsourcing, risks associated with cash handling is shared with the private agent. With the

introduction outsourcing, these risks had been reduced. As one of the manager at the finance department notes, the company used to keep money in offices exposing lot of risks. However, this risk was instantly reduced when the company outsourced revenue collection.

The company employees from the commercial department not that because revenue collection agents are paid on commission the strive so much to collect as much as possible. This is in synch with the literature presented. Rajabu, (2013) argues that, to maximize on their earnings, the agents will endeavor increase its profits by increasing revenue collection. This benefits the organization because it increases its collection efficiency

Also, the embezzlement of money by rogue revenue collectors, which led to customer complaints, completely ceased when the company outsourced revenue collection services. This is in agreement with the sentiments of Mabhuye & Rajabu (2013) that Private revenue collectors are less likely to be engaged in corrupt activities as compared to the employees of the organization. Respondents also agreed that when customers pay through their mobile banking applications, their accounts are immediately adjusted, a point alluded by most of the customers.

Resolution of customer complaints is one of the indicators to quality service delivery in the public service. The researcher used five measurement levels which were ‘strongly disagree, disagree, neutral, agree, strongly agree’ which measured the level of service offered by the organization. The KEWASCO customers expressed their feelings as demonstrated in the following tables:

Question: It is currently easy and convenient to pay for KEWASCO services

Table 4.4: Ease and convenience of payment of KEWASCO Services

Response Mode	Rating	Frequency	Percentage (%)
Strongly disagree	1	6	3.7
Disagree	2	18	11.2
Neutral	3	10	6.2
Agree	4	84	52.2
Strongly Agree	5	43	26.7
		161	100

Source: Researcher 2019

From the above observed frequencies, a weighted mean of 3.87 was calculated. This mean therefore indicates that the perception of the respondents agree to the statement that it is easy and convenient to pay for the KEWASCO services.

The above observed frequencies was also subjected Chi-Square at a confidence level of 95%. The calculated Chi-Square value turns out to be 129.84, which is much higher than the critical value (X^2) which is 9.488 at a degree of freedom of 4.

This confirms the ease and convenience of payment for KEWASCO services such as water bills by the customers.

To further ascertain efficiency in the mode of payment, the researcher posed a question to find out whether customers were satisfied with how the company updated their accounts after making payments. These were the responses as per table: 4.5 as shown below.

Question: Is your account is credited immediately you make payment of services

Table 4.5: Crediting of accounts after payments of services

Response Mode	Rating	Frequency	Percentage (%)
Strongly disagree	1	4	2.5
Disagree	2	8	4.3
Neutral	3	20	12.4
Agree	4	44	27.3
Strongly Agree	5	85	52.8
		161	100

Source: Researcher 2019

The presentation of results from the above table shows that a weighted mean of rating of 4.23 was achieved. This mean indicates that the respondents perceptions lie between agree and strongly agree to the fact that their accounts are credited immediately they make payments for the services consumed at KEWASCO.

The above customers' response was also subjected Chi-Square at a confidence level of 95%. The calculated Chi-Square value turns out to be 138.14, which is much higher than the critical value (X^2) 9.488 at a degree of freedom of 4.

Finding confirmed that KEWASCO credits most customer accounts immediately after receiving payments.

4.5 Effects of Outsourcing Repair and Maintenance on Service Delivery

KEWASCO being a water supply and sanitation organization, investigating efficiency at its technical department is important as far as service delivery is concerned. The researcher sought to find out whether the outsourcing maintenance and repair services affect service delivery. To solicit information the researcher posed a question to find the benefits of outsourcing maintenance and repair services. A majority of 97% of

management team agree that adoption of outsourcing policy at technical department yielded many benefits.

Amongst the issues enumerated by the respondents included: cost of production and staff productivity; quality water supply and non-revenue water.

4.5.1 Cost of production and staff productivity

From the study, it was noted that majority (65%) of the respondents agreed that overall cost at technical and engineering department of the company had significantly reduced, particularly crucial training costs. One staff respondent further explained how maintenance outsourcer had brought additional training needs to internal staff at a lower cost. According to one employee of KEWASCO, the maintenance outsourced provider has internal training programs that continuously improve and diversify the skills of the company technicians. The staff further explaining that training was not limited to technical aspects only, as it also covered business matters specific to the organization.

The outsourced provider relies on multi-skilled technicians. A multi-skilled workforce possesses a range of skills that allow them to participate in more than one work process. In practice, these maintenance technicians work across craft boundaries. Therefore, the service provider is able to handle complex tasks like bulk meter servicing, pump maintenance and main trunk line maintenance at a relatively lower cost. This argument agrees with that of Parida & Kumar (2006) who aver that due to complexity in terms of technology and the pressure to efficiently produce in recent years, firms have been forced to outsource their maintenance function

Additionally the multi-skilled technicians who are able to carry out many tasks are more affordable than when the company hires someone on full time to perform the same duties. As Ahmed (2015) explains, the services of the outside experts can affordably provide necessary technological improvement that will increase efficiency and reduce the overall costs of production

4.5.2 Consistency supply of quality water

Consistency supply of quality water was one of the parameter of service delivery in this study. Respondents noted that outsourcing maintenance and repair services have significantly improved the quality of water produced. This is synch with the argument of Swanson (2001) who claims that outsourcing of maintenance and repair services improves the conditions of equipment and infrastructural facilities leading to consistent quality services.

The researcher therefore, sought to know the impact of outsourcing maintenance function on service hours and water quality and the findings were as in table 4.5 below:

Question: Does KEWASCO serve you consistently with clean water always

Table 4.5: Consistency of Quality clean Water

Response Mode	Rating	Observed Frequency	Percentage (%)
Strongly disagree	1	5	3.1
Disagree	2	21	13.0
Neutral	3	38	23.6
Agree	4	91	56.5
Strongly Agree	5	6	3.7
		161	100

Source: Researcher 2019

From the study findings, as shown in the table above, it is evident that the weighted mean of the response rating is 3.5. This is tending towards agree from the neutral response mode. This means that customers of KEWASCO agree that the company serves them consistently with clean water.

The above distribution of respondents was also subjected Chi-Square at a confidence level of 95%. The calculated Chi-Square value turns out to be 156.61 a much higher than the critical value (X^2) 9.488 at a degree of freedom of 4.

Results confirm that KEWASCO serves its customers with clean quality water consistently.

4.5.3 Non-Revenue Water (Water Loses)

The researcher notes that water loses reduced relatively since the outsourcing of maintenance services was done. One of the senior managers at KEWASCO noted that water loses has reduced from 48% to 25% over the last five years. Another respondent from the commercial department agreed that the company had saved approximately 5 million over the last five years.

KEWASCO staff from the technical department noted that outsourcing the repair and maintenance service has brought in expertise skills necessary to reduce water loses. As agreed by a senior staff in the technical wing of the company, that contractor has superior tools and equipment to detect, excavate and repair leakages and bursts. What could have taken three days to handle now takes a few hours. Another employee explained that initially KEWASCO did not have the capacity to detect underground leakages until maintenance services were outsourced.

Additionally, the company lacked the capacity to service consumer as well as bulk water meters. When consumer meters are stuck or have errors, the company registers high rates of non-revenue water. The water losses through inaccurate metering is called commercial water losses. One of the KEWASCO employees working in the commercial department said that when the maintenance services were outsourced, the contractor provided technological capacities to remotely test and detect faulty meters. This it significantly assisted the company curb non-revenue water. The Technical Manager also noted that the company has managed to concentrate on its core functions such as expansion of treatment plants to serve its customers more appropriately.

4.6 Inferential Analysis

Multiple regression analysis was conducted as to determine the relationship between service deliver at KEWASCO and the three variables. The tested variables included; outsourcing security services, outsourcing of revenue collection and outsourcing of repair and maintenance.

The functional relationship was shown by using the multiple regression equation which takes the form:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3$$

Where:

Y = Service delivery at KEWASCO

β_0 – Constant

X_1 – Outsourcing of security services

X_2 – Outsourcing of revenue collection services

X_3 – Outsourcing of repair and maintenance services

Ran on SPSS, the table below was generated.

Table 4.6: Regression table on the effects of outsourcing on service delivery at KEWASCO

Model	Un-standardized coefficient		Standardized coefficient	t statistic	Sig. level
	B	Std. error	Beta		
1 Constant	1.121	0.2325	-	5.231	.000
2 Outsourcing of security services	0.823	0.1023	0.1023	6.671	.001
3 Outsourcing of revenue collection	0.634	0.1324	0.1254	4.223	.004
4 Outsourcing of repair and maintenance services	0.569	0.3542	0.1187	3.896	.003

Source: Researcher 2020

As per the established regression equation, and holding all the three variables constant at zero, service delivery at KEWASCO will be 1.121. The above regression table also depict that taking all the three independent variables at zero, a unit increase in outsourcing of security services would increase service delivery in KEWASCO by 0.823. Consequently, a unit increase in outsourcing of revenue collection would lead to a 0.634 increase in service delivery in KEWASCO. Lastly, a unit increase in outsourcing of repair and maintenance services increases service delivery in KEWASCO by 0.569

The above analysis therefore, means that the three variables (Outsourcing of security services; outsourcing of revenue collection and outsourcing of repair and maintenance services) positively influence service delivery at KEWASCO. With the significance level of all the variables being less than 5% (0.005), it means that the independent variables significantly influence dependent variables. This study therefore, holds that strategic outsourcing at KEWASCO positively influence service delivery.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter sums up the findings by pulling the threads together so that the reader can easily understand the findings of the study. The chapter organizes the summary in line with the objectives of the study. After articulating the summary of the findings, a conclusion on the effects of three outsourced functions; security services, revenue collection and repair and maintenance on service delivery at KEWASCO. This chapter also offers both policy and academic recommendations.

Policy recommendations are meant to help KEWASCO, the water department of Kericho county government as well as the water regulator, to come up with improvement strategies. Academic recommendations are presented to assist future researchers to further venture into studies that relate to strategic outsourcing and service delivery.

5.2 Summary of the Findings

This section presents the summary of the finding in line with the three objectives of the study.

5.2.1 Effects of Outsourcing Security Services on Service delivery

From the findings of the study, it is clear that outsourcing of security services has positive effects on the service delivery in KEWASCO. Mainly, the positive effect on service delivery is manifested in the way outsourcing of security services has affected the cost of production and staff productivity at KEWASCO. It was also found that security outsourcing does not have direct impacts on the other key performance

indicators such as water quality, non-revenue water as well as consistent supply. However, it cannot be ruled out that an indirect relationship between the two variables may exist. This could be studied in the future.

When KEWASCO outsourced security services, its financial burdens lowered immediately. The cost of equipping, pension, insurance, supervision as well as payment of overtime was instantly offloaded to the contractor. This significantly reduced the overall cost of production of the company while at the same time improving the productivity of employees because they were relieved off their security duties and deployed elsewhere to support in service provision.

5.2.2 Effects of Outsourcing of Revenue Collection Services on Service Delivery

The findings of this study depict that KEWASCO management made a good decision to outsource the revenue collection function. KEWASCO signed agreements with various banks and mobile banking service providers to be able to receive and bank monies on behalf of the company. This decision assisted the company in two main ways; to reduce cost of production and increase staff productivity and to increase the company's revenue collection efficiency.

First, the company reduced cost of production in many ways. Initially, KEWASCO had deployed a sizable number of employees in the name of revenue collectors. The revenue collectors would go house to house with receipt books collecting monies from water consumers. This was very tedious and rudimentary. Therefore when the company outsourced revenue collection, these employees were deployed elsewhere. The cost of revenue collection literally reduced to almost zero.

Secondly, the outsourcing of revenue collection services saw an instant increase in revenue. This is because of the convenience payment for the services. The mobile money platforms enables the customers to pay for their services from anywhere without time limit. Initially, the company would have to wait for customer working outside the county or country for long before they would physically come and settle their bills.

Additionally, cash associated risks were automatically fizzled out. Before adoption of private revenue collectors, the company experienced risks in money handling as well storage. Rogue staff also used to alter receipts and embezzle revenue. Consequently, when customers paid cash money in the late evenings, the company would be forced to store the monies until the next day. This was a risky venture because it attracted burglars into the company offices.

Nevertheless, from the study it was noted that the majority category of elderly customers have no trust for digital mode of payment. This limited chance to collecting higher revenue for the company.

5.2.3 Effects of Outsourcing Repair and Maintenance Services on Service

Delivery

Repair and maintenance is a very important function in the service delivery of a water service provider. It is the quality of repairs and maintenance done that determines the consistency and quality of water supplied to the consumers as well as the quantity of water loses. Repair and maintenance also is a very expensive venture. According to the finance manager, it accounts up to 40% of the total cost of production. However, this study finds that outsourcing this service is a sigh of relief to KEWASCO in as far

as costs is concerned. While outsourcing repair and maintenance the company improved service delivery in the following ways.

First, outsourcing repair and maintenance services reduced the cost of production and increased staff productivity. The contractor came in with his employees and relieved the company staff of the same job at a slightly lower cost. While the company used to maintain staff throughout, even when there were no breakdowns, but with employment of a contractor, charges are only paid for the work done making it cheaper.

Outsourcing of repair and maintenance also increased consistency of supply of quality water to the consumers and at the same time it lowered the non-revenue water. This is because the contractor came in with the expertise and superior equipment to be able to detect invisible leaks and repair them promptly and faster. This led to the reduction of interruption in water supply as well as reduction in water losses. This saved the company in terms of revenue loss as well as reduced customer complaints due to lack of water.

5.3 Conclusion

Overall, outsourcing of the three services under investigation depict a very positive effect on service delivery in KEWASCO. This has been proven by the regression analysis carried out; a unit increase in outsourcing of security services would increase service delivery in KEWASCO by 0.823. Consequently, a unit increase in outsourcing of revenue collection would lead to a 0.634 increase in service delivery at KEWASCO. Lastly, a unit increase in outsourcing of repair and maintenance services increases service delivery at KEWASCO by 0.569. From the above findings, it can be concluded that the outsourced services in many ways positively influence key

performance indicators including; revenue collection efficiency, cost of production, non-revenue water, consistent supply of quality water, as well as staff productivity. It can therefore be concluded that KEWASCO could be failing to meet the required service delivery targets because of other issues rather than problems in strategic outsourcing.

5.4 Recommendations

This study recommends to Customers, policy makers (KEWASCO and water sector) and the academia as follows:

It is evident that digital mode of payment, is the most efficient for KEWASCO customers. However, from the study finding some customers still complain of not getting physical receipt statement. Researcher therefore recommends to customers, importance of adjusting to mobile banking as it is the fastest, safest and cheapest also the mode does not require them to visit KEWASCO premises to effect payment. This will also ensure that they are not disconnected from the service.

The company should carry out proper sensitization of their customers especially the elderly so as to assist them understand and appreciate mobile money transactions as official. Proper sensitization would further lead to an increase in the company's collection efficiency and improve service delivery in the long run.

Additionally, KEWASCO may consider outsourcing more of its other non-core functions. This is because the three outsourced services under investigation in this study have proven to be fruitful in as far as the improvement of service delivery is concerned. The researcher further recommends that KEWASCO should review their outsourcing strategies to ensure that competent serviced providers are awarded

tenders. It was noted that the company still had challenges with the quality of work done by some contractors especially engineers at technical department.

Consequently, the water sector through WASREB should prepare policies backed by the legal framework to facilitate water service providers to easily outsource its non-core services. WASREB should also, through training, empower water service provider in the country at large so that they can have the necessary capabilities to outsource for services because it has proven to improve service delivery.

Lastly, a study should be carried out to understand why KEWASCO, despite outsourcing the three services, is still underperforming according to WASREB standards. This is confusing because all indicators show that the outsourced services have had a great positive effect on particular key performance indicators set out to be used in the water sector by the regulator. More research should be done on the possible causes of underperformance- high non-revenue water, water supply interruptions, high production costs, poor response to complaints among other challenges.

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APPENDIX I: INTERVIEW GUIDE FOR KEWASCO EMPLOYEES AND WATER SECTOR OFFICIALS

Introduction

My name is BII EDNA, a postgraduate student at Kenyatta University pursuing a Master Degree in Business Administration. As part of the requirements for this course; I am carrying out a research study entitled “**Strategic outsourcing and Service delivery in water sector: A case of Kericho Water and Sanitation Company (KEWASCO).**” This study is expected to provide essential information to come up with report on effect of outsourcing on service delivery. You being a stakeholder of KEWASCO I request your assistance in answering a few questions about the organization. Kindly note that information provided here will only be used for academic purposes and shall be treated with high degree of confidentiality.

INSTRUCTIONS

Please answer these questions to the best of your knowledge. Write your response in the space provided. Please put a tick (√) where appropriate and kindly fill the spaces provided

PART A: GENERAL INFORMATION

1. Indicate your highest level of education

i. Secondary level ()

ii. Diploma ()

iii. University degree ()

iv. Post graduate degree ()

2. Which department do you work at KEWASCO?

.....

3. How long have you been in the position you are currently holding?

i. Less than 1 year []

ii. 1 to 5years []

iii. Above 5 years []

4. Has KEWASCO adopted outsourcing strategy?

i. Yes []

ii. No [] if yes list the outsourced

functions.....

.....

5. What are the reasons behind adoption of outsourcing strategy at

KEWASCO?.....

.....

PART B: Effects of Strategic Outsourcing of Security Function on Service

Delivery at KEWASCO

1. Kindly, list company installations guarded

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.....

2. How long has the company outsource security services?

i. Less than 1year []

ii. 1 to 3years []

iii. Above 5years []

3. How has security outsourcing affected overall cost of production?

.....
.....

4. What is the impact of outsourcing security services on service hours and water quality?

.....
.....

5. In your own opinion do you think outsourcing of security services has affected non-revenue water (water losses) at KEWASCO?

i. Yes []

ii. No [] Explain

.....
.....

6. Has outsourcing of security services affected revenue collection efficiency in any way?

- i. Yes
- ii. No []

Explain

.....

.....

7. Should the company continue to outsource security services?

- i. Yes []
- ii. No []

PART C: Effects of Strategic Outsourcing of Revenue Collection Services on Service Delivery at KEWASCO

1. How does KEWASCO collect payments from customers
 - i. Revenue collectors []
 - ii. Mobile banking []
 - iii. Both []

2. For how long has KEWASCO outsourced revenue collection function?
 - i. Less than 1 year []
 - ii. 1 year to 5 years []
 - iii. Above 5 years []

3. Do you think privatization of revenue collection has affected non-revenue water (water losses) in any way?
 - i. Yes []
 - ii. No [] If yes
how?.....
.....

4. What is the impact of outsourcing revenue collection on the cost of production?
.....
.....

5. How has staff productivity been affected by privatization of revenue collection?.....
.....

6. Do you think revenue collection efficiency has been affected with privatization of revenue collection?

Yes []

No []

explain.....

.....

7. Has privatization of revenue collection affected water quality and supply hours?

i. Yes []

ii. No []

If yes explain

how.....

.....

8. In your view should KEWASCO continue to outsource revenue collection?

i. Yes []

ii. No []

PART D: Effects of Strategic Outsourcing of Repair and Maintenance

Services on Service Delivery at KEWASCO

1. List the equipment and facilities that require repair and maintenance at the company?

.....
.....

2. How does the company do maintenance and repair of its machines and automobiles?

- i. Company engineers []
- ii. Contracted experts []
- iii. Both of the above []

3. How long has KEWASCO outsourced maintenance and repair function?

- i. Less than 1year []
- ii. 1 to 3years []
- iii. Above 5years []

4. What is the effect of outsourcing maintenance and repair function on non-revenue water (water losses)?

.....
.....

5. Has outsourcing maintenance and repair function at KEWASCO affected service hours and water quality in any way?

- i. Yes []
- ii. No []

If yes,

how?.....

.....

6. What is the impact of overall cost of production at the company with outsourcing of maintenance and repair function?

.....

.....

7. Does outsourcing of maintenance and repair functions affect staff productivity at KEWASCO

i. Yes []

ii. No []

Explain how

.....

.....

8. What is the effect of outsourcing of maintenance and repair on revenue collection efficiency with at KEWASCO?

.....

.....

9. Should KEWASCO continue to outsource maintenance and repair function?

i. Yes []

ii. No []

APPENDIX II: QUESTIONNAIRE FOR CUSTOMER RESPONDENTS

Section A: General Information

Kindly, fill all the questions by ticking () in the boxes appropriately

1. Age in years? Below 30 () 30-40 () 40-50 () Above 50 ()
2. For what period of years have you been a customer to KEWASCO?
Below 2 years ()
2 to 5 years ()
Above 5 years ()

Section B: Effects of Outsourcing of Security Services on Service Delivery at KEWASCO

1. Are the visitors screened and inspected at entry point in KEWASCO premises? Yes. [] No []
2. Has there been reported incidence of robbery in KEWASCO since 2013? Yes [] No []
3. How does do security guards treat customers while showing directions
 - a) Politely []
 - b) Harshly []

Section C: Effects of Outsourcing Revenue Collection on Service Delivery at KEWASCO

- i. Do you receive water billing statement promptly? Yes [] No []
- ii. How do you make water payment?
 - a) Mobile banking
 - b) Agents []

- iii. What are the measures taken by KEWASCO for delayed water payment?
- a) Water disconnect []
 - b) Cash Penalty []
 - c) Both []

Section D: Effects of Outsourcing Repair and Maintenance on Service Delivery at KEWASCO

- i. How often do you experience water supply rationing in a month?
- a) No rationing []
 - b) 2 to 5 days a month []
 - c) Over 10 days a month []
- ii. What do you think are the main cause of water supply interruptions?
- a) Pump failure { }
 - b) Pipe leakages []
- iii. How long does it take KEWASCO to respond to sewer services? a) within 24 hours [] b) 2 to 3 days [] b) over a week []
- iv. Do you think sewer lines are regularly serviced? a) Yes [] b) No []

Section E: Customer Perception on Service Delivery at KEWASCO

To what extent will you rate the following services offered by Kericho Water and Sewerage Company (KEWASCO)? Use a scale of 1 to 5, where 1=strongly disagree, 2=disagree 3=neutral, 4=agree 5=strongly agree.

Kindly tick or circle the number that matches your perception in the table below.

Level of satisfaction by a consumer	Strongly disagree	Disagree	Neutral	Agree	Strongly disagree
Paying for KEWASCO Services is easy and convenient	1	2	3	4	5
KEWASCO credits my account immediately after payment	1	2	3	4	5
KEWASCO supplies you consistency with quality of water	1	2	3	4	5

Thank you for participating