FACTORS INFLUENCING IMPLEMENTATION OF WASTE MANAGEMENT PROJECT IN URBAN CENTRES IN KENYA: A CASE OF BUNGOMA SOUTH SUB COUNTY

By

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DECLARATION

This research project report is my original work and has not been presented for an award in any other university.

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DEDICATION

I dedicate this research project report to my dear parents, my father David Makanda and my mother, Metrine Naliaka. To my uncle Henry, aunt Juliana, brothers Brian and Philip, cousins Mary, Allan, Anita, Olga, Antonina, Norin and Dorin, sister in-law Cecilia and nephews Ryan and Philip. Without whose caring support it would not have been easy and encouragement throughout the course of preparing for and conducting the research.

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LIST OF ABBREVIATIONS AND ACRONYMS

BSSC	Bungoma South Sub County
CBOs	Community Based Organizations
CDM	Clean Developmental Mechanisms
CFCs	Chlorofluorocarbons
EC	European Commission
IMF	International Monetary Fund
ISWM	Integrated Sustainable Waste Management
MOU	Memorandum of Understanding
MSW	Municipal Solid Waste
MSWM	Municipal Solid Waste Management
NGOs	Non-Governmental organizations
PPPs	Public Private Partnerships
RRI	Rapid Result Initiative
TQM	Total Quality Management
UNEP	United Nations Environmental Programme
UON	University Of Nairobi

ABSTRACT

This research examined the factors influencing the implementation of waste management project in urban centres with reference to operations within the Bungoma South Sub County. The purpose of the study was to investigate the factors influencing the implementation of waste management project in urban centres a case of the Bungoma South Sub County. The specific objectives of the study were; to establish the influence of public private partnership on implementation of waste management project in Bungoma South Sub County; to examine the influence of staff training on implementation of waste management project in Bungoma South Sub County; to investigate the influence of organizational culture on implementation of waste management project in Bungoma South Sub County and to establish the influence of allocation of budgetary resources on implementation of waste management project in Bungoma South Sub County. Descriptive survey research design was deemed most appropriate for this study as it aided in the determination of the current state of affairs in BSSC. The target population for this study comprised of employees at the top, middle, and lower levels in the Department of Environment, in BSSC. A sample size of 80 respondents, representing about half of the target population was considered adequate. This study adopted stratified random sampling technique to ensure representatives across heterogeneous population groups, which was classified according to level of management. Questionnaires were used as the research instrument. Data was analyzed both qualitatively and quantitatively using SPSS. The findings revealed that, majority of the respondents were not aware of PPPSs and policies in place. Majority of the respondents agreed and observed that opportunities for training and development were available. Most respondents agreed to the availability of a clearly defined organizational direction and purpose. Moreover, the budgetary allocations were not effectively and efficiently utilized. Nevertheless, majority of the staff felt fairly motivated to work for the institution. Recommendations; policies should be improved and, enacted and more awareness created that support PPPs. Gaps in the management of training and development could be addressed through a revision of the policy on training by aligning the same to the strategic direction of the organization while also accommodating the career development needs of the diversity of employees. Transformation of the retrogressive organizational culture requires first a reformation in leadership. Recognizing that a new regime is in place, an audit of corporate governance could be the first step in addressing employees' empowerment towards implementation of waste management project. The existing policy on budgetary resources allocation should be improved and to accommodate transparency and effective utilization. Motivation is one of the most important keys to success. The government should motivate stakeholders and staff as it is likely to influence implementation of waste management project. Further research could be carried out on challenges facing the public private partnerships in implementing waste management project.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

According to (Golush, 2008), waste management practices involve the collection, transportation, processing, recycling or disposal, and monitoring of waste materials. The term waste refers to any materials created as a by-product or end product of animal and plant activity, but is conceptualized within waste management domains to imply materials created by humans and or human activity. Traditional and modern understanding of waste management are similar and are centric on activities that include collection of all thrown away materials in order to recycle them and as a result decrease their effects on our health, our surroundings and the environment and enhance the quality of life.

During the course of historical human and societal development, people have reinvented waste management to suit prevailing needs or factors. For instance, environmental management concerns were a trivial factor before the modern era but are strongly relevant in today's societies as it conforms to current advocacy for environmental conservation and sustainability. Concerns over the impact unmanaged waste has on the environment has witnessed a massive increase in safe disposal and recycling habits globally, which have equally grown to be important sub-industries in modern civilizations (Hounsell, 2004).

Unlike traditional societies, modern governments face growing challenges in effective management of waste. One reason given for these challenges is an increase in waste creation amidst societal development towards proactive capitalism. Within historical or pre-modern domains, the amount of waste generated by humans was insignificant due to low population density and an equally low exploitation of natural resources by societies. However, some civilizations do seem to have had a higher waste output, based on waste management systems they had created during an era assumed to have had limited technology, knowledge and relevance for such practices. For instance, the Maya of Central America had a fixed monthly ritual in which the people of the village would gather and burn rubbish in large dumps. Studies indicate that an increase in consumption habits characterizing modern consumerist lifestyles as well as general industrialization growth has produced more amounts of waste. Waste generation per capita has increased and may continue with growths in population, wealth, and consumerism indices throughout the world (Hounsell, 2014).

A second reason relates to the quality (or type) of waste material being produced in modern societies. Common waste produced during pre-modern times was mainly organic in nature and include ashes or other biodegradable waste that was easily discarded through on-ground dumping or burying. In addition, societies during these pre-modern eras suggestively practiced good recycling habits. For instance, implements created from wood or metal were either reused or passed down through generations. Constituents in most modern products and manufacturing processes used to make these products have increased levels of non-biodegradability, toxicity, and pollution effects of modern waste. Studies indicate a large percentage of modern waste include components such as heavy metals, Chlorofluorocarbons (CFCs or Green house gases), and other toxic chemicals that increase the hazardous nature of such waste to human beings, general biological life and the environment (Hounsell, 2014).

Third, waste management problems develop as effects of inefficient waste collection and processing mechanisms that lead to waste accumulation within habited domains. Waste management mechanism and or practices utilized within the modern age seem to be ill equipped to manage the amount of waste being produced or that is dumped in the environment. For instance, consistent use of landfills as waste dumping remedies offers little help in containing the world's waste load or mitigating problems associated with unmanaged waste such as environmental pollution. Landfills are established in abandoned or unused quarries, mining voids or borrow pits located in regions secluded from regular human habitation. Traditional, poorly designed or mismanaged landfills can create a number of adverse environmental problems, some of which include wind-blown litter, attraction of vermin, and generation of hazardous chemicals. Another common product of such landfills is green house gases (mostly composed of methane and carbon dioxide), which is produced from anaerobic breakdown of organic waste. These gases can create odor problems and kills surface vegetation, in addition being air pollutants. In general, properly designed and well-managed landfill can be a hygienic and relatively inexpensive method of disposing of waste materials (Hounsell, 2014).

Developed countries such as China for instance, have modernized traditional waste management techniques to improve their efficacy and mitigate risks of waste. Design characteristics of such modern landfills include the use of lagging or impervious material such as clay or plastic to line the landfill surfaces. Deposited waste is normally compacted to increase its density and stability for recycling purposes or covered to prevent attracting

vermin (such as mice or rats). Some landfills are also fitted with gas extraction systems. Gas is pumped out of the landfill using perforated pipes and burnt in gas engines to generate electricity (Kristen, 2005). The conversion of waste as a potential source of energy has value as a supplemental feedstock for the rapidly developing bio-fuels sector. A variety of new technologies are being used and developed for the production of bio-fuels, which are capable of converting waste matter into heat, power, fuels, or chemical feedstock. Thermal technologies like gasification, pyrolysis, thermal depolymerization, plasma arc, and gasification, as well as non–thermal technologies like anaerobic digestion and fermentation are a number of new and emerging technologies that are able to produce energy from waste and other fuels without direct combustion. Biodegradable wastes can be processed by composting, vermi-composting, anaerobic digestion or any other appropriate biological processing for the stabilization of wastes. Recycling of materials like plastics, paper, and metals can be done for future use (Golush, 2008).

According to (Pitchel, 2005), attributes created through effective waste management largely underscore social development aspects pertinent to human development and sustainability. Traditional outlooks that viewed waste as products of minimal relevance to societies are quickly being abolished for ideals that embody recycling and conservation habits. Approaches to solving key waste problems in a scalable and sustainable manner could mean adopting models that uses waste as an input in the production of commodities of value, making waste management a true profit centre. Waste can be a valuable resource if managed through effective policy and practice. Through rational and consistent waste management practices, there is an opportunity to reap a range of benefits, which include the following: Economic – This involves improving economic efficiency through waste resource utility, treatment, and disposal, as well as creating markets for recycled material. This embodies efficient practices in the production and consumption of products from waste materials recovered for reuse. In addition, these practices create the potential for new jobs and business opportunities. Social – This entails reducing adverse impacts of litter or sewage on health by proper waste management practices. A key consequence of such practices is the creation of more appealing settlements. In addition, social advantages created through effective waste management can lead to new sources of income that potentially lift communities out of poverty. This has been particularly evident in developing countries and cities within these regions. Environmental – This is centric on reducing or eliminating adverse effects of waste on the environment through reducing, reusing, and recycling. Effective waste management

can provide improved air and water quality that are critical in sustaining nature's biodiversity. Inter-generational Equity – Adopting effective waste management practices can provide subsequent generations with relevant environmental resources, sustaining a fairer, more inclusive society.

Waste management problems in Africa are varied and complex with infrastructure, political, technical, social/economic, and organizational/management, regulatory and legal issues and challenges to be addressed. Waste is typically disposed off without consideration for environmental and human health impacts, leading to its accumulation in cities, towns, and uncontrolled dumpsites. Co-disposal of non-hazardous and hazardous waste without segregation is common practice. Municipal Solid Waste (MSW) management has continually been an intractable problem in recent times beyond the capacity of most municipal/state governments. This has resulted in refuse heaps being dumped in the urban landscape in heavily populated cities as typically only about 40 to 50% of waste is reportedly being collected. Improper waste disposal in Africa has resulted in poor hygiene, lack of access to clean water and sanitation by the urban poor. Consequently most of the countries in the region may not be able to meet the Millennium Development Goal target of reducing by half the proportion of people without sustainable access to safe drinking water and basic sanitation by 2015 (Mwesigye *et al*., 2009).

In Kenya, the current waste management situation is characterized by the inability of local authorities to collect all the waste generated. Waste collection and transportation is limited by inadequate equipment, personnel and financial resources facing all local authorities. There are over 150 private sector waste operators independently involved in various aspects of waste management, indicating a wider private sector involvement in waste management in Nairobi. Community-based Organizations (CBOs) and Self-help Groups operate in high-density residential areas of the City as primary waste collectors where also segregation is done. Hazardous waste and healthcare waste is mostly incinerated. However, some of them find their way into dumpsites where they are mixed with municipal waste. None of the urban centres in Kenya operates a landfill. Most of the waste generated ends up in dumpsites where no waste compaction and capping take place. As there is no source segregation of waste in Kenya, most of the recovery of resources takes place at these dumpsites. Recycling and composting technologies are very informal and rudimentary and account for a mere 8%. Big companies such as Homegrown and Sian in the horticultural industry undertake their own

vermin-composting programmes. Several other Non-governmental Organizations (NGOs) and CBOs are using the same technology. Except for manure that finds ready market in agriculture, the greatest challenges facing recycling activities are three-fold; accessing appropriate technologies, ensuring quality, and finding markets for recycled products. (Mwesigye *et al*., 2009).

Solid waste is emerging as a major public health and environmental concern in Bungoma Municipality. Despite increase in solid waste generation, there has not been accompanying increase in the capacity of the municipality to deal with this problem. The proper management of waste has thus become one of the most pressing and challenging environmental problem in Bungoma Municipality. Many studies in the developing countries indicate that more than 50% of solid waste generated in urban areas is not collected nor properly disposed due to inefficiencies in waste collection and disposal. However, about 80% of the present waste generation in the core urban area of Bungoma Municipality is left uncollected or illegally dumped within the town and the remaining 20% is carried to the final disposal site. There is hardly any waste collection from the peri-urban areas of the municipality on the other hand. The adverse impacts of uncontrolled dumping and burning are widely acknowledged but in spite of these, they are still the common methods practiced in disposing solid waste in Bungoma Municipality with a potential of resulting in serious pollution. The Municipal Council of Bungoma disposal site is an open dumpsite and this poses detrimental effects to the surrounding environment (Roussel, 2012).

The risk of poor solid waste management practices is that pollutants are dispersed into the environment including heavy metals, organic matter, plastics, or synthetic organic compounds such as furans, dioxins, or polychlorinated biphenyls. In addition, the possible existence of storm drains or leachate from the sites poses risk of dispersing pollutants into the environment through surface and ground water courses. Therefore, the impact of solid waste to the environment and to human health has to be managed and disposed off in an environmentally sound manner (Roussel, 2012). Bungoma County has embarked on widespread waste management and environmental conservation. A garbage collection programme "Rapid Result Initiative (RRI) for integrated solid waste management" was launched to deal with the garbage and litter menace in Bungoma. Most youth have been empowered in this programme, alongside vulnerable groups of women and street families. The Bungoma County Governor signed an Memorandum of Understanding (MoU) with the

Spanish government to offer institutional support for solid waste management system, health sector through building and equipping hospitals in Bungoma county and also development of renewable energy.

1.2 Statement of the Problem

Insight gained through previous studies have shown that waste transportation, processing, recycling or disposal and monitoring, is managed ineffectively and inefficiently (Mwesigye *et al*., 2009). Bungoma faces growing health and sanitation problems, cited in studies as consequences of poor waste management within the county (Roussel, 2012). The aim of this study was to investigate factors influencing implementation of waste management project in Bungoma South Sub-County. Thus, improve sustainable waste management through adopting waste management models that incorporate provision of quality services to the county's residents. These solutions may enhance improvement of measures of waste management project, in order to address spiraling influences of waste accumulation within the BSSC.

1.3 Purpose of the Study

The purpose of the study was to investigate factors influencing implementation of waste management project in Bungoma South Sub-County.

1.4 Objectives of the Study

The objectives of the study were:

1. To establish the influence of public private partnerships on implementation of waste management project in Bungoma South Sub County.
2. Examine the influence of staff training on implementation of waste management project in Bungoma South Sub County.
3. Investigate the influence of organizational culture on implementation of waste management project in Bungoma South Sub County.
4. To establish the influence of allocation of budgetary resources on implementation of waste management project in Bungoma South Sub County.

1.5 Research Questions

1. What is the influence of private-public partnerships on the implementation of waste management project in Bungoma South Sub County?
2. What is the influence of staff training on the implementation of waste management project in Bungoma South Sub County?

3. How does the organizational culture influence the implementation of waste management project in Bungoma South Sub County?
4. How does allocation of budgetary resources influence the implementation of waste management project in Bungoma South Sub County?

1.6 Significance of the Study

The intent of the study was to establish pertinent information that may aid stakeholders within the BSSC understand factors and challenges facing the implementation and sustainability of waste management project. Knowledge on impediments facing waste management project may help improve organizational oversight and procedural flow of waste management activities. Stakeholders may equally understand the critical role they play in the success of waste management project and take a more proactive or strategic approach in handling emerging issues. A key consideration in this regard may be to peg focus on attributes provided through effective management of budgetary resources, staff training, private-public partnerships, and positive organizational culture.

The findings of the study are important as they may serve as general reference to organizations that deal with waste management project as well as providing an insight to organizations and institutions involved in the research on delivery of waste management project and serve as a starting point for future research on better delivery of waste management project. The study may also provide an indication on steps that should be taken to improve the efficacy of waste collection and processing systems in current utilities within urban centres.

1.7 Delimitations of the Study

Bungoma County borders the Republic of Uganda to the West, Busia County to the South West, Mumias Sub-County to the South, and Kakamega County to the North East. Bungoma is divided into nine administrative and political divisions: Bumula, Kanduyi, Kimilili, Sirisia, Kabuchai, Webuye East, Webuye West, Tongaren, and Mt. Elgon, which are further divided into 46 political wards, and 88 administrative Locations. The target population only included 80 respondents representing the top, middle, and lower level employees in the department of environment, Bungoma South Sub County

1.8 Limitations of the Study

The nature of such studies creates the risk of targeted respondents being uncooperative. Some respondents may also fail to divulge information critical to the study or provide inaccurate

information. This problem may be solved through effective sensitization on the values this study will offer to relevant stakeholders concerning improved waste management.

Financial and security concerns may be a possible impediment to the study. The researcher will mitigate through effective budgeting and making provisions for extra security when needed respectively. While the study adheres to privacy and confidentiality policies that govern area of study, respondents, and the researcher's institution, there is still fear that the aforementioned factors may play a minimal role in affecting the research. This problem may be solved through assuring the respondents of anonymity and confidentiality.

1.9 Basic Assumptions of the Study

It was assumed that the target population would provide the necessary information.

1.10 Definition of Significant Terms as Used in the Study

Budgetary resources: The amount of resources allocated towards waste management to ensure the project are implemented.

Garbage: Materials that have been used and are ready for disposal.

Implementation of waste management project: Putting waste management plan into practice.

Organization Culture: Group-specific behavior that is acquired, at least in part, from social influences or interaction within the department of environment in BSSC.

Public Private Partnership: Sharing of resources between the government and private sector in the waste management process.

Staff Training: Empowering the workers with relevant skills.

Solid waste: Any garbage, refuse, sludge from industrial, commercial, mining, and agricultural operations and from community activities.

Urban centre:	Refers to towns and cities.
Waste management:	Refers to the collection, transport, processing (recycle, re-use) or disposal, managing and monitoring of waste materials.
Waste management project:	Refers to a well documented, time, budget and scope specific plan that is geared towards transportation, collection, disposal, and processing of waste activities.

1.11 Organization of the Study

This study was organized in five chapters:

Chapter One, comprises of the background of the study, statement of the problem, purpose of the study, objectives of the study, research questions, significance of the study, basic assumptions of the study, limitations of the study, delimitations of the study, definition of significant terms used in the study, and organization of the study. Chapter Two, presents the literature review from scholarly publications on the programme based on the research objectives and questions.

Chapter Three, consists of the, introduction, research design, target population, sample size & sampling procedures and research instruments, pilot testing of instruments, validity and reliability of the of research instruments, data collection procedures, data analysis techniques, ethical considerations and operational definition of the variables. Chapter Four, presents data analysis, interpretation, and presentations. Chapter Five, contains summary of the findings, discussion, conclusion, recommendations, and suggestions for further research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provides information from publications on topics related to the research objectives. It examines what various scholars and authors have said about factors that can influence implementation of waste management project.

2.2 Implementation of Waste Management Project

According to (Speth, 2008) raw materials are becoming scarce and energy more expensive. Worldwide, soil, air, and water pollution are on the rise. The problems of waste are escalating because of changing consumption patterns, industrial development, and urbanization. Traditional systems of waste management are no longer appropriate. In many developing and emerging countries, the waste management systems in use are still inadequate, and unsustainable. It is common practice to dispose rubbish in unsafe landfills and illegal dumps, or in rivers and sewers, especially on the peripheries of urban centres. Local authorities are often unable to introduce integrated waste management systems due to the associated high costs. Very few models are capable of financing themselves while operating effectively. Sustainable waste management and recycling systems aim to reduce the quantity of natural resources consumed, while ensuring that any resources already taken from nature are re-used many times, and that the amount of waste produced is kept to a minimum. The processing of waste plays a key part in this. The partners in developing and emerging countries make progress with introducing proper waste management systems that are ecologically and economically sustainable. More financing systems and partnerships for the management and processing of waste products, staff training and positive organization culture are established.

2.3 Influence of Public Private Partnerships on Implementation of Waste Management Project

According to (Freire & Stren, 2001), Public Private Partnerships (PPPs) are an operational framework or design that entails cooperation between state organs and private entities to provide products or services to civilians within any society. The theoretical background of such ventures is based on business models of growth and sustainability, in that a public organization merges with one or more private entities to perform an activity that would gain socio-economic and developmental merits if performed by one individual entity. Therefore, public-private partnerships are largely similar to any type of partnerships that seeks to gain

from attributes created through involving many parties in performing any business objectives. The fact that public-private partnerships are all based on a similar theoretical approach does not imply that they share the same styles, they are being dynamic and dependent on the nature of business activities and/or the type of products or services being provided. (Akintoye *et al.*, 2009) asserts that public-private partnerships may be different from private-public ventures may be a key indicator of the dynamic nature of such types of partnerships. The type of public-private partnerships may depend on the management styles adopted for each, possible services or products being offered and the geospatial or economic nature of possible business operations adopted within such organizations.

Governments traditionally performed waste management activities. There are various reasons given for why such objectives were confined to governments but the main ones appear to centre on the resource-intensiveness of such project, which could not be aptly performed by private entities (Freire & Stren, 2001). For instance, providing entire drainage systems to manage sewers is often expensive, which makes such ventures only possible by holistic participation of the public through government. The notion of public participation in this regard, implies to instituting frameworks in which civilians pay for waste management services provided by the government through taxes or other periodic levies. This approach is adopted within most global societies and changes when either the public or government fails to play their role within the waste management system (Singh & Ramanathan, 2010).

Public-private partnerships in societies develop from an inherent need to meet expected objectives and standards of service, as well as sustain economic growth from provision of requisite services. Such partnerships may also develop from a need to diversify or improve the quality of service provision to the public hence the steps taken to increase the number of participating entities. According to (Akintoye *et al.*, 2009), public-private partnerships have become prevalent within some modern societies since they are on one part assumed to improve the scope of services offered to the organization to the public and adopt strategic business ideals that spur organizational growth and sustainability. However, public-private partnerships do not transcend all types of public services commonly offered by governments (Akintoye *et al.*, 2009). For instance, while services such as infrastructure maintenance can be conducted under public-private collaboration, sensitive services such as security cannot be easily detached from government. Waste management project have traditionally fallen under

the latter category of government services but the need to improve how practices are conducted within this sector has necessitated the inclusion of private players.

Public-private partnerships are common practice in waste management practices in the modern era (Akintoye *et al*, 2003). However, the operational design of such partnerships differs among countries. For instance, such waste management partnerships in the US involve private entities playing a more critical role (Pichtel, 2014). In this case, private players conduct collection, transportation, processing, recycling, and disposal objectives during waste management. The government is only responsible for general oversight objectives that include providing relevant legal documentation, facilitating logistical operations in regions where private organizations operate and monitoring activities relevant to provision of quality services to the public. This operational design is common within developed countries and differs from that of developing countries where public private partnerships involve equal participation of all players or one that involves private entities playing a minor role in waste management services provision (Pichtel, 2014).

For most developing countries, the government primarily conducts waste management objectives but there are some aspects of private participation that have been vital in ensuring efficiency and quality in service provision. On one part, such governments adopt strategic diversification theories of management that involve like-minded players who aid expansion of waste management processes to cover more clientele. According to (Majale, 2011), this approach has been effective in mitigating challenges created by increasing waste generation within developing cities, in line with growing numbers in populations and urban centres. Private-public partnerships equally gain from sharing resources and ideas that spur improvement of waste management operations. For instance, private players have been instrumental in providing technological resources that improve efficiency and quality of waste management processes. Private players equally adopt proactive business practices aimed at profitability and organizational growth, which have ensured that waste management services are conducted with professionalism (Singh & Ramanathan, 2010).

Governments may also adopt social inclusion principles of economic growth where they choose to limit their monopoly in service provision within the waste management sector. This approach is lauded within developing societies as a way of ensuring equitable spread of wealth generated from waste management as well as employment opportunities in regions deemed to have high unemployment rates. In fact, a recent survey conducted through the

International Monetary Fund, (2005) identified waste management as a growing industry within the modern era that offers more than 20% of job opportunities currently available in developing societies such as Bangladesh. The study equally identified economic returns gained from waste management processes as being a critical element in spurring development within modern governments (IMF, 2005).

Majale, (2011) Private-public partnerships in waste management in developing societies are therefore based on complementing service provision. It may involve the government laying the infrastructure groundwork, and private players providing intrinsic services using these platforms. In Kenya for instance, the government owns dumping grounds and drainage infrastructure used to manage waste but collection and transport objectives are often privatized. However, resourcefulness of private players threatens governments' ability to sustain equal participation in providing waste management services. (Singh & Ramanathan, 2010) hypothesizes a time when private-public partnerships in developing countries will transform to the outlook currently adopted in developed states such as the US and Europe. Despite these risks, private-public partnerships remain instrumental in improving the scope of waste management services and mitigating emerging challenges.

According to (Roussel, 2012) Bungoma County has embarked on widespread waste management and environmental conservation. A garbage collection programme "Rapid Result Initiative (RRI) for integrated solid waste management" was launched to deal with the garbage and litter menace in Bungoma. Most youth have been empowered in this programme, alongside vulnerable groups of women and street families. The Bungoma County Governor signed an Memorandum of Understanding (MoU) with the Spanish government to offer institutional support for solid waste management system, health sector through building and equipping hospitals in Bungoma county and also development of renewable energy.

2.4 Influence of Staff Training and Development on Implementation of Waste Management Project

Opportunities for training and development provide one of the most attractive incentives associated with reasons why employees, especially young and enthusiastic ones, stay with a particular employer (Ng'ethe *et al*., 2012)**.** Training and development involves an organized attempt to find out training needs of the individuals to meet the knowledge and skill which is needed not only to perform current job but the future needs of the organization (Mahapatro,

2010). Training and development processes attempt to provide an employee with information, skills and an understanding of the organization and its goals.

According to (Ghosh, 2008), training and development are terms that are sometimes used interchangeably. The author suggests that development is seen as an activity associated with managers while training is an activity associated with improving knowledge and skills of non-managerial employees in the present job. However, (Okumbe, 2001) is of the view that all employees, regardless of their previous training, education, and experience must be given further training and development as the competence of employees will never last forever due to factors such as technological change, transfers, and promotion. Employees who remain stagnant in their positions generally do not feel motivated and will not stay in unfulfilling position (Ng'ethe *et al*., 2012).

As observed by (Samuel & Chipunza, 2009) training and development enhances employee's performance, which encourages retention especially when the training programme was tailored towards employees' career progression in the organization. Hence, employers viewed training as indication of management commitment to building a lifelong commitment with the employees thereby influencing their turnover decisions. Organizations are therefore urged to identify ways to use the employees' new knowledge and capabilities inside the organization as employees could easily take their newly acquired skills to another employer as they feel their increased "value" is not being recognized (Mathis & Jackson, 2004). In addition, training had been viewed positively among employees. Approximately two thirds of employees viewed the training they have received from their employer to be useful in helping them perform their current job duties. Employees were less enthusiastic about how well it has prepared them for higher-level jobs or had reduced their job stress. Further, employees also viewed the training their employer provided as critical for determining whether they would stay with the employer.

Ghosh, (2008), noted that training made a very important contribution to the development of the organization's human resources. Managers were required to ensure that it was managed effectively so that the right training is given to the right people, in the right form and at the right time and cost. However, (Beardwell & Holden, 1997) argue that individuals are not aware of their needs and helping them towards some awareness was becoming an important issue in terms of the emphasis on 'self development'. They noted that further down the organizational ladder one descends, the less money is spent on training. Thus, managers and

professionals generally receive more financial support for training than clerical and manual workers do. Managers need to be rewarded for developing others or they would devote little time and energy to the task.

According to (Mathis & Jackson, 2010) there were widely expressed but wholly opposed perspectives on the link between training interventions and employee turnover. According to him, one school of thought believed that training opportunities enhanced commitment to an employer on the part of the individual employee and would be less likely to leave voluntarily while the other school of thought believed that training made people more employable and would be more likely to leave in order to develop their careers elsewhere. Hence the two arguments lead to the conclusion that "money spent on training is money wasted" as it ultimately benefits other employers. In addition, (Beardwell & Holden, 1997) also observed that some employer who had invested huge sums of money in training and developing employees who left their organization opted to concentrate on training in areas that were specific to their organization while 'poacher' organizations used money as an attractor and would invest little or nothing in training their employees.

Organizations are therefore urged to identify ways to use the employees' new knowledge and capabilities inside the organization as employees could easily take their newly acquired skills to another employer as they feel their increased "value" is not being recognized (Mathis & Jackson, 2004). However, (Samuel & Chipunza, 2009) observed that many managers were using training as a major retention strategy. They argued that constant training and development of employees could easily facilitate their early turnover instead of reinforcing their retention.

Staff training influences quality within an organization makes this practice crucial for sustainable development of players within the service provision industry. To date, service provision companies rank as the greatest users of staff training as compared to their goods manufacture counterparts, which may explain why the latter is at times seen to lag behind in terms of overall performance. Staff training in the service industry is at first crucial to sustain provision of quality service but offers other intrinsic benefits to employees and organization as a whole. For companies such as those in waste management services, staff training involves two approaches; one based on imparting necessary skills to new employees often termed orientation and a second that involves improving skills in employees while already undertaking their respective roles (post-orientation training). The latter is at times termed on-

job training but largely embodies all forms of knowledge development within employees with an overall aim of ensuring they either improve performance or conform to skill and operational changes within the work environment (Krishnaveni, 2008) .

According to studies, provided by (Michael, 2005) staff training within local Kenyan organizations is comparatively low as compared to foreign-based, international, and multinational companies. Furthermore, a survey on Kenyan companies noted that most staff training practices concluded at orientation, giving an indication that sustained development is rarely imparted among employees in such institutions. While this problem persists in both private and public owned companies, the latter bear the greatest chunk of the problem. Less provision for staff training in public organizations is a stark reminder and reason why standards of service face problems or are rapidly declining within the public sector. In their defense however, there could be reasons why implementing consistent staff training and development opportunities may be redundant or turnout to be expensive. Unavailability of resources is one key reason public companies within Kenya find it difficult to provide staff training and development to their employees. Sustaining fully-fledged training programmes is often expensive and resource intensive. Companies are forced to allocate a huge percentage of their budgetary spending to training activities to keep their employees at par with general development within the industry. Such a problem is compounded further in companies that witness frequent changes in operations, are heavily dependent on technology for functionality, or require skilled labor to sustain operations in situ. An effective training regime involves critical procedures and activities that would make it risky to perform such an undertaking without resources. Most public companies in Kenya akin to most developing nations lack the requisite resources to adequately undertake proper training programmes for their employees (Michael, 2005).

Staff training functions as a good motivational tool for employees. Theorists argue that a productive and a motivated work force can be sustained through consistent staff training (Accel-Team, 2003). Although the direct correlation between morale and staff training is yet to be determined through ratified models in research, there is a common assumption developed from studies that the ability to ensure employees effectively play their roles within an organization by sustaining requisite skill and performance thresholds creates a better working atmosphere in situ. Training involves changing in skills, knowledge, attitudes, or behavior. This may mean changing what employees know, how they work, or their attitude

towards their jobs, coworkers, managers and the organization. Staff training eliminates mundane often tedious, worn out or irrelevant processes means that employees focus on improving lives for themselves and others within the organization setting. As such, staff training is seen to impact positively on employee relations and their constructive participation within the work setting. This in turn may influence the implementation of waste management project either directly or indirectly.

2.5 Influence of Organization Culture on Implementation of Waste Management Project

Organizational culture is generally seen as a set of key values, assumptions, understandings and norms that is shared by a member of an organization and taught to new members as correct (Huey & Ahmad, 2009). According to (Carsen, 2005) lists attributes essential to a high-retention organization that can be summarized as follows: clearly defined organizational direction and purpose; that is, people want to work for an organization that has purpose and meaning. Thus, if you align employees with your mission, you can nurture a more dedicated and productive staff. Secondly, employees want caring management. Therefore, the quality of an employees' relationship with his or her immediate supervisor is one of the greatest predictors of employee satisfaction and, as a result, retention. One of the most important factors of the internal organizational environment that had a great bearing on strategic human resource management and was partly managed through human resource management practices such as selection, development, reward and employee retention".

Studies indicated that employees stay when they have strong relationships with others with whom they work (Clarke, 2001). This explains the efforts of organizations to encourage team buliding, project assignments involving work with colleagues and opportunties for interaction both on and off the job. According to (Ng'ethe *et al.,* 2012) employees are more likely to remain with an organization if they belief that their managers shows interest and concern for them, if they know what is expected of them, if they are given a role that fits their capabilities and if they receive regular positive feedback and recognition. Organizations should provide information on values, mission, strategies, competitive performance and changes that may affect employees. Companies should strive to provide information that employees want and need and better ways of communicating through credible sources like the Chief Executive Officer on a timely and consistent basis (Gopinath & Becker, 2000).

Related to organizational culture is a research report, which associated the use of high involvement work practices with increase in employee retention, compared to firms that were control-oriented whereby increase in employee retention was inversely related to productivity. On their review of determinants of staff retention, (Ng'ethe et al., 2012) argued that one of the critical roles of management is to create a work environment that will endear the organization to employees. Wiley, (2010) tabled the main items that successfully measure employee decisions to stay or leave. These include a future and a vision, work itself, recognition, growth and development. According to (Mathis & Jackson, 2010), organizations that have clearly established goals and hold managers and employees accountable for accomplishing results are viewed as better places to work, especially by individuals wishing to progress both financially and career-wise. The author postulates that another organizational factor that can affect potential turnover intentions is organizational politics. This can include managerial favoritism, having to be involved in undesirable activities, taking credit for what others do, and other actions that occur in many departments and organizational settings.

Corporate culture in waste management industry is more vulnerable towards crime. The reigning ideas on the waste management practice and its surrounding activities could well influence attitudes of employees. If not stressed otherwise, they could have the impression that regulations are not that strict, resulting in improper waste management without consent or knowledge of their supervisors. Nevertheless, corporate culture could turn into a positive aspect as well. As companies may consider their environment and administrative investments as an advantage for their public image, they could well emphasize this in their corporate culture, supporting this image. Taking into account the possible weaker points in corporate culture, this process can still be given the notion of low vulnerability, as corporate culture forms only a part of personnel management (Maull *et al.* 2001).

Implementation of waste management project requires changes to the shared assumptions, frames of reference, and understanding that most organizations have developed through interaction with their environment. These changes will influence basic beliefs and values that employees hold about work. This is why many companies are now attempting to identify their organizational culture prior to implementing their waste management programme (Maull *et al.* 2001). The implementation of waste management project is not an easy task, as it requires a total change in organizational culture, shifting of responsibility to management, and continuous participation of all in the quality improvement process. In a study undertaken,

it was shown that a strong organizational culture could improve quality, and operational and business performance. The cultural change as the single most important inhibitor of quality policy implementation (Mandal *et al.*, 1999). It is argued that the major problems associated with the waste management adoption have been lack of understanding about the degree of organizational commitment required. In addition, (Reavill, 1999) suggests that organizations need to take into account the significant time scale involved for the organization's culture to adjust to the underpinning philosophy of waste management. Managers should understand and enforce the culture of Integrated Sustainable Waste Management (ISWM) that has been developed out of experience, to address certain common problems with municipal waste management in low-and middle-income countries in the South, and in countries in transition. ISWM recognizes three important dimensions in waste management: (1) stakeholders, (2) waste system elements and (3) sustainability aspects. The waste management hierarchy a policy guideline that is part of many national environmental laws and policies is also a cornerstone of the ISWM approach.

An organization that is committed to waste management has a culture based on commitment to customer satisfaction through continuous improvement. Such a culture can vary between organizations but has certain fundamental principles that can be implemented to secure a greater market share, increased profits, and reduced cost. In the UK for example, business excellence has been used to develop the quality culture, which is also embedded in the waste management philosophy (Kanji and Yui, 1997). Examples of the successful implementation of waste management by best practice organizations can be found in (Zairi and Whymark, 2000). An organization that embodies a healthy, positive culture will have the following impact on project: well planned resource allocation, high project performance regarding budget, schedule and scope, proper risk management, high employee morale, reduced probability of waste, rework and scrap, effective project management methodologies and practice, and empowered and highly motivated team.

According to (Davis, 2003) achieving a new way of thinking requires a focused change in the underlying corporate cultural values and norms. Changing organizational culture fundamentally shifts how work is done in an organization and generally leads to renewed commitment and empowerment of employees and a stronger bond between the company and its employees. Total Quality Management (TQM) requires a quality-oriented organizational culture supported by senior management commitment and involvement, organizational

learning and entrepreneurship, team working and collaboration, risk taking, open communication, continuous improvement, customers focus (both internal and external), partnership with suppliers, and monitoring and evaluation of quality. By replicating this study in different countries and contexts, the results could be very helpful for developing a model of TQM that can be implemented successfully in a cross-cultural context resulting to the successful implementation of waste management project.

2.6 Influence of Allocation of Budgetary Resources on Implementation of Waste Management Project

According to (Seaga, 2001) a budget is a pattern of expenditure and revenue over the life of the project. In general, it is a prediction of the possible costs that will be incurred by carrying out the activities planned in a project. Realistic planning of finances is key to the implementation of a project or programme. A professional and transparent approach to budget planning will help convince investors, development banks and national or international donors to make financial resources available. (Philip *et al*., 2008)

Before drawing up the budget, it is necessary to get an overview of the type of inputs needed to achieve the objectives of the project. Typical categories may be, for example; people, travel costs, vehicles, equipment, consumables, supplies, and subcontracts. Listing all the categories in columns in a spreadsheet application, such as excel, will help organize costs. As the budget should be in line with the activities set in the work plan, working through the narrative of the proposal identifies all the costs that must be incurred in order to carry out each single activity planned. Expenditures should be listed and classified accordingly. Budget's items are generally divided into direct costs and indirect costs. Direct costs are all those eligible costs that can be attributed directly to the project and are identified by the beneficiary as such, in accordance with its accounting principles and its usual internal rules. Indirect costs are all those eligible costs which cannot be identified by the beneficiary as being directly attributed to the project, but which can be identified and justified by its accounting system as being incurred in direct relationship with the eligible direct costs attributed to the project (EC, 2009)

According to (Mddiadmin, 1996) the money that a company invests in Total Quality Management (TQM) is generally spent in one of two ways: either as part of the initial costs of implementing TQM, such as training, education, materials, people's time away from work, or as part of the ongoing expenses required to maintain the programme without significant

changes. Initial costs involved in initiating the TQM programme consisted of two major items: training and team development. The majority of initial training costs are opportunity costs, including the time of both the trainees and their employee trainers. These costs do not involve cash flows out of the company, but are a trade-off for productive time. Secondary to these opportunity costs are the costs of training materials and off-site activities used during the training cycle. Continuing Investment in TQM are the costs of reinforcing initial training and keeping teams in place and are incurred annually. However, actual out-of-pocket expenses are usually negligible; the majority of the costs occur through lost opportunities to manufacture products.

As observed by (Appasamy & Nelliyatt, 2007) three financing mechanisms are used for financing Municipal Solid Waste Management (MSWM): municipal taxes (property tax), user charges, and grants, including in countries such as India, Malaysia, Thailand, Japan, and Indonesia. Cost-recovery methods are increasingly being used, in the form of deposit refund systems and volume-based methods. For MSWM in Bangkok, Singapore, Tokyo and Jakarta (UNEP, [Sa]). The laws in place encourage recycling, by specifying mandatory deposits and returns, with the aim of shifting the burden back to manufacturers. The scenario also applies to the volume-based system, where levies are either charged directly based on waste volume or indirectly through property tax, although these methods have only just been able to cover operating costs. If capital costs have to be taken into account other alternative financing mechanisms are required. This is why subsidies and grants are used in India, where the Indian Finance Commission allocates funds for solid waste management. The federal state then uses a different allocation formula to fund local cities to balance out the different economic circumstances across the country.

In respect of waste management as a source of potential revenue, most households are willing to pay for the services, but they normally do not pay the full cost of solid waste management, while estimating the actual cost is a challenge (Appasamy & Nelliyatt, 2007). Expenditure on proper disposal is similar to pollution abatement policies; if not regulated or properly enforced, municipalities will emulate industries and save money by under-investing in disposal technologies. Other financing options have recently been sought, including public-private partnerships (PPPs) and carbon taxing with the intention of promoting efficiency through better technologies (Appasamy & Nelliyatt, 2007). In line with the UNEP, a combination of government and privately run services is needed for effective, efficient and

accountable MSWM services – in India, successful PPPs have been replicated elsewhere in the country. Other options are the use of carbon financing which needs to be explored further, transforming waste at landfill sites into compost to generate greenhouse gases, and promoting the use of Clean Developmental Mechanisms (CDM).

According to (Appasamy & Nelliyatt, 2007) of the 20 case studies reviewed including the Financing and Incentive Schemes for Municipal Waste Management conducted by the European Commission, most concluded that, although the approaches were innovative, no 'one size fits all' exists, as specific methods are needed for specific areas. For instance, in Belgium, municipal waste is financed through a household waste tax or environmental tax, which is fixed and payable annually. The payment is for waste bags or containers used and charged by the frequency of waste collected called variable household levies. In Denmark, households pay a fee differential collection scheme, i.e. weight-based and volume-based. Small- or medium-sized and rural municipalities use weight-based for domestic waste from households, smaller companies, and institutions. (Appasamy & Nelliyatt, 2007) In Italy, the 'tagged bag' scheme is used, where waste is separated at source and bags are distributed free to the households – the fee is either variable depending on weight or fixed collection or recyclables and bio-waste. Lessons learnt from these financing mechanisms are estimating the actual cost of solid waste management is difficult, as components of the MSWM are not known. No one size fits all; tax evasion is rife; collection rates are low; administrative costs are high, especially when the property tax financing is used. When using PPPs, roles between parties involved need to be thoroughly clarified in order to reduce the potential for conflict. On the other hand, charging a fee creates an economic incentive to reduce waste and encourages recycling and separation of waste at source, and where PPPs have been successful, the results have been remarkable. However, caution needs to be exercised when adopting an equitable policy in developing countries where the majority of households are poor.

Additional financing options for solid waste management are (Koller, 2010): Tax system or special purpose tax such as for using landfill, user fee system where municipalities set certain fee and charges residents for residual waste per household, per square meter living space. It is used in Vienna and for specific purposes e.g. integrated disposal fee, deposit system (for certain waste types such as glass or plastic bottles, the full cost-recovery system which covers

all services and certain waste types and the producer responsibility system for packaging, where municipalities partly pay and the system pays part of the cost.

The government of Kenya long-term strategy in the Vision 2030 is "A Globally Competitive and Prosperous Kenya". The Vision was implemented through five-year rolling plans, starting with the First Medium-Term Plan (2008-2012). In respect of environmental management, the Vision takes recognition of the fact that economic growth and urbanization, combined with climatic change, are likely to impact negatively on the environment, and will require effective management to ensure sustainability. These economic, social, and global changes will exert immense pressure on the already declining natural resource base and on the country's fragile environment. It is stated that this necessitates a strong policy on the environment in order to sustain economic growth while mitigating the impact of rapid industrialization, (Kenya, 2007).

2.7 Theoretical Framework

The Extrinsic Theory of Motivation by Douglas McGregor (1960)

Theory X and Theory Y are theories of human motivation that were created and developed by Douglas McGregor. These theories describe two contrasting models of workforce motivation that have been used in human resource management, organizational behaviour, organizational communication and organizational development, (Accel Team, 2003). The theory he proposed Theory X assumption that the average human being has an inherent dislike of work, and will avoid it if possible. He also proposed Theory Y as a dimension of motivated behaviour. Theory X states that individuals will not be able to generate intrinsic drives because they are, by nature lazy and irresponsible. Incentives are important when it comes to promotion of motivation among workers. Theory Y regards workers as responsible individuals who can motivate themselves from within. The modern theorists have blended Theory X and Theory Y to produce Theory Z. This takes the view that we cannot rely completely on either the intrinsic or the extrinsic drives as the basis for motivation.

To conclude in the implementation of waste management project the leadership should ensure that they relate with employees well to ensure that they are motivated to work effectively. The management should incorporate employees in the daily decision making in order to feel that that they are part of the daily undertakings and to enable them to work diligently for the better of the organization. Relating well with employees will motivate them to work effectively towards the set goals.

2.8 Conceptualization of Variables

Independent Variables

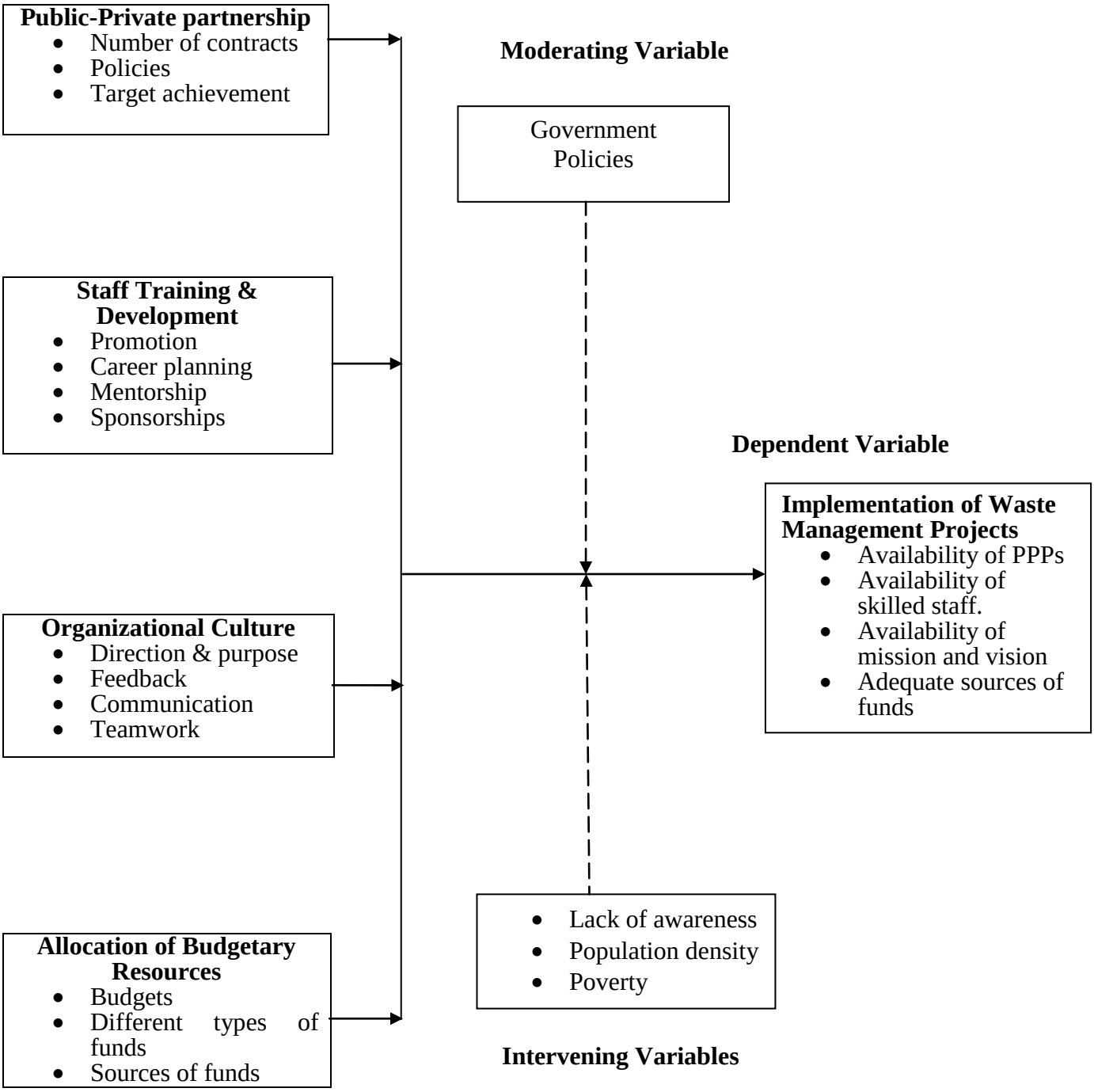

Figure 1: Conceptual Framework

Conceptualization of Variables

A conceptual framework is a concise description of the phenomenon under study accompanied by a graphic or visual depiction of the major variables of the study. The description of the conceptual framework emphasizes the researcher's over changing view of how the variables interact or could be made to interact under manipulated conditions. From the conceptual framework shown in figure 1 above, the independent variables in the study comprise of public- private partnership, staff training and development, organizational culture and budgetary resources. The dependent variable in the study is implementation of waste management project. The intervening variables in the study are lack of awareness, poverty, and population density. The moderating variable in the study is government policies.

2.9 Knowledge Gap

In Kenya, the current waste management situation is characterized by the inability of local authorities to collect all the waste generated. Inadequate equipment, personnel, and financial resources facing all local authorities (Mwesigye et al., 2009) limited waste collection and transportation. Studies focused on Bungoma as a semi-urban centre characterized by, low-medium population, and limited industrial and commercial activities. The government's local council conducted waste management and industries managed their own wastes. Currently, because of devolution Bungoma South Sub County has become a strategic commercial and industrial hub. This has lead to increase in population density, socio-economic activities, and waste. The Bungoma Council was structured to perform waste management activities for a small semi-urban town. The county cannot count on a traditional waste management project to tackle present waste management problems (Roussel, 2012). Because of increased industrialization and urbanization, this has lead to demand in increased budgetary resources, staff training in modern waste management and encourage public- private partnership to ensure effective waste management project implementation.

2.10 Summary

The government should put in infrastructure that supports public private partnerships operational framework or design that entails cooperation between state organs and private entities to provide products or services to civilians within any society. Such a partnership will influence positively the effectiveness and efficiency of waste management project implementation. All employees should be trained continuously, as their competence does not last forever due to factors like technological change, transfers, and promotion. Training enhances employee performance and retention when the programme is tailored towards the

employees' career progression in the organization. Employees view training as management commitment to building lifelong relationship with the employees thereby influencing their turnover decisions.

Employees also want to work for organizations with purpose and meaning, caring management. Organizations should provide information on values, mission, strategies, competitive performance that might affect employees positively. Adequate resources should be allocated to waste management project to ensure that the wastes are properly collected, transported, recycled, and disposed. Monitoring and evaluation should be done continuously to ensure that the activities and objectives are in line with the project goal and mission.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The general purpose of the study is to identify factors influencing implementation of waste management project in Bungoma South Sub County. This chapter describes the research methodology that was adopted. Detailed in the chapter was a description of the research design, target population, sampling design, data collection, and analysis procedures.

3.2 Research Design

According to (Kothari, 2004), research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. Research designs can be looked at in either quantitative or qualitative terms. (Matthews & Kostelis, 2011), descriptive survey research design seeks to answer immediate questions about a current state of affairs. It helps to provide in-depth information about the characteristics of subjects under study (Houser, 2011). Its emphasis is on producing data based on real world observation through a purposeful and ordered approach (Denscombe, 2003). Correlation design on the other hand attempts to establish the relationship between two or more variables (Matthews & Kostelis, 2011). One of the advantages identified in this research design is that it can be applied where experimental research is not possible, or where the predictor variable cannot be manipulated (Stangor, 2010)

This study combined both descriptive survey and correlation research design. Descriptive research design aided in the determination of the current state of affairs in BSSC and, correlation design helped establish association between variables.

3.3 Target Population

A population is the total set of elements about which inferences are drawn (Cooper & Schindler, 2005) whereas the target population refers to that group of people that will be the focus of the study (Carter & Quick, 2003). The target population for this study comprised of employees at the top, middle, and lower levels of employment in the Department of Environment, BSSC. All made a target population of 160 respondents (Department of environment BSSC, 2014).

Table 3.1 Target Population

Strata	Population	Percentage	Sample Size
Top Level	10	6.25	5
Middle Level	20	12.5	10
Lower Level	130	81.25	65
Total	**160**	**100**	**80**

Source: BSSC (2014)

3.4 Sample Size and Sampling Techniques

3.4.1 Sample Size

A sample is a section of a part that represents the lager whole (Saunders *et al.* 2009). Gill and Johnson, (2010) contend that what is important in sampling is not the proportion to the research population that is sampled, but the absolute size of the sample selected relative to the complexity of the population, the aims of the research and the kinds of statistical manipulations that will be issued in data analysis. As a rule of thumb, research methods literature suggests that a minimum sample size of 30 is adequate for most social research (Sekaran & Bougie; Ross, 2010). For the purpose of this study, 80 respondents, top level 5, middle level 10, and lower level 65, representing about half of the target population was considered adequate. This sample size both satisfies the minimum requirements of 30 and exceeds the requirement of at least 10% of the target population as suggested by (Mugenda & Mugenda, 2003).

3.4.2 Sampling Procedure

Sampling procedures are methods a researcher uses to select items or things to study (Matthews & Kostelis, 2011). According to (Jackson, 2011), stratified random sampling technique takes into account the different sub groups in the population and helps guarantee that the sample accurately represents the population on specific characteristics. (Gravertter & Forzano, 2011), argue that this technique is particularly useful when there is need to describe each individual segment of the population or to compare segments. However, the author observes that it tends to introduce a distorted view of the overall population. This study adopted stratified random sampling technique to ensure representatives across heterogeneous population groups, which was classified according to level of management.

3.5 Data Collection Instruments

The main data collection instrument was questionnaires. They were appropriate because they are cost effective and faster to administer, as they do not involve the researcher making personal visits to respondents.

3.5.1 Pilot Testing of the Instrument

The questionnaire was first piloted before the actual data collection was effected. This process involves trying out questionnaire on a small group of individuals to get a feel of how they react to it before the final questionnaire is developed (Stangor, 2010). A small sample of 10 respondents from Environmental Department BSSC was used for this purpose. The 10 respondents were not involved in the actual study. The purpose of conducting a pilot study was to ensure that items in the questionnaire are stated clearly and have the same meaning to all respondents (Mugenda & Mugenda, 2003). This aided the researcher in modifying the questionnaire for more clarity, objectivity, and efficiency of the process.

3.5.2 Validity of the Instrument

Mugenda and Mugenda (2003) describe validity as a measure of the degree to which data obtained from an instrument accurately represents a phenomenon under study. Content validity was preferred for this study. The validity of the instrument was checked by my supervisor and an expert in the field to establish whether they met the objectives of the study and if the questions reflected the desired response. The validity was improved before distribution for actual collection of data.

3.5.3 Reliability of the Instrument

According to (Mugenda & Mugenda, 2003), reliability is the extent to which research instruments yield consistent results after repeated trials. The researcher used test-retest technique to assess reliability. This involved administering the same test to the same test respondents on two separate occasions. We can refer to the first time the test is given as T1 and the second time that the test is given as T2. The scores on the two occasions are then correlated. The questionnaire was administered to a sample of respondents not involved in the study. The completed instruments were computed and comparison from the respondents made. The spearman's coefficient was used to ascertain the reliability of the research instruments.

3.6 Data Collection Procedures

Data was collected by use of questionnaire. The researcher used self-administered questionnaires, which had both closed and open ended questions. The researcher obtained authority from the Environmental Department, BSSC before issuing out the questionnaires to the employees and a letter of transmittal to accompany the questionnaires was done.

3.7 Data Analysis Techniques

Data analysis refers to the process of sifting through data and piecing together numerical evidence about a research inquiry (Marsh & Elliot, 2009). Quantitative techniques were used. This involved generation of data that is numerical, transforming what is observed, reported, or recorded into quantifiable units (Denscombe, 2003). Both descriptive and inferential statistical techniques were employed. According, to (Healey, 2005), descriptive statistics allows researchers to summarize large amounts of data using measures that are easily understood by an observer. This process consists of graphical and numerical techniques for summarizing data, in other words, reducing a large mass of data to simpler, more understandable terms.

The significance of the difference in the distribution of data was established using Chi-square test. Chi square was used to determine whether there was any statistically significant difference in the outcome of empowerment, staff training, motivation, and budgetary allocations. According to (Kothari, 2004), this technique is the most widely used method of testing for statistical significance between variables. The Statistical Package for Social Science (SPSS version 18.0) computer software was used for the purpose of analyzing the data. The data was presented in figures and tables.

3. 8 Ethical Considerations

A letter was sought from University of Nairobi to facilitate the application for a research permit from the National Council for Science and Technology. Approval was sought from the Bungoma County top management for permission to undertake the research. Respondents were informed about the objectives and benefits of the research. Moreover, assured that the findings would be used strictly for academic purpose only.

3.9 Operationalisation of Variables

There are four independent variables and one dependent variable in the study as shown in the conceptual framework. Table 3.1 below discusses the indicators of the variables, instruments used in collecting the necessary indicators and the methods of analyzing these variables.

Table 3.2: Operationalisation of Variable

Objectives	**Variables**	**Indicators**	**Measurement instruments**
To establish the influence of public private partnerships on implementation of waste management project in BSSC.	Independent Variable Public Private Partnership	Policies Number of contracts Target achievement	Questionnaire
Examine the influence of staff training on implementation of waste management project in BSSC.	Independent Variable Staff Training	Mentorship Sponsorship Promotion Career planning	Questionnaire
Investigate the influence of organizational culture on implementation of waste management project in BSSC .	Independent Variable Organizational Culture	Feedback Communication Teamwork Direction & Purpose	Questionnaire
To establish the influence of allocation of budgetary resources on implementation of waste management project in BSSC.	Independent Variable Budgetary Resources	Budget Different types of funds Sources of funds	Questionnaire
	Dependent Variable Implementation of waste Management Project	Effective and efficient management, communication, & partnerships	

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

The purpose of the study was to investigate factors influencing implementation of waste management project in Bungoma South Sub-County. In this chapter, findings of the study were analyzed, presented, and interpreted. The chapter was structured into five major sections based on the specific objectives. The first section presented the findings on the influence of public private partnerships on implementation of waste management project in Bungoma South Sub County. The second section examined the influence of staff training on implementation of waste management project in Bungoma South Sub County. The third section investigated the influence of organizational culture on implementation of waste management project in Bungoma South Sub County. The fourth section established the influence of allocation of budgetary resources on implementation of waste management project in Bungoma South Sub County. During the study a questionnaires for top level, middle level, and lower level of employment was designed and distributed to respondents. The questionnaires were used to obtain qualitative and quantitative data from a sample size of 80 respondents who constitute part of the staff working in Bungoma South Sub-County department of environment. The responses from the questionnaires were coded and analyzed by use of Statistical Package for Social Science (SPSS). This is a statistical software package that is vital in conducting statistical analysis, manipulating data, generating tables and figures that summarize data. The findings of the study are contained in summarized tables.

4.2 Questionnaire Return Rate

Questionnaire return rate is the portion of the sample that participated as intended in all the research procedures. For the purpose of this study, a total of 80 respondents; top level 5, middle level 10, and lower level 65, representing about half of the target population was considered adequate.

Table 4.1 Response Rate

Respondents	**Questionnaires issued**	**Returned**		**Not returned**	
		Frequency	**Percentage**	**Frequency**	**Percentage**
Top level	5	5	100	0	0
Middle level	10	10	100	0	0
Lower level	65	36	55.4	29	44.6
Total	**80**	**51**	**63.7**	**29**	**36.25**

A response rate of 63.75% was realized from the expected sample size of 80 as shown in the Table 4.1. This means that 51 questionnaires were successfully filled and returned. The rest of 36.25% could not be retrieved some of the reasons being, misplacement and most of the lower level respondents contract had ended. In view of (Mugenda and Mugenda, 2003) rule of at least 10% of the target population, the realized sample is adequate as it represented 31.9% of the population in question.

4.3 Demographic Characteristics of the Respondents

The research sought to establish the demographic data on respondents in terms of their gender, designation, terms of employment, and the number of years they have worked. The data is critical in determining their experience, motivation, and perspective towards implementation of waste disposal project.

4.3.1 Gender Distribution

The study sought to determine the gender of the respondents; the findings are presented in Table 4.2

Table 4.2 Gender Distribution of the Respondents

Gender	Frequency	Percentage
Female	20	39.2
Male	31	60.8
Total	**51**	**100**

Majority of those who participated in the study were male respondents who accounted for 60.8% while female constituted 39.2%. This means that there could be gender disparity in some departments. Women may not be considered fit to do some work.

4.3.2 Terms of Employment

The study sought to determine the terms of employment of the respondents; the findings are presented in the Table 4.3.

Table 4.3 Terms of Employment Distribution

Term	Frequency	Percentage
Permanent	19	37.3
Contract	25	49.0
Part time	5	9.8
No response	2	3.9
Total	**51**	**100**

The research endeavored to determine the terms of employment for those participating in the study. The findings indicated that majority were on contract basis 49.0%, on permanent 37.3%, while 9.8% were employed on part time basis. This may indicate that the workers in this department might not have much working experience years.

4.3.3 Position Held

The study sought to determine the position held by the respondents; the findings are presented in the Table 4.4.

Table 4.4 Position Distribution

Term	Frequency	Percentage
Top level	5	9.8
Middle level	10	19.6
Lower level	36	70.6
Total	**51**	**100**

The study sought to determine the position held by the respondents. Most of the respondents who participated in the study were lower level who accounted for 70.6%, whereas those in the middle level 19.6% and those in the top level accounted for the remaining 9.8%. This might be due to devolution and policy, more concrete structures are yet to be made and policies enacted.

4.3.4 Highest Education Level Attained by the Respondents

The study sought to determine the highest education level attained by the respondents; the findings are presented in the Table 4.5

Table 4.5 Education Level Attained

Education Level	Frequency	Percentage
Primary	5	9.8
Secondary	4	7.8
College	18	35.3
Bachelors	23	45.1
PhD	1	2.0
Total	**51**	**100**

To determine the education level of the respondents in the department, the respondents were asked to indicate their education level, the research findings indicated that 9.8% had attained certificate of primary education, 7.8% had attained certificate of secondary education, 35.3% had attained college degree, 45.1% had bachelors' degree, and 2.0% had PhD. Majority had bachelor's degrees. This means that the waste management requires educated individuals with specific skill and regular training.

4.3.5 Number of Years Working in the Present Department

The study sought to determine the number of years the respondents had worked the department of environment; the findings are presented in the Table 4.6.

Table 4.6 Years of Experience

Years	Frequency	Percentage
1-5	37	72.5
6-10	10	19.7
Over 10	2	3.9
No response	2	3.9
Total	**51**	**100**

To determine the period, which the respondents had worked in the department, the respondents were asked to indicate their years of experience, the research findings indicated that, 72.5% had worked between one to five years, 19.7% had worked between six to ten years, while the remaining 3.9% have an experience of more than 10 years. This could because of policy and terms of employment. Moreover, majority of the respondents felt fairly motivated to work for the department.

4.4 Public Private Partnerships Factors that Influence Implementation of Waste Management Project in BSSC

4.4.1 Employees Awareness of PPPs in BSSC

The study sought to determine the respondents' awareness of Public Private Partnerships; the findings are presented in the Table 4.7.

Table 4.7 Employees Awareness of PPPs in BSSC

Responses	Frequency	%
No	25	49.1
Yes	22	43.1
Non response	4	7.8
Total	**51**	**100**

The respondents were asked if there was any Public Private Partnership in BSSC that they were aware of. The findings represented shows that 49.1% of the respondents said no whereas 43.1% said yes. Therefore, majority of the employees were not aware of PPPs in BSSC. This may be due to the nature of employment. Members on contract and part timers may not be interested in knowing about the details of the establishment and the department

4.4.2 Influence of PPPs

The study sought to determine the influence of Public Private Partnerships on funds wastage, resource management, timely completion, community ownership, funds accountability, effective and efficient waste management; the findings are presented in the Table 4.8

Table 4.8 Influence of PPPs on the Variables

	Funds wastage	Resource management	Timely completion	Community ownership	Funds accountability	Effective & efficient waste management
$\bar{x}$	12	16	19	23	15	24
%	23.5	31.4	37.3	45.1	29.4	47.1

The respondents were asked how PPPs influence the implementation of waste management project in BSSC in relation to certain variables. The findings show that 47.1% of the respondents said effective and efficient waste management, 45.1% of the respondents said community ownership, 37.3% of the respondents said timely completion, 31.4% of the respondents said resource management, 29.4% of the respondents said funds accountability, and 23.5% of the respondents said funds wastage. This may be an indication that PPPs manage waste implementation effectively and efficiently. Thus, policies should be formulated and enacted to support the same.

4.4.3 Availability of Policies

The study sought to determine the availability of policies that supported PPPs in BSSC, from the respondents; the findings are presented in the Table 4.9

Table 4.9 Presence of Policies that Encourage PPPs in BSSC

Responses	Frequency	%
Yes	23	45.1
No	24	47.1
Non response	4	7.8
Total	**51**	**100**

The respondents were asked if BSSC department of environment has put in place any policies to encourage Public Private Partnerships. The findings represented show that 45.1% of the respondents said yes whereas 47.1% said no. Therefore, majority of the respondents were not aware of policies in place that encourage PPPs in BSSC. This could be due to majority of the employees are on contract basis and do not take keen interest in the departments details and establishments. Moreover, due to devolution policies are yet to be formulated, revised, and enacted.

4.5 Staff Training Factors that Influence Implementation of Waste Management Project in BSSC

4.5.1 Opportunities for Training and Development

The study sought to determine the provision of opportunities for training and development offered by the department; the findings are presented in the Table 4.10

Table 4.10 BSSC Provides Opportunities for Training and Development

Responses	Frequency	%
Strongly disagree	8	15.7
Disagree	4	7.8
Neutral	8	15.7
Agree	12	23.5
Strongly agree	10	19.7
No response	9	17.6
Total	**51**	**100.0**

Respondents were asked whether BSSC provided opportunities for training and development for its employees. The findings show that, 23.5% agreed and 19.7% strongly agreed that there were training and development opportunities for employees. 15.7% of the respondents were neutral whereas 7.8% disagreed and 15.7% strongly disagreed. This could mean that that in public sector jobs, intrinsic motivation may be more important, supporting a shift in the focus away from pay to non-financial factors, among them, employee training and development.

4.5.2 Job-Skills Match

The study sought to determine the job-skill match of the respondents; the findings are presented in the Table 4.11

Table 4.11 Tasks Assigned that Fully Utilize Employee Knowledge and Skills

Responses	Frequency	%
Strongly disagree	6	11
Disagree	9	17
Neutral	10	19
Agree	12	23
Strongly agree	7	13
No response	9	17
Total	**51**	**100**

Respondents were asked to indicate whether they were assigned tasks that make them to fully utilize the knowledge and skills they have acquired through training. The findings show that 23% of the respondents agreed and 13% strongly agreed. However, 19% of the respondents were neutral, 17% disagreed, whereas 11% strongly disagree. Majority of the respondents agreed. This could mean that organizations should attempt to utilize individual's knowledge

and skill which is needed not only to perform current job but the future needs of the organization.

4.5.3 Training Received Empowered Employees for Higher Level Jobs

The study sought to determine if the training received empowered the respondents for higher-level jobs; the findings are presented in the Table 4.12

Table 4.12 Training Received Empowered Employees for Higher Level Jobs

Responses	Frequency	%
Strongly disagree	5	9.8
Disagree	4	7.8
Neutral	14	27.5
Agree	17	33.3
Strongly agree	5	9.8
No response	6	11.8
Total	**51**	**100.0**

Respondents were asked whether the training they received prepared them for higher-level jobs. The findings presented shows that 9.8% of the respondents strongly agreed and 33.3% agreed that the training received prepared them for higher-level jobs. 27.5% of the respondents were neutral and 7.8% disagreed. Majority of the respondents agreed. This is an indication that training empowers employees for higher-level jobs; there should be policy and budgetary allocations that support employee training.

4.5.4 Effect of Training on Stress

The study sought to investigate whether work related stress reduced because of training; the findings are presented in the Table 4.13

Table 4.13 Work-related Stress Reduced after Training

Responses	Frequency	%
Strongly disagree	4	7.8
Disagree	3	5.9
Neutral	11	21.6
Agree	6	11.7
Strongly agree	16	31.4
No response	11	21.6
Total	51	100.0

The respondents were asked whether work related stress had reduced because of training. The findings presented shows that majority of the respondents strongly agree 31.4%. However, 11.7% of the respondents agreed and 21.6% neutral, whereas another 5.9% and 7.8% disagreed and strongly disagreed, respectively. Majority of the respondents agreed. This could mean that employees were enthusiastic about how well training reduced their job stress,

an aspect which was critical for determing whether or not they would stay with the employer. Thus inturn influence the success of waste management project implementation.

4.5.5 Effect of Training on Intention to Stay

The study sought to find out if the training programmes offered in the department can influence the employees' decision to stay or to leave the organization; the findings are presented in the Table 4.14

Table 4.14 Effect of Training on intention to Stay

Responses	Frequency	%
Strongly disagree	5	9.8
Disagree	2	3.9
Neutral	20	39.2
Agree	10	19.6
Strongly agree	3	5.9
No response	11	21.6
Total	**51**	**100.0**

Respondents were asked whether training programmes offered at BSSC influenced their decision to stay or leave. The findings presented shows 39.2% were neutral, 19.6% agreed, 9.8% strongly disagreed, 5.9% strongly agreed, 3.9% disagreed while 21.6% of the total interviewed never respondent. Majority of the respondents were neutral. This could mean that in public sector jobs, intrinsic motivation may be more important, supporting a shift in the focus away from pay to non-financial factors, among them, employee training and development.

4.5.6 Technical Abilities

The study found it necessary to find out how the respondents would describe their technical abilities to use different technologies; the findings are presented in the Table 4.15

Table 4.15 Technical Abilities

Responses	Frequency	%
Bad	4	7.8
Fair	12	23.5
Good	14	27.5
Very good	15	29.4
No response	6	11.8
Total	**51**	**100.0**

The respondents were asked to describe their technological expertise in handling waste management. The study revealed that, 29.4% said they had very good technical know-how, 27.5% were good, 23.5% were fairly good, 7.8% were bad, while 11.8% of the total interviewed never respondent. This means that the employees are well educated and

possessed the relevant skills in waste management. The department might take up training the employees on modern methods of waste management since technologies keep advancing.

4.6 Organizational Culture Factors that Influence Implementation of Waste Management Project in BSSC

4.6.1 Embracing and Understanding of the Organization Culture

The study sought to determine if the employees embrace their organization culture and clearly understood it; the findings are presented in the Table 4.16

Table 4.16 Embracing and Understanding of the Organization Culture

Responses	Frequency	%
Strongly disagree	9	17.6
Disagree	4	7.8
Neutral	11	21.7
Agree	13	25.5
Strongly agree	9	17.6
No response	5	9.8
Total	**51**	**100**

The interviewees were asked whether they embraced their organization culture and clearly understood it. The study revealed that 17.6% strongly agreed and disagrees, 25.5% agreed, 21.7% were neutral, 7.8% disagreed, while 9.8% did not respond. This indicated that majority of the respondents understood their organizational culture; this could be linked to the top managements' efficient communication and commitment.

4.6.2 Organizational Direction and Purpose

The study sought to find out if the department of environment had a clearly defined organizational direction and purpose; the findings are presented in the Table 4.17

Table 4.17 BSSC has Clear Organizational Direction and Purpose

Responses	Frequency	%
Strongly disagree	1	2.0
Disagree	4	7.8
Neutral	4	7.8
Agree	21	41.2
Strongly agree	14	27.5
No response	7	13.7
Total	**51**	**100**

Respondents were asked whether BSSC had a clearly defined organizational direction and purpose. The findings presented show that majority of the respondents' agreed 41.2% and 27.5% strongly agreed. However, 7.8% of the respondents were neutral whereas 7.8% disagreed and another 2.0% strongly disagreed. This showed that majority of the employees were aware of a clearly defined organizational direction and purpose. Moreover, successful

employee retention could be influenced by a future and vision, work itself, recognition, growth, and development. Thus can have a great influence on the successful implementation of waste management project.

4.6.3 Caring Management

The study sought to establish how the respondents would describe the management in the department of environment; the findings are presented in the Table 4.18

Table 4.18 Caring Management

Responses	Frequency	%
Strongly disagree	3	5.9
Disagree	4	7.8
Neutral	7	13.7
Agree	20	39.2
Strongly agree	11	21.6
No response	6	11.8
Total	**51**	**100**

Respondents were asked whether they would describe BSSC management as caring. The findings presented shows that 13.7% of the respondents were neutral, 39.2% of the respondents agreed whereas 7.8% disagreed and 21.6% strongly disagreed. Majority of the respondents agreed that the management was caring. This means that employees want caring management as the quality of an employees' relationship with his or her immediate supervisor is one of the greatest predictors of employee satisfaction and as a result retention and work out put.

4.6.4 Managers/Supervisors Discuss Development Plans with Employees

The study sought to determine if managers/supervisors sit down with employees to discuss their development plans; the findings are presented in the Table 4.19

Table 4.19 Managers/Supervisors Discuss Development Plans with Employees

Responses	Frequency	%
Strongly disagree	4	7.8
Disagree	4	7.8
Neutral	10	19.6
Agree	16	31.5
Strongly agree	9	17.6
No response	8	15.7
Total	**51**	**100**

The interviewees were asked whether the managers or their supervisors sit down with them to discuss development plans. The findings presented show that, 31.4% agreed, 19.6% were neutral, 17.6% strongly agreed, 7.8% disagreed, and 7.8% strongly disagreed. This shows

that majority of the respondents were aware that the managers or their supervisors sit down with them to discuss development plans. This could mean that the organization provides information on values, mission, strategies, competitive performance, and changes that may affect employees. This information could be communicated through credible sources like the chief executive officer on a timely and consistent basis.

4.6.5 Sense of Empowerment

The study was to establish whether the employees felt empowered while performing their duties; the findings are presented in the Table 4.20

Table 4.20 Sense of Empowerment at Work

Responses	Frequency	%
Strongly disagree	1	2.0
Disagree	4	7.8
Neutral	5	9.8
Agree	16	31.4
Strongly agree	20	39.2
No response	5	9.8
Total	**51**	**100**

Respondents were asked whether they felt empowered while performing their duties at BSSC. The findings presented shows that 31.4% of the respondents agreed that they felt empowered and 39.2% of the respondents strongly agreed. However, 9.8% of the respondents were neutral whereas 7.8% and 2.0% of the respondents disagreed and strongly disagreed respectively. Thus majority of the respondents felt empowered. This could mean that organizations that have clearly established goals hold managers and employees accountable for accomplishing results are viewed as better places to work especially by individuals wishing to progress both financially and career wise.

4.6.6 Sense of Teamwork

The study sought to determine if there is a culture of teamwork among colleagues at the department; the findings are presented in the Table 4.21

Table 4.21 Sense of Teamwork

Responses	Frequency	%
Strongly disagree	1	2.0
Disagree	4	7.8
Neutral	4	7.8
Agree	21	41.2
Strongly agree	14	27.5
No response	7	13.7
Total	**51**	**100**

Respondents were asked whether they had a culture of teamwork among their colleagues at work. The findings presented in table shows that 41.2% agreed, 27.5% strongly agreed that there was a culture of teamwork at BSSC. However, 7.8% of the respondents were neutral whereas 7.8% disagreed and another 2.0% strongly disagreed. This shows that majority of the respondents agree to having a culture of teamwork. This means that employees stay when they have strong relationships with others with whom they work. Hence, organizations should put in effort in encouraging team building, project assignments involving work with colleagues and opportunities for interaction both on and off the job.

4.6.7 Management Fosters a Culture of Accountability

The study sought to determine if the management fostered a culture of accountability within its rank; the findings are presented in the Table 4.22

Table 4.22 Management Fosters a Culture of Accountability

Responses	Frequency	%
Strongly disagree	3	5.9
Disagree	4	7.8
Neutral	9	17.6
Agree	15	29.5
Strongly agree	12	23.5
No response	8	15.7
Total	**51**	**100**

The respondents were asked whether management had fostered a culture of accountability within its rank. The findings presented in table shows that 17.6% of the respondents were neutral. 29.5% of the respondents agreed and 23.5% strongly agreed. On the other hand, 7.8% of the respondents disagreed and 5.9% strongly disagreed. The majority of respondents did agree and had confidence, which implies that management transparency was present.

4.6.8 Staff Motivation

The study sought to determine the level of motivation of the respondents; the findings are presented in the Table 4.23

Table 4.23 Staff Motivation

Responses	Frequency	%
Very motivated	5	9.8
Fairly motivated	22	43.1
Not motivated	8	15.7
No response	16	31.4
Total	**51**	**100**

The respondents were asked whether they are motivated to work for the department of environment. The findings revealed that, 43.1% said they were fairly motivated, 15.7% said they were not motivated to work for the department of environment, and 9.8% said they are very motivated. Majority of the respondents felt fairy motivated, this could be due to lack of transparency during the budgeting process. Moreover, majority were employed on contract basis. This could strongly influence the success of waste management implementation.

4.7 Budgetary Resources Factors that Influence Implementation of Waste Management Project in BSSC

4.7.1 Staff Involvement in the Budgeting

The study sought to investigate whether the employees were involved in the budgeting process; the findings are presented in the Table 4.24

Table 4.24 Staff Involvement in the Budgeting

Responses	Frequency	%
Yes	6	11.8
No	37	72.5
Non response	8	15.7
Total	**51**	**100**

The interviewees were asked if they were involved in the budgeting process. The findings revealed that 72.5% were not involved, while 11.8% were involved. This could mean that the budgetary process lacked transparency.

4.7.2 Waste Management Budgetary Allocation Utilization

The study sought to investigate whether the budgetary resources allocated towards waste management activities were utilized effectively and efficiently; the findings are presented in the Table 4.25

Table 4.25 Waste Management Budgetary Allocation Utilization

Responses	Frequency	%
Yes	22	43.1
No	24	47.1
Non response	5	9.8
Total	**51**	**100**

The interviewees were asked whether the budgetary allocation on waste management was utilized effectively and efficient. The findings revealed 47.1% disagreed while 43.1 agreed on

the effective utilization of resources allocated to waste management. Majority of the respondents felt that the resources were not efficiently and effectively utilized. This means that the budgetary process lacks transparency and accountability. Moreover, the employees were not involved in the budgeting process.

4.7.3 Influence of Budget Allocation on Implementation of Waste Management Project Activities

The study found it necessary to study in different categories whether the budget allocation had influence in the implementation of the following activities: influence on waste collection, waste transportation, waste disposal, waste processing, stated staff training, and stated staff remuneration; the findings are presented in the Table 4.26

Table 4.26 Budget Allocation Influence on Waste Management Project Activities

Waste collection		Frequency	Percent
		22	43.1
	Missing	29	56.9
Total		51	100.0
Waste transportation		17	33.3
	Missing	34	66.7
Total		51	100.0
Waste disposal		17	33.3
	Missing	34	66.7
Total		51	100.0
Waste processing		3	5.9
	Missing	48	94.1
	Total	51	100.0
Staff training		8	15.7
	Missing	43	84.3
Total		51	100.0
Staff remuneration		9	17.6
	Missing	42	82.4
Total		51	100.0

From the findings, the study established that 43.1% of the total interviewees stated the budget allocation had influence on waste collection, 33.3% stated the waste transportation, 33.3% stated the waste disposal, 5.9% stated the waste processing, 15.7% stated staff training, and 17.65 stated staff remuneration. These shows that majority of the respondents observed that budgetary allocations were geared towards waste collection. This could mean that the other activities are more or less given less priority.

4.7.4 Adequacy of Budgetary Resources Allocated Towards Waste Management Activities

The findings sought to establish the adequacy of budgetary resources allocated towards waste management activities in the department; the findings are presented in the Table 4.27

Table 4.27 Adequacy of Budgetary Resources

Responses	Frequency	%
High	5	9.8
Moderate	36	70.6
Low	2	3.9
Poor	2	3.9
No response	6	11.8
Total	**51**	**100.0**

The respondents were asked to state the adequacy of budgetary resources allocated towards waste management activities in the department. The findings presented in table shows 9.8% said high, 3.9% said low and poor, and 70.6% said moderate. This show that majority of the respondents observed that the adequacy of budgetary were moderate. This means that policies should be formulated that have sufficient resources allocated towards waste management.

4.8 Tabulation of responses

4.8.1The Role of Level of Employment and Terms of Employment

The study sought to determine if there were any significant difference between the level of employment and terms of employment; the findings are presented in the Table 4.28

Table 4.28 Role of Level of Employment and Terms of Employment

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.189[a]	4	.025
Likelihood Ratio	12.107	4	.017
Linear-by-Linear Association	8.803	1	.003
N of Valid Cases	49		

a. 7 cells (77.8%) have expected count less than 5. The minimum expected count is .51.

Chi square was used to determine if there were any significant difference between the level of employment and terms of employment. The findings revealed there was an association between the level of employment and the terms of employment with a significant value of 0.025 which is lower than 0.05. The majority of the respondent were employees on contract basis at the lower level of employment with 88%, 47.4% on permanent basis, 31.6% represented the respondent in the middle level of employment on permanent basis, and 21.1%

represented the top level responded on permanent basis. This shows that there is statistically significant difference in the level of employment and terms of employment empowerment distribution of BSSC department of environment, χ^2 (2) = .025, $p \leq .05$

4.8.2 The Role of Policies and PPPs

The study sought to determine if there was any significant difference between availability of policies and PPPs in the department of environment in BSSC; the findings are presented in the Table 4.29

Table 4.29 Role of Policies and PPPs

Chi-Square Tests			
	Value	**Df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	14.036[a]	2	.001
Likelihood Ratio	14.927	2	.001
N of Valid Cases	47		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is .94.

A Chi-square test was performed to determine if there was any significant difference between availability of policies and PPPs in the department of environment in BSSC. The findings presented shows that 77.3% said yes while 18.2 said no. The distribution of values showed statistical difference the variables had any association χ^2 (2) = 14.036, $p<.05$. This means that BSSC policies encouraged the formation of PPP.

4.8.3 The Role of Empowerment and Level of Motivation

The study sought to investigate if there was any significant difference between empowerment and level of motivation in the department of environment in BSSC: the findings presented in Table 4.30.

Table 4.30 Role of Empowerment and Level of Motivation

Chi-Square Tests			
	Value	**Df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	9.203[a]	8	.325
Likelihood Ratio	9.621	8	.293
Linear-by-Linear Association	.077	1	.781
N of Valid Cases	34		

a. 13 cells (86.7%) have expected count less than 5. The minimum expected count is .15.

A Chi-square test was performed to determine if there was any significant difference between empowerment and level of motivation in the department of environment in BSSC. The

findings showed that 76.97% felt fairly motivated and agreed. The distribution of values showed no statistical difference in association χ^2 (2) = 9.203, p>.05. This meant that the feeling of empowerment had no effect on the motivation of the staff at BSSC department of environment.

4.8.4 The Role of Motivation and Technical Abilities

The study sought to determine if there was any significant difference between level of motivation and technical abilities; the findings are presented in the Table 4.31

Table 4.31 Role of Motivation and Technical Abilities

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	16.995[a]	6	.009
Likelihood Ratio	18.260	6	.006
Linear-by-Linear Association	.998	1	.318
N of Valid Cases	30		

a. 11 cells (91.7%) have expected count less than 5. The minimum expected count is .50.

A Chi-square test was performed to determine if there was any significant difference between level of motivation and technical abilities to work for the department of environment in BSSC. The findings presented shows that majority of the employees where fairly motivated 55.6% and possessed fair technical abilities to work for the department of environment. This shows that there was statistically significant difference in the level of motivation and technical abilities distribution of respondents in terms of their intent to work for the BSSC department of environment. Meaning technical ability had an effect on motivation, statistical association χ^2 (2) = 16.995, p<.05

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

In this chapter, the findings are discussed, conclusions drawn and recommendations stated. The discussion proceeds according to the study objectives. The general purpose of the study was to identify factors influencing implementation of waste management project in urban centres in Kenya: a case of Bungoma South Sub County. Specifically, the study sought to: establish the influence of public private partnership on implementation of waste management project in Bungoma South Sub County; to examine the influence of staff training on implementation of waste management project in Bungoma South Sub County; to investigate the influence of organization culture on implementation of waste management project in Bungoma South Sub County and to establish the influence of allocation of budgetary resources on implementation of waste management project in Bungoma South Sub County

5.2 Summary of Findings

Concerning the Public Private Partnership factor, most respondents were not aware of PPPSs and policies in place in BSSC that support the association. Majority of the respondents agreed and observed that opportunities for training and development were available for BSSC department of environment employees. Employees were neutral concerning the effect of training on their intention to stay in the institution.

In regards to organization culture, most respondents agreed to the availability of a clearly defined organization direction and purpose. The management of BSSC department of environment is neutral in caring about the staff and discusses development plans with the staff. Majority of the respondents felt empowered to work for the department of environment. Concerning allocation of budgetary resources, majority of the respondents were not involved the budgeting process. Moreover, the budgetary allocations were not effectively and efficiently utilized. The respondents felt that the budgetary allocations were moderate in terms of allocation. Nevertheless, majority of the staff in BSSC department of environment felt fairly motivated to work for the institution. This could be due to poor remuneration, majority are on contract basis, moreover do not participate in the budgeting process.

5.3 Discussion

5.3.1 Public Private Partnerships Factors that Influence Implementation of Waste Management Project in BSSC department of Environment

The study showed that majority of the respondents (49.1%) was not aware of Public Private Partnerships while (43.1%) were aware in BSSC department of environment. Governments traditionally performed waste management activities. There are various reasons given for why such objectives were confined to governments but the main ones appear to centre on the resource-intensiveness of such project, which could not be aptly performed by private entities (Freire & Stren, 2001). For instance, providing entire drainage systems to manage sewers is often expensive, which makes such ventures only possible through holistic participation of the public through government. McGregor, theory x incentives are important when it comes to motivation. Thus, the government should put in place policies and infrastructure that encourages PPPs formations.

Further, the results showed that in relation to how PPPs influence the implementation of waste management project in BSSC in relation to certain variables 47.1% of the respondents said effective and efficient waste management, 45.1% of the respondents said community ownership, 37.3% of the respondents said timely completion, 31.4% of the respondents said resource management, 29.4% of the respondents said funds accountability, and 23.5% of the respondents said funds wastage. Moreover, (47.1%) of the respondents said there were policies that encouraged PPPs while (45.1%) said no in BSSC department of environment. (Pichtel, 2014) private players conduct collection, transportation, processing, recycling, and disposal objectives during waste management. The government is only responsible for general oversight objectives that include providing relevant legal documentation, facilitating logistical operations in regions where private organizations operate and monitoring activities relevant to provision of quality services to the public.

5.3.2 Staff Training Factors that Influence Implementation of Waste Management Project in BSSC department of Environment

The study showed that majority of the respondents (23.5%) observed that opportunity for training and development were available for BSSC department of environment employees, consistent with the intrinsic motivation focus in the public sector as hypothesized by (Samuel & Chipunza, 2009). Further, majority of the respondents were assigned tasks that fully utilized their skills and knowledge acquired through training. This resonates positively with the discourse by (Mahapatro, 2010) in view of the organization's attempt to utilize

individual's knowledge and skills, which is needed not only to perform current job but the future needs of the organization.

Further, results showed that majority of the respondents (33.3%) observed that the training employees received prepared them for higher-level jobs. Motivation theorists such as McGregor's theory x, individuals will not be able to generate intrinsic drives because they are by nature lazy and irresponsible. Trainings confers recipient with both the feeling and actual productivity and confidence in the work place. The study however, showed that majority of the respondents expressed reservations with the unstructured nature of training, along with complaints of scanty information, cronyism, and red tape. It is argued in this study that such misgiving in one way or the other influence implementation of waste management project in BSSC department of environment. Further, the study shows that (39.2%) of the employee's were neutral in decision to stay was influenced by training. (Ng'ethe *et al*. 2012) opportunities for training and development provide one of the most attractive incentives linked to the reasons why employees stay in an organization.

5.3.3 Organization Culture Factors that Influence Implementation of Waste Management Project in BSSC department of Environment

The study established that majority of the respondents (41.2%) observed the organizational direction and purpose in BSSC department was clearly defined. It is the view of this study that this has the potential to positively determine implementation of waste management project (Wiley, 2010). Moreover, the findings show that majority of the respondents see the management as caring. (Carsen, 2005) observes that people want to work for an organization that has purpose and meaning.

Similarly, majority of the respondents (39.2%) felt empowered while performing their duties at BSSC department of environment. The construct of empowerment is a factor explained in theoretical models of human motivation such as McGregor's theory x, the average human being has an inherent dislike of work, and will avoid it if possible. This study also established that manager's concern for employees was high and genuine. This can potentially affect the quality of employees relationship with the supervisors, (Carsen, 2005) which in turn affects employee activities output.

5.3.4 Allocation of Budgetary Resources Factors that Influence Implementation of Waste Management Project in BSSC department of Environment

The study showed that majority of the respondents (72.5%) was not involved in the budgeting process. A professional and transparent approach to budget planning will help convince investors, development banks and national or international donors to make financial resources available. (Philip *et al*., 2008). Moreover, in regards to budgetary allocation utilization in terms of waste management efficiency and effectiveness 47.1% disagreed. Expenditure on proper disposal is similar to pollution abatement policies; if not regulated or properly enforced, municipalities will emulate industries and save money by under-investing in disposal technologies (Appasamy & Nelliyatt, 2007).

In addition, the study showed that the budget allocation had influence in the implementation of various activities 43.1% of the total interviewees stated the budget allocation had influence on waste collection, 33.3% stated the waste transportation, 33.3% stated the waste disposal, 5.9% stated the waste processing, 15.7% stated staff training, and 17.65 stated staff remuneration. McGregor, states that incentives are important when it comes to motivation of workers, thus adequate budgetary resources should be directed toward staff remuneration and training.

Further, the results show that majority (70.6%) of the respondents quoted the adequacy of budgetary resources allocated towards waste management activities in the department of environment BSSC as moderate. Appasamy and Nelliyatt, (2007) three financing mechanisms are used for financing Municipal Solid Waste Management (MSWM): municipal taxes (property tax), user charges and grants.

5.4 Conclusions

The purpose of this research was to investigate factors influencing implementation of waste management project in Bungoma South Sub-County. The analysis of the data collected led to the following conclusions:

1. Policies and awareness level of Public Private Partnerships were inadequate in BSSC department of environment.
2. Organization culture has an influence on the implementation of waste management project in BSSC department of environment.
3. A substantial portion of the staff observed that opportunity for training and development were available for BSSC department of environment employees.

4. Budgetary resource allocations are inadequate and not effectively and efficiently utilized in BSSC department of environment, an aspect that is likely to influence implementation of waste management project.

The study was critical in relation to formulating policies and implementation of waste management project in the country. The findings will provide benchmarks upon which stakeholders in waste management can borrow to re-evaluate strategies and approaches in order to enhance implementation of waste management project

5.5 Recommendations

1. Policies should be improved and, enacted and more awareness created that support PPPs.
2. Gaps in the management of training and development in BSSC department of environment could be addressed through a revision of the policy on training by aligning the same to the strategic direction of the organization while also accommodating the career development needs of the diversity of employees.
3. Transformation of the retrogressive organizational culture at the department requires first a reformation in leadership, followed by an audit of corporate governance, should be the first step in addressing employees' empowerment towards implementation of waste management project.
4. The existing policy on budgetary resources allocation should be improved and to accommodate transparency and effective utilization.
5. Motivation is one of the most important keys to success. The government should motivate stakeholders and staff as it is likely to influence implementation of waste management project.

5.6 Suggestions for Further Research

It was noted that few studies have been carried out on public private partnerships in regards to waste management in various counties. Since PPPs have become popular, avenues for further research on challenges, facing the public private partnerships in implementing waste management project could be conducted.

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APPENDICES

APPENDIX I: LETTER OF INTRODUCTION

University Of Nairobi,
P.O. Box 30197-00100,
Nairobi.

Dear respondent,

Re**: Research**

I am a student at the above named university undertaking a Master of Arts Degree in Project Planning and Management. As a requirement for this course, the university expects me to submit a researched project as a partial fulfillment for the award of the degree.

To fulfill this requirement, I have decided to carry out a study on factors influencing implementation of waste management project in urban centres in Kenya: A case of Bungoma South Sub County.

I kindly request you to fill in the questionnaire attached. The information provided will be treated with confidentiality and will only be used for the intended purpose of this study.

As you participate in this study, do not indicate your name. I highly appreciate your contribution towards the success of this study. Thanking you well in advance for your kind consideration.

Yours Faithfully,

Makanda Moni N.

APPENDIX II: QUESTIONNAIRE FOR TOP, MIDDLE AND LOWER LEVEL OF EMPLOYMENT

Section A: Demographic Information

1. What is your gender?

Male ( ) Female ( )

2. Terms of employment

Permanent ( ) Contract ( ) Part time ( )

3. Which is your position/status?

Administrative ( ) Other.....

4. Highest education level attained

Primary ( )

Secondary ( )

College ( )

Bachelor's degree ( )

PhD ( )

5. Number of years working in the present department

1-5 ( ) 6-10 ( ) Over 10 ( )

Section B: Influence of Public Private Partnerships on Implementation of Waste Management Project in BSSC Department of Environment

Please indicate whether you agree or disagree with the following statements by placing a tick (√), corresponding to the answer which best reflects your opinion and explain.

6) Is there any Public Private Partnership in Bungoma South Sub County that you are aware of?

Yes ☐

No ☐

If yes list them

.....

.....

.....

7) How does Public Private Partnership influence the implementation of waste management project in Bungoma South Sub County?

Funds wastage ☐

Resource management ☐

Timely completion ☐

Community ownership (involvement) ☐

Funds accountability ☐

Effective and efficient waste management ☐

8) Has Bungoma South Sub County put in place any policies to encourage Public Private Partnerships?

Yes ( ) No ( )

Explain.....

9) Suggest ways as to how Bungoma South Sub County can improve Public Private Partnerships

.....

.....

Section C: Influence of Staff Training on Implementation of Waste Management Project in BSSC Department of Environment

Please indicate whether you agree or disagree with the following statements by placing a tick (√) corresponding to the answer which best reflects your opinion and explain why.

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
10) The department provides opportunities for training and development for its employees					
11) I am assigned tasks that make me fully utilize the knowledge and skills I have acquired through training					
12) The training I have received has prepared me for higher-level jobs					
13) Work related stress has reduced because of training					
14) Training programmes offered in the department can influence my decision to stay or to leave the organization					

15) How would you describe your technical abilities to use different technologies?

Very good ( ) Good ( ) Fair ( ) Bad ( )

Explain.....

16) Suggest ways as to how Bungoma South Sub County can improve on staff training

.....

.....

.....

Section D: Influence of Organization Culture on Implementation of Waste Management Project in BSSC Department of Environment

Please indicate whether you agree or disagree with the following statements by placing a tick (√) corresponding to the answer which best reflects your opinion explain.

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
17) Do you embrace your organization culture and clearly understand it					
18) The department of environment has a clearly defined organizational direction and purpose					
19) I would describe the management of BSSC as caring					
20) Managers/Supervisors sit down with employees to discuss their development plans					
21) I feel empowered while performing my duties					
22) There is a culture of teamwork among colleagues at work					
23) The management has fostered a culture of accountability within its rank					

24) How motivated are you to work for BSSC department of environment

Very motivated ( ) Fairly motivated ( ) Not motivated ( )

25) Suggest ways as to how Bungoma South Sub County can improve on the organization culture.....

.....

.....

Section E: Influence of Budgetary Resources Allocation on Implementation of Waste Management Project in BSSC Department of Environment

Please indicate whether you agree or disagree with the following statements by placing a tick (√), corresponding to the answer which best reflects your opinion and explain.

26) Are u involved the budgeting process?

Yes ☐

No ☐

Explain how ……...

27) Are budgetary resources allocated towards waste management activities utilized effectively and efficiently?

Yes ( ) No ( )

Explain.....

28) How does the allocated budget influence the implementation of waste management project, to what level of completion?

Waste collection ☐

Waste transportation ☐

Waste disposal ☐

Waste processing ☐

Staff training and development ☐

Staff remuneration ☐

29) Kindly indicate the adequacy of budgetary resources allocated towards waste management activities in your department

Very High ☐

High ☐

Moderate ☐

Low ☐

Poor ☐

Explain.....

30) Suggest ways as to how Bungoma South Sub County can improve on budgetary allocation

.....

.....

.....

THANK YOU FOR YOUR COOPERATION

THIS IS TO CERTIFY THAT:
MISS. MONI NABUTILU MAKANDA
of UNIVERSITY OF NAIROBI, 19808-202
Nairobi,has been permitted to conduct
research in *Bungoma County*

on the topic: *FACTORS INFLUENCING IMPLEMENTATION OF WASTE MANAGEMENT PROJECTS IN URBAN CENTERS IN KENYA: A CASE OF BUNGOMA SOUTH SUB COUNTY*

for the period ending:
31st August,2015

Permit No : NACOSTI/P/14/2589/4284
Date Of Issue : 10th December,2014
Fee Recieved :Ksh 1,000

.....
Applicant's Signature

.....
Secretary
National Commission for Science, Technology & Innovation

CONDITIONS

1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit
2. Government Officers will not be interviewed without prior appointment.
3. No questionnaire will be used unless it has been approved.
4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.
5. You are required to submit at least two(2) hard copies and one(1) soft copy of your final report.
6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice

REPUBLIC OF KENYA

NACOSTI

National Commission for Science, Technology and Innovation

RESEARCH CLEARANCE PERMIT

Serial No. A 3850

CONDITIONS: see back page