

**STAKEHOLDER CONFLICT MANAGEMENT STRATEGIES AND  
PERFORMANCE OF SOLID WASTE MANAGEMENT PROJECTS IN  
KISUMU CITY, KENYA**

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**A Research Project Report Submitted in Partial Fulfillment for the Requirement of the Award of  
Degree of Master of Arts in Project Planning and Management of the University of Nairobi**

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**DECLARATION**

This Research Project Report is my original work and has not been presented for the award of a degree or any other award in any University.

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## **DEDICATION**

I dedicate this Research Project Report to my parents Mr. Bernard Akello and Mrs. Peres Sewe who encouraged me to work tirelessly to ensure it is accomplished.

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## ABBREVIATIONS AND ACRONYMS

<b>ACS</b>	Accommodating Strategy
<b>ANOVA</b>	Analysis of Variance
<b>AVS</b>	Avoiding Strategy
<b>CBD</b>	Central Business District
<b>CBO</b>	Community Based Organization
<b>CGK</b>	County Government of Kisumu
<b>CIDA</b>	Canadian International Development Agency
<b>CLS</b>	Collaborating Strategy
<b>CPCB</b>	Central Pollution Control Board
<b>CPS</b>	Compromising Strategy
<b>CSF</b>	Critical Success Factors
<b>CTS</b>	Competing Strategy
<b>EPA</b>	Environmental Protection Agency
<b>EVM</b>	Earned Value Management
<b>ICT</b>	Information, Communication and Technology
<b>IPM</b>	Institute of Project Management
<b>KISWAMP</b>	Kisumu Integrated Sustainable Waste Management project
<b>KPI</b>	Key Performance indicators
<b>KUP</b>	Kisumu Urban Project
<b>MEIP</b>	Metropolitan Environmental Improvement Programme
<b>MODE</b>	Management of Differences Exercise
<b>NACOSTI</b>	National Commission for Science Technology and Innovation
<b>NEMA</b>	National Environment Management Authority
<b>NIMBY</b>	Not in My Backyard
<b>PCM</b>	Project Cycle Management
<b>PFC</b>	Performance of Solid Waste Management Project
<b>PLC</b>	Project life Cycle
<b>PMBOK</b>	Project Management Body of Knowledge
<b>PPI</b>	Project performance Indicators
<b>ROCI</b>	Rahim Organization Conflict Inventory
<b>ROI</b>	Rate of Return on Investment
<b>SCMS</b>	Stakeholder Conflict Management strategies
<b>SPSS</b>	Statistical Package for Social Sciences

<b>SWM</b>	Solid Waste Management
<b>SWMP</b>	Solid Waste Management Projects
<b>TK</b>	ThomasóKilmann Conflict Mode Instrument
<b>UN Habitat</b>	United Nations Human Settlements Programme
<b>UN</b>	United Nations
<b>UNEP</b>	United Nations Environment Programme

## ABSTRACT

The appalling state of solid waste management in cities and urban areas of the world has led to urban environmental degradation. The urban environmental degradation has further attracted the attention of the entire global environmental community who are now demanding for concerted effort and global action from stakeholders to save global cities that are choking with solid wastes as a result of poor waste management. Solid waste management projects therefore are designed and are aimed at mitigating solid waste challenges in these urban environments in order to restore their health and ecological functions. However, SWMPs have experienced a lot of stakeholder conflicts that have negatively affected their performances as they do not meet the expectations of donors, project proponents, policy makers, project implementers and the project beneficiaries in addressing solid waste management issues. The purpose of the study was to establish influence of stakeholder conflict management strategies on performance of solid waste management projects in Kisumu City. The study is significant in informing policy decision by both County and National Governments in addressing solid waste conflict issues in Kisumu City. The study was guided by 5 objectives namely; to establish influence of avoiding conflict management strategy on performance of solid waste management projects in Kisumu City, to assess influence of accommodating conflict management strategy on performance of solid waste management projects in Kisumu City, to investigate influence of collaborating conflict management strategy on performance of solid waste management projects in Kisumu City, to determine influence of competing conflict management strategy on performance of solid waste management projects in Kisumu City and to evaluate influence of compromising conflict management strategy on performance of solid waste management projects in Kisumu City. The study adopted descriptive survey research design, collected and analyzed both qualitative and quantitative data. The study's target population was 244 respondents drawn from various stakeholder groups involved in the implementation of solid waste management projects in Kisumu City. A sample size of 152 respondents was determined using Yamane's formula of 1967 and the respondents were selected using both probability and non-probability sampling procedures. Simple random sampling and systematic random sampling techniques for probability sampling and purposive sampling for non-probability sampling procedures. Data collection instruments comprised both self-administered questionnaire with a return rate of 98.03% and interview schedule. Pilot testing was conducted in Kakamega town to determine construct and content validity of the research instruments while reliability was pretested using Cronbach's alpha ( ) which was found to be 0.83. Descriptive statistics of arithmetic mean, standard deviation and inferential statistics of Pearson's correlation (r) and regression analyses were conducted to determine the relationships between variables which revealed that; there was a statistically significant weak negative relationship between avoiding conflict management strategy and performance of SWMP ( $r = -0.229$ ;  $P < 0.005$ ). There is a statistically significant weak negative relationship between accommodating conflict management strategy and performance of SWMP ( $r = -0.187$ ;  $P < 0.024$ ). There is a statistically insignificant weak Positive relationship between collaborating conflict management strategy and performance of SWMP ( $r = 0.104$ ;  $P < 0.209$ ). There is an insignificant weak Positive correlation between competing conflict management strategy and performance of SWMP ( $r = 0.144$ ;  $P < 0.079$ ) and that there is a statistically significant weak negative correlation between compromising conflict management strategy and performance of SWMP ( $r = -0.203$ ;  $P < 0.013$ ). The study concluded that relevant stakeholder conflict management strategies should be applied to a particular conflict situation to improve performance of solid waste management projects. The study thus recommended the application of stakeholder conflict management strategies in solid waste management projects and further suggested similar studies to be conducted in Nairobi and Mombasa Cities and Nakuru, Machakos and Kakamega towns, Kenya.

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background of the study

Conflicts within communities, institutions, work places, organizations and interpersonal interactions are common in day-to-day processes and associations. Stakeholder conflicts are not necessarily bad, abnormal, or dysfunctional but they are part of everyday project life cycle, (Moore, 1986). The success of any project cannot be determined without the input of stakeholders who are classified as either primary, secondary or tertiary depending on their role. Their variability however depends on the type of project that is being implemented, its scope, cost, duration of implementation and the expected output, (PMBOK, 2004). The importance of stakeholders to any project cannot be underscored as they provide the necessary resources, technical expertise, reduce and uncover risks through stakeholder engagement and they are also the beneficiaries of projects, therefore they grant the project acceptance. Typically, without stakeholders, projects would fail to exist as they are the most important link to any project and influence project planning, design, implementation delivery and utility, (PMBOK, 2008)

Stakeholder conflicts have always existed between stakeholders and those taking part in project ventures since time immemorial. Among the very first reported cases of Conflict Management Strategy was between stakeholders that took place in the pre-historic Greece, during the building of a tunnel in the Samos island somewhere around 550 BC, where, after public participations and reviews, for selection of the architect and engineers for the making of statue, the public were informed on the expenditure, and the state of the ongoing building (Osborne, 1987). Keeping the public informed, consensus building and active participation and engagement of stakeholders were used by the prehistoric Romans in building projects. Besides, at times conflicts are as a result of political causes and unresolved socio-economic backgrounds that cannot be managed using conflict management strategies but conflict resolution mechanisms will have to be applied, (Susskind and Field, 1996).

Waste Management Project Conflicts vary according to their socio-political and institutional framework, stakeholder interests, technical expertise and environment and thus have the following categories of key stakeholders, their roles and how they influence Solid Waste Management project performance; the first category are stakeholders who are key and are the main actors in the project. They have power and authority and therefore dictate activities and key implementation decisions. They may include; government agencies like NEMA and County government for policy guidelines and regulatory frameworks. The second category of stakeholder, are actors with a higher probability than any other to cause chaos in conflicts management if their needs are either ignored or not addressed.

The third category of stakeholder are keep-informed type whose interests in the project are high like shareholders and the sponsors, population in the neighbourhood to the waste management project site, project beneficiaries, environmentalism groups and special interest groups and may be severe opponents to it but have limited power to influence project decisions. The other category of stakeholders is the keep-satisfied group, who has got the ability and influence over project decisions and includes; the owners, government officials, donors and the reporters. This group is not actively involved in project implementation and normally they cause no conflict to the project as long as the ongoing project implementation meets their expectations. The fourth and last stakeholder category is known as minimal-effort stakeholder group. They have very low stake in the project and therefore pose the least risk and potential to cause conflicts. They have no voices in decision making as well as no power to influence the decisions made for instance the suppliers of the various project consumables, (Johnson and Scholes, 1999).

Globally, waste management Projects have become a major issue that affect the world's population as waste disposal is listed as one of the fifteen issues of the global environmental concerns by the United Nations, (UN-Habitat 2010). They degrade the environment and affect so many lives especially people in the neighbourhood and localities where waste management project sites are located. For instance India which is among the best in the world in preventing, reducing and managing healthcare, waste management in the City of Bangaluru experienced crisis in the late 1990s due to failed Solid Waste Management project led to deaths in five villages due to leachate contamination and asphyxiation (CPCB, 1998). When deaths are reported related to waste management, then project that deals with the Solid Waste Management will experience more conflicts from the stakeholders, (Ramachandra and Bachamanda, 2007).

The rising production of wastes due to increase and growth in world population has led to Solid wastes becoming a greater environmental problem as well as a public health risk to the exposed populations of the world. The fast growing commercial economies of the world every year generate Solid wastes in billions of tons. Most of these wastes putrefy into green house gas emission which then contributes to global warming. Others wastes also contribute environmental problems in blocking drainages, polluting water ways, anchoring pest and disease causing organisms and also reducing ambient air quality, UN-Habitat, (2010). This problem can become more complex when the various problems act in synergy creating an environmental and a public health crisis. The situation can further worsen if the solid wastes contain radio-active elements or carcinogenic emissions.

The solution to these Solid Waste Management problems is the minimization and management of solid waste and therefore various Solid Waste Management Projects should focus on recycling of wastes as

this will minimize solid waste related conflicts and subsequently enhance the Performance of Solid Waste Management Projects. Where wastes generation cannot be minimized, Solid Waste Management strategies such as recycling waste into secondary items should be employed and other recovery methods such as reuse after waste segregation. This will lead to substantial natural resource conservations in the long run, (UN-Habitat, 2010).

At the beginning of the 1990s, Asia has implemented numerous initiatives in Solid Waste Management Projects aimed to ease the burden of Solid Wastes. The World Bank funded Environmental Improvement Programmes in Metropolitans is lauded with improvements in Solid Waste Management in the large cities, like, Bombay, Jakarta, Beijing Colombo, Metro, Manila and, and Kathmandu. In the Period between the years 1994 and 1998, Local Solid Waste Improvement Project, funded by the Canadian Government through CIDA to a larger extent assisted Philippine, Thailand and Indonesian communities, in some concepts of Solid Waste Management, such as organizing clean-ups; setting up receptacles for recyclables; siting landfills; and capacity building on hazardous waste management to local stakeholders to improve their safety and sustainability of the Solid Waste Management projects.

According to Bruggers (2008), modernization of solid waste projects began in 1970s in 15 developed countries across the world because there was a rising challenge of ground and surface water contamination from solid wastes, either in the city or at the disposal of solid waste sites. Modernizations of Solid Waste Management Projects are usually designed to start with the phasing out of open dumps while climbing the disposal-upgrading hierarchy. This then findings in the shut-down of town dumps and a plan- often not easily realized for a long period of time, to develop and operate modern regional landfills. The landfills as compared to open dumpsites have a number of advantages as they completely cover the solid wastes thus preventing vermin, flies and scavengers associated with the dumpsites. However, Solid Waste Management project landfills pose the greatest risk to ground water by contaminating underground water source and if the wastes contains emissions that are in nature hazardous, then they can cause a serious irreversible damage (Bruggers, 2008) and as reported by Environmental Protection Agency EPA, (1980) on the Love canal disaster in the USA

Regionally, Africa, with an exponential population growth rates and increase in demand for consumer goods and consumption, a new collaborative approach to Solid Waste Management is necessary. Due to population increase in Africa and being the largest in the world, there is need to adopt technology and emulate other world leaders in Solid Waste Management. Like in Helsinki, Finland, the world's first robotic waste sorting plant where robots can detect recyclables among the other rubbish and United Arab Emirates, solar-powered rubbish bins with built-in modern technology have been invented

and erected in city to manage the solid wastes. (Gurdian-mail, 2018). Tanzania for example there have been initiatives of waste management projects with a clear focus on community integration initiative for the local Pare and Chagga tribes in Moshi. The outcome has been outstanding as the town has been voted as the cleanest town in the country for year

In Kenya, uncollected accumulated, putrefying and foul smelling heaps of garbage has led to a public outcry resulting in varied actions from Public/Private partnerships to implement Solid Waste Management initiatives. The current state of Dandora dumpsite which is the dumpsite that serves Nairobi is an example of the low standards of Solid Waste Management in the country when it comes to non- performance of Solid Waste Management related projects and environmental neglect currently prevailing. The rising tide of garbage is threatening a very fundamental right for every Kenyan guaranteed by the constitution to enjoy a healthy and clean environment devoid of pollutants. (Agong and Otom, 2015)

In Kisumu City, there are several Solid Waste Management projects that have been initiated by either County government of Kisumu, UN-Habitat or NGOs to solve the problem of urban solid wastes and environmental degradation emanating from the proliferation of solid wastes in the Urban Centres, (UN-Habitat report, 2010). Some of these projects are; KISWAMP a project designed and implemented Lake Victoria City Development Strategies (CDS) framework has the approach and training initiative for the enhancement of waste Management operations and stakeholders in the sector such as CBOs to efficiently manage solid waste affairs. Another Solid Waste Management Projects in Kisumu City is the Kisumu Urban Project (KUP) funded by the French Government through French Development Agency in aid of infrastructure expansion and social amenities. There is also the Kachok dumpsite relocation Project which is being undertaken by the County Government of Kisumu among others.

## **1.2 Statement of the Problem**

The appalling state of Solid Waste Management in cities and urban areas of the world has led to urban environmental degradation. This urban environmental degradation has further attracted the attention of the entire global environmental community who are now demanding for concerted efforts and global action from stakeholders to save the cities that are choking with solid wastes as a result of poor waste management due to failed Solid Waste Management Projects. UNEP lists Solid Waste Management among the fifteen global environmental issues that require global attention, approaches and partnerships to address. And as the world continue to experience rapid urbanization, industrialization and exponential growth in urban population, solid waste generation from industrial and domestic sources continues to grow to volumes that supersede their management potential. Solid Waste



Management Projects therefore are designed and aimed at mitigating the solid waste challenges in these urban environments in order to restore their health and ecological functions.

However, Solid Waste Management Projects do experience a lot of stakeholder conflicts that affect their performances as they do not meet the expectations of donors, project proponents, policy makers, project implementers and the project beneficiaries in addressing Solid Waste Management issues, (Kunreuther and Susskind, 1991). The below par performance of Solid Waste Management Projects is as a result of unending stakeholder conflicts in Solid Waste Management Projects that leads to cost overruns, poor quality project implementation that do not meet the project design specifications and behind schedule project implementation as projects fall several months and even years behind schedule. According to Ismodes (1997), the net effect of these leads to unsustainable implementation of Solid Waste Management Projects that fail to address the challenge of solid wastes in cities and urban environments.

Stakeholder conflict is common risk that affects Performance of Solid Waste Management Projects majorly because of the NIMBY(not in my backyard) concept that affects the choice and location of Solid Waste Management sites as stakeholders do not want Solid Waste Management Projects sites to next to be the homes, premises or neighbourhoods. This is probably because solid wastes produce leachates that pollute soils, ground water systems and also emit strong unpleasant odour that attracts flies and rodents, vermin and scavenger birds thereby causing serious public health risks, (Okumu, 2012). This can be witnessed at Kachok dumpsite which is just about 1.5Km from the Kisumu City CBD.

However with proper conflict management strategies being applied relevantly to the conflict situations in Solid Waste Management Projects, remarkable performance improvements have been recorded as the stakeholder conflict issues that derail implementation and subsequent Performance of Solid Waste Management Projects are comprehensively addressed either to the satisfaction or to near satisfaction of the stakeholder, William (1995).

### **1.3 Purpose of the Study**

The purpose of the study was to establish influence of stakeholder conflict management strategies on Performance of Solid Waste Management Projects in Kisumu City

### **1.4 Objectives of the Study**

The study was guided by the following five objectives;

- i. To establish the influence of avoiding Conflict Management Strategy on Performance of Solid Waste Management Projects in Kisumu City
- ii. To assess the influence of accommodating Conflict Management Strategy on Performance of Solid Waste Management Projects in Kisumu City

- iii. To investigate the influence of collaborating Conflict Management Strategy on Performance of Solid Waste Management Projects in Kisumu City
- iv. To determine the influence of competing Conflict Management Strategy on Performance of Solid Waste Management Projects in Kisumu City
- v. To evaluate the influence of compromising Conflict Management Strategy on Performance of Solid Waste Management Projects in Kisumu City

### **1.5 Research Question**

- i. To what extent does avoiding Conflict Management Strategy influence Performance of Solid Waste Management Projects?
- ii. To what extent does accommodating Conflict Management Strategy influence Performance of Solid Waste Management Projects?
- iii. To what extent does collaborating Conflict Management Strategy influence Performance of Solid Waste Management Projects?
- iv. To what extent does competing Conflict Management Strategy influence Performance of Solid Waste Management Projects?
- v. To what extent does compromising Conflict Management Strategy influence Performance of Solid Waste Management Projects?

### **1.6 Research Hypothesis**

1. H<sub>01</sub>: There is no significant influence between Avoiding Conflict Management Strategy and Performance of Solid Waste Management Projects
2. H<sub>02</sub>: There is no significant influence between Accommodating Conflict Management Strategy and Performance of Solid Waste Management Projects
3. H<sub>03</sub>: There is no significant influence between Collaborating Conflict Management Strategy and Performance of Solid Waste Management Projects
4. H<sub>04</sub>: There is no significant influence between Competing Conflict Management Strategy and Performance of Solid Waste Management Projects
5. H<sub>05</sub>: There is no significant influence between Compromising Conflict Management Strategy and Performance of Solid Waste Management Projects

### **1.7 Significance of the study**

The study is significant in that if the findings indicate that there is a degree of relationship between stakeholder conflicts management strategies and Performance of Solid Waste Management Projects in Kisumu City are implemented by the National government's Ministry of Environment and Forestry and

its agencies like NEMA and County government authorities, it will address stakeholder conflicts which have riddled Solid Waste Management Projects in Kisumu County and will therefore enhance the Performance of Solid Waste Management Projects in Kisumu City and especially the Kachok dumpsite relocation project which has stalled over the years due to unending stakeholder conflicts.

This study will also significantly contribute to the Kisumu County departments of Environment and Public health and Sanitation in formulation of Solid Waste Management policies and regulation acts that will be useful in guiding the sector in Solid Waste Management conflict issues.

### **1.8 Basic Assumptions of the Study**

The following key assumptions guided the study;

Stakeholder Conflict is a major factor that impacts on the Performance of Solid Waste Management Projects in Kisumu City. The data collected using data collection tools from the population sample study participants shall be representative of the conflicts issues that affect performance of solid waste projects in Kisumu City. Lastly, all the study participants were co-operative to researcher and that error due bias and non-response was limited and thus did not significantly affect the findings of this study.

### **1.9 Limitations of the study**

The study was limited in that;

The study focused on stakeholders' conflicts on Solid Waste Management Projects being implemented in Kisumu City while it overlooked the stakeholder conflicts in areas where the solids wastes are being disposed off in landfills or dumpsites that go beyond the boundaries of Kisumu City. Secondly, the study was limited to conflicts in solid wastes management projects and ignored liquid and gaseous wastes management projects which in most cases are implemented together with solid wastes management projects as waste management projects. It overlooked the facts that some liquid wastes like leachates originate from solid wastes and gaseous wastes such as methane also originate from the putrefying solid wastes

According to Mingkai, and Oluremi (2012), conflicts issues are always very emotive and behavioral and sometimes may lead to individuals' emotional breakdown when conflicts issues are re-opened. Therefore accessing accurate information on conflicts related issues was a challenge as the information is prone to distortion and filtering to fit the interests of the party giving it to portray the other parties as guilty of causing the conflict situation

### **1.10 Delimitations of the study**

The study was delimited by its scope in examining the influence of stakeholder conflict management strategies and Performance of Solid Waste Management Projects in Kisumu City but ignored conflict

resolution methods in Solid Waste Management Projects. The study also delimited itself as only focused on stakeholder conflict management strategies and performance Solid Waste Management waste projects within Kisumu City but ignored Solid Waste Management project conflicts on projects implemented in the City's peri-urban towns and areas. Finally the study also delimited itself to using questionnaire and interview guide as data collection tools and did not use other instruments like focus group discussion and observations.

### **1.11 Definition of significant terms used in the study**

As used in the study, the following terms mean;

**Stakeholders:** These are National Government Agencies, County Government department, Self Help groups, Opinion leaders, political leaders, Local Administrations, interest groups and the general public whose actions or daily lives are affected by or impacts on performance of Solid Waste Management Projects in Kisumu County

**Conflict:** A state of overlapping interests that result when parties are not able to agree or work harmoniously due to incompatibility of needs, goals, priorities, actions and aspirations.

#### **Avoiding Conflict Management Strategy:**

A method of conflict management where stakeholders involved in a conflict situation choose to ignore, withdraw from the existing conflict and pursue other matter that is of more importance and high value to them, disengage through inaction and postponement of action

#### **Accommodating Conflict Management Strategy:**

A method of conflict management where all stakeholders involved in a conflict situation come together to smoothen their differences, yield to each other's demand, negotiate oblige and form coalitions

#### **Collaborating Conflict Management Strategy:**

A method of conflict management where there is cooperation between stakeholders in a conflict situation integrating their ideas, opinions and needs to solve their differences, working as a team to solve their problems and reach to agreement

#### **Competing Conflict Management Strategy:**

A method of conflict management where stakeholders involved in a conflict confront the situation using their authority and power to force, confront, coerce, dominate and contend and whoever wins takes it all

**Compromising Conflict Management Strategy:**

A method of Conflict Management where stakeholders involved cede their demands through bargains, moderating and consideration in order to accommodate the interests, needs, opinions and standpoints of others

**Performance of Solid Waste Management Project:**

Refers to level at which the implementation of the project meets the set quality standards, timelines, projects costs, beneficiary satisfaction and sustainability

**1.12 Organization of the study**

The Study has been organized in 5 chapters with Chapter 1 outlining introduction, then background of the study, problem Statement, study's Purpose, objectives of the study, Research questions, Hypothesis, Significance of the Study, Basic assumptions of the study, Limitations of the study, Delimitations of the study, Definitions of significant terms used in the and the study's organization of the study in that order.

Chapter two comprises of; Review of related Literature under which there is introduction, related literature reviewed on dependent variable theme, related literature reviewed on independent variable theme. Related literature reviewed on theme of objective one that has both independent and dependent variables. Review of related literature on theme of objective two with both independent and dependent variables. Related literature review on theme of objective three that has both independent and dependent variables. Related literature reviewed on theme of objective four that has both independent and dependent variables and related literature reviewed on theme of objective five that has both independent and dependent variables. Theoretical framework, Conceptual Framework, knowledge gaps and Summary of literature all constitute this chapter.

Chapter Three comprises of; introduction, Research design, target population, sample size and sampling procedures with sub-sections on sample size and sampling procedures, research instruments with sub-sections on pilot testing of the instruments, validity of the instruments and reliability of the instruments, then data collection procedures, data analysis techniques, ethical considerations and operationalization of the variables.

Chapter four comprises of; introduction, questionnaire return rate, demographic attributes of the study participants, data organization, analysis and presentation under which there will be pre-processing, data coding and storage. Under data analysis, there will be Qualitative data analysis and then quantitative data analysis using both inferential and descriptive statistical techniques. Then data Presentation was done using tables and systematically discussed according to dependent variable theme, theme of

objective research one, theme of objective research two, theme of objective research three, theme of objective research four, and theme of research five. Chapter five being the last chapter comprises of introduction, Summary of findings, conclusions and recommendations made, suggestions for further research and the research's contributions to the body of knowledge.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

#### **2.1 Introduction**

This chapter reviewed related literature on the following thematic areas; related literature on Performance of Solid Waste Management Projects, related literature on Stakeholder Conflict Management Strategies, related literature on Avoiding Conflict Management Strategy and Performance of Solid Waste Management Projects, related literature on Accommodating Conflict Management Strategy and Performance of Solid Waste Management Projects, related literature on Collaborating Conflict Management Strategy and Performance of Solid Waste Management Projects, related literature on Competing Conflict Management Strategy and Performance of Solid Waste Management Projects and related literature on Compromising Conflict Management Strategy and Performance of Solid Waste Management Projects. The chapter also presents Conceptual and Theoretical frameworks, knowledge gaps as per the literature reviewed and Summary of Literature.

#### **2.2 Performance of Solid Waste Management Projects**

The standard measure for project performance is the evaluation of the project against the design parameters of schedule (time), budget (cost), scope, and quality, sustainability and impact. Based on the evaluation outcome of these design parameters, the project performance can then be effectively determined (Atkinson, 1997). The parameters of cost, quality and time in project management are referred to as the triple constraints, iron triangle, or three-legged stool parameters of project management. Project performance is therefore a factor of totality interplay between the design parameters that lead to project output and do not just mean the completion of the project itself. (De Wit, 1988). De Wit further alludes that the performance of a project can be determined from two ends; the project deliverables on the project end and the project deliverables as perceived by the stakeholders, (stakeholder satisfaction). Performance is thus used to imply either project success or failure as compared to the project objectives deliverables. Ballantine et al., (1996); Delone and McLean, (1992, 2003) in their views argue that project success is a metric of the feedback that is received from the project by the stakeholders. Two scholars, Pinto and Slevin (1988), defines success of a project as the ability of the project itself as measured against triple-constraints of cost, time and quality and the success of the stakeholders by the project effectively satisfying their needs for which the project was designed, implemented and evaluated. These scholars however fail to recognize important parameters of project success in Sustainability and if the project is a development project a critical success factor (CSF) of Rate of return on investment (ROI) is also overlooked.

Kerzner (2011), added two key dimensions to project performance that the project should be implemented without changing the normal workflow of the organization as well as its culture while Shenhar, Levy and Dvir (1997), maintains that performance will be determined whether the scope is accomplished within the constraints of time, quality and cost. De Wit (1988), weighs in the argument and states in his work that difference exists in Project Management success and project success. He argues the difference as; project management success only takes into consideration the triple constraints as Key performance indicators (KPI) while Project success goes beyond the triple constraints to include the degree to which it satisfies the observes projects lack a universal measure for performance of success or failure therefore using key performance indicators to evaluate their performance in a common practice in project management. Tools like Earned Value Management (EVM) methods as is advanced by William (1995), have been developed to evaluate against the triple constraints. This however ignores important CSF like sustainability, relevance and impacts leading to beneficiary satisfaction.

Pinto and Slevin (1988), Delone, De Wit (1988), Ballantine et al (1996), Shenhar et al (1997), among others agrees that timeliness, cost effectiveness and quality in terms of relevance and impact all the key performance indicators of any project. However if iron triangle indicators of cost, time and quality are the only factors considered as the CSF, then they are only referring to project performance at the delivery stage and not the entire project life cycle (PLC). Stuckenbruck (1987) deduces that for one to accurately and correctly measure performance as a variable of a project, post-delivery stage of the project should as well be evaluated in order to determine beneficiary satisfaction, ROI if the project was a development or a product development project and its sustainability. This when done, will thus give a precise measure of performance of an implemented project.

Friedmann and Beguin (1971), denotes that stakeholder conflicts in projects directly affects performance by consuming time, inflating costs, lowering quality and reducing impact and sustainability. Xiaohua and Germain (1998), in their study of performance of business venture projects found out that project are highly dependent on the effective management of conflicts and therefore depending on the situation at hand, the five TKI in the Thomas-Kilmann MODE should be apply according to how one perceives the conflict situation

### **2.3 Stakeholder Conflict Management Strategies**

The term stakeholder according to Freeman (1984) was first coined in 1708 as a person who holds stakes in a bet, while the current usage has evolved over the years to mean a person whose action



affects or is affected by the action of others while acting purposively to achieve a common goal. According to Roloff (1987), conflicts may occur when stakeholders hold behavioral, philosophical, ideological, economic, and technological preferences to be satisfied and that are incompatible with that of other parties. He further asserts that conflicts also occur when there is a resource that is short in supply but the demand for it is high therefore stakeholders have to compete for it in order to satisfy their perceived needs.

Stakeholder Conflicts also occur when there are perceived goals, objectives, aims, interests, values, cultures and general purposes that exist in a manner that is incompatible from different stakeholders (Kriesberg, 1973). Mulu (2002), in his submission indicates that differences in resource allocation, power structures and wide gaps in social classes and institutions and inequalities are highly likely to triggers conflicts in any given community.

According to Rahim, (1992), he unpacks conflict as the process of interaction that exhibits and reveals incompatibility between the needs of individuals, groups and organizations.(Friedman et al.,2000) asserts that conflicts escalates when different individuals or groups have got their own agenda to pursue in a conflict situation. Each conflict situation therefore has got their unique dimensions, with stakeholders that differ from another conflict situation. The impacts of these conflict situations are far reaching because they affect time, cost, quality and human resource as key project resources. Putnam, and Poole (1987), synthesized conflicts into three forms that included, interpersonal, intergroup and inter-organizational. This classification however has ignored vital facts that are evident from literature reviewed by other scholars such as Checkland earlier in (1987), and even Mitchell et al.'s later in (1997), confirms that stakeholder conflicts cannot only be interpersonal, intergroup and inter-organizational but can also be intrapersonal, intra-group and intra-organizational. The matrix can be complex in waste management projects as the stakeholders are multivariate. Despites these many assertions and scholarly worldviews on conflicts by researcher , the researcher finds no clear epistemology and well documented business cases on stakeholder conflicts on Solid Waste Management Projects. What many scholars like, (Kriesberg, 1973). Mulu (2002), Rhenman (1994), and Checkland (1987), among others have tried to put into perspective in their academic writings, is organizational conflict while it only Mitchell et al.'s later in (1997), who dealt with stakeholder conflicts and in 2004, the Institute of Project Management (IPM) wrote on how conflicts as risks impacts projects performance. Raz (2002), studied risk and concluded that projects are never devoid of risks such as conflicts however it is how well they are managed that will determine the performance of a particular project.

## **2.4 Avoiding Conflict Management Strategy and performance of Solid Waste Management Projects**

This strategy of managing stakeholder conflicts is used when the benefits of non-confrontation of other opposing stakeholder outweighs the benefits of mediating the conflict and therefore one chooses to avoid engaging the other parties in conflict circuit by not negotiating with them( Midriff, 1998). It is a lose, / lose outcome situation and is most suitable when the emotions are high and that can easily escalate into a fight between the parties and is very appropriate when the stakes are low and avoidance supersedes the benefits of the fight. According to a study by Kilmann (2015), this strategy is normally employed when it is not harmful deferring the situation and when there is no immediate concern over the consequences of not dealing with the situation at the earliest possible present time. When there are only two parties involved in a conflict situation and one party withdraws their interest from by avoiding a threatening situation, it could mean the conflict does no longer exist.

According to Thomas and Kilmann (2015), findings on circumstances when avoiding as a Conflict Management Strategy is most useful and appropriate, they denote that avoidance is applied in conflict management when the issue at hand in Solid Waste Management Projects is trivial and the time should be better spent elsewhere. Avoidance Conflict Management Strategy is also appropriate when there is not enough time, opportunity and conducive environment to constructively engage the stakeholders in the issue from which the conflict is arising, when there is need to gather more information on the conflict as well as when it is very appropriate to give stakeholders time to cool off their high emotions. And when there are others who are more relevant, resourceful, knowledgeable, experienced and better placed than you to resolve the conflict.

According to Rahim (2002), avoiding Conflicts management strategy is not a problem solving strategy and therefore if not properly used can lead to a fully blown conflict that might become very difficult and expensive to resolve, manage and mitigate. Consequently avoiding strategy should be minimally and carefully applied in stakeholder conflict management for it does not provide a solution but defers a solution.

According to research conducted by Ken-oichi (2010), he found out that avoiding strategy is preferred by Asian people in managing organizational conflict due to its unassertive nature. This is so because it does not impair or severe the close relationships and associations between individuals, parties, stakeholders and group for future partnerships and businesses as compared to other assertive modes of conflict management strategies.

## **2.5 Accommodating Conflict Management Strategy and performance of Solid Waste Management Projects**

This is non-assertive and co-operative behavior that directly contradicts competing strategy as the parties in conflict cede their position and interests and yield to others point of view or order to satisfy the interests of the others in the conflict situation to achieve a favorable result that is a win-win situation for the majority if not all of the parties.

According to Xin-an *et al* (2011), from their study confirms that this strategy is most useful when the stakeholders would want to preserve and maintain good rapport and future working relationships between them and also when the solution lies with the other parties in the conflict situation.

A study conducted by Ayub (2017), found out that conscientiousness, openness and emotional stability of stakeholders in a conflict situation have a direct bearing on performance of solid waste projects and out that accommodation is mostly used when one with authority and power realizes they have dominated the situation and the other parties feel like they want to withdraw yet the person with authority and power cannot do without them. Therefore this can be perceived to be a reward strategy for potential losers in a conflict situation to make to make stakeholder with limited salience feel their interests are also taken care of.

Behrens (2015), pointed out that accommodating Conflict Management Strategy is mostly when you realize that continued competition would damage the relationship between the conflicting parties and is also good to focus on working together in synergy with others. However he also warns that over-using this strategy can lead to other stakeholders exploiting the situation as they will always think that their interests will be accommodated even when they are less important than yours. He further warns that even when you decide to accommodate the needs, goals and aspiration of other stakeholders in the conflict circuit, you should never overlook your own goals, interest, opinion and objectives to achieve. In Solid Waste Management project accommodating strategy when employed is likely to lead to low project performance against time KPI since there so many stakeholders involved and striving to accommodate all their interests will consume a lot of time while losing focus on the key issue. Here using Competing strategy with authority and power could be used to save time and the situation.

## **2.6 Collaborating Conflict Management Strategy and performance of Solid Waste Management Projects**

This process involves bringing parties involved in a conflict situation together and often requires more time from all parties involved in order to take care of their interests. It therefore requires the use of a neutral skilled arbitrator who will employ his skills in negotiating with the parties to agree and strike a deal on the contentious issues that fuel the conflict. Without a neutral skilled arbitrator the groups

might not be able to overcome their mistrust and therefore bringing them to work together might be a tall order, (Rasmussen and Brunson, 1994).

A study conducted by Cai and Fink (2010), revealed that collaborating Conflict Management Strategy is most preferred in cross cultural Conflict Management Strategy as it takes interest of all the parties however slow it is. Collaborating strategy is suitable when; the situation at is not urgent therefore there is time to work on modalities of cooperation, an important all inclusive decision has to be made by all the stakeholders involved, the conflict involves a large number of stakeholders, or people across different teams groups and diverse background and lastly Previous conflict resolution attempts have failed and thus there is need to pull together.

However, findings of a study conducted by Wilmot et al (2011), collaborating strategy is not helpful in conflicts situations when; a faster agreement has to be reached and when the matter is trivial to all stakeholders involved. Wilmot found out that collaborating strategy is the method with the highest preference in conflict management because it improves the organization performance of projects. This corroborates Cai and Fink (2010) findings that as well holds that collaborating strategy is the most applicable in conflict situations as the interest of the parties in conflict are taken care of, though they may not be effective in all conflict cases. Collaborative process involves making all the stakeholders to actively take part in the process of cohesion and peace building.

According to (Field 1997), all the stakeholders in collaborating strategy should be given an opportunity to participate in decision making process on issues that affects them. And this process to be successful, those involved should be open and freely able to share information on issues affecting them and their position and this will also promote mutual trust and understating between the parties. In the event that communication, mutual trust, and empowerment can neither be built nor established, experience shows that third party processes will have to be involved to undertake the process.

## **2.7 Competing Conflict Management Strategy and performance of Solid Waste Management Projects**

This conflict strategy of conflict management focuses on one's own interest and totally disregards the concerns of the other parties involved in the conflict situation (Carnevale and Isen, 1986)

Competing or forcing as a Conflict Management Strategy means dealing with the conflict virtually and can involve the use of force and power. The direct involvement of those affected is limited, and the management and negotiation style changes from one of collaboration to one of power. Whoever has the greatest power to influence and force on the third party, controls the process and will basically lead in the implementation of their policies as per their position, (Rasmussen and Brunson, 1994),

According to a study by Mingkai and Muirongo (2011), Competing thus is an assertive and uncooperative, a power-oriented behavior that focuses on own selfish interest of parties at the expense of the rest with the aim of outcompeting the them leading to the winner takes it all situation. It is thus power oriented and makes one feels superior over the rest. Competing strategy is like a zero sum game that will result into a win-lose situation and its applicability is very limited to a few conflict situations and mostly emergency cases (Brunson, 1994)

According to the findings of a study conducted by Xin-an *et al* (2013), Cooperative behavior was found out to be the most appropriate Conflict Management Strategy as the benefits accrues for all and not just an individual as compared to the competing assertive strategy. While competing might be effective when the conflict just exist between two parties, it might be disastrous when it involves a number of stakeholders who require to be consulted and be involved in the issue at hand or else their withdrawal if they hold a mutually exclusive position would result into the project collapsing.

According to a study conducted by Gunkel, Schlaegel, and Taras (2016), found out that personality traits of individual stakeholders determine the conflict experience in terms of intensity, scope and the management strategy. It corroborates that if the stakeholders are too aggressive then competing strategy should be used by those in authority and power to manage the Solid Waste Management Projects. Competing strategy therefore applies when stakeholders who are beneficiaries are likely to suffer from the project stalling dues to conflict from implementers.

## **2.8 Compromising Conflict Management Strategy and performance of Solid Waste Management Projects**

This according to Freeman (1984), is an intermediate behavior between assertiveness and cooperativeness and thus seeks to find a middle ground that satisfies partially the interests of the parties in the conflict situation. Compromising can be deduced to mean therefore ceding more than competing strategy would entail but not more than accommodating would.

Compromising conflict strategy according to Rahim (2002), is useful in situations and instances when the goals, the needs, the aspirations and the interests of the conflicting parties are mutually exclusive and thus one party cannot pursue their interest without the other.

In a study conducted by Thomas and Kilmann (2015) they found out that in any conflict situation, parties feel respected and they walk away satisfied when they are listened to even if not their concerns fully considered as there is no party that achieve their original goal. It is worth noting that this strategy will lead to achieving a goal that is lesser than the project objectives and this will in turn affect the project performance.

According to Eilerman (2006), supposes that compromising is referred to as a win/ lose agreement in the Mouton-Blake Managerial Grid because there are a number of factors such as use of power and influence, time, cost, trust and good will which are involved before reaching a compromise deal between the parties. According Wilmot et al (2011), Compromising is a highly time consuming and conflict parties preferred other strategies because it also leads to dilution of the real goal and conflict issues of concern

## **2.9 Theoretical framework**

This study was anchored on the following 3 theories; Stakeholder theory, Game theory and Theory of Constraints.

### **2.9.1 Stakeholder Theory**

Stakeholder Theory was first developed in 1984 by Dr. F. Edward Freeman, in his book "Strategic Management: A Stakeholder Approach". It holds that shareholders are just one of the many stakeholders in an organization and are therefore people who are, affected or involved with a firm or the organization. Therefore business must strive to maximize the value of their stakeholders.(Mitroff, 1983).The employees, the media, financial institutions, vendors, governmental agencies, the suppliers, the customers, the consumers of the company products, the general public around the where the company is operating among others. This theory corroborates what many scholars like Freeman (1984), Rhenman, (1964), Checkland (1981), Hinds (1986), and (Mitchell *at al*, 1997), wrote when describing who stakeholders are. Freeman's Stakeholder's theory suggests that a company's performance and success will depend on how it handles, manages and satisfies its stakeholder's interests since all the operations of an enterprise depend on stakeholders.

There are different versions of the stakeholder theory that identifies stakeholder, their behavior and roles into different categories. The normative stakeholder theory of stakeholder identification identifies stakeholders of a firm including their morals and operational ethics. Descriptive Stakeholder theory that describes how a firm functions in the larger environment based on the premise that overlooking stakeholder interests is suicidal and unethical while instrumental stakeholder theory connects the stakeholders to the profitability objective of the firm. (Donaldson, and Dunfee, 1994). Stakeholder theory serves the following two roles; it describes the behavior of the firms and also to describe how the firm operates.

This theory therefore will be important to this research as it identifies various stakeholders, describes what their roles are, and demonstrates the interrelationships between them, the firms and the project organization. And it is this interrelationship between different parties that influence behavior and cooperation between the parties that leads to conflict and conflict management strategies.

### 2.9.2 Game Theory

Game theory was postulated by Oskar Morgenstern and John von Neumann in 1944 from an applied mathematics branch that contains tools for appraising situations and applicability in real life situations in which individuals involved here-in called players, make decisions that are related to their actions. The parties here can be likened to stakeholders in a conflict situation because their action affects others interdependently, (Straffin, 1993). This interdependence causes each stakeholder to consider other parties and possible actions, or strategies, in making their own strategy. All situations in which at least one party can only act to optimize his benefits at the expense of others in a situation where the resources are fixed and cannot be expanded while anticipating the response of other parties in a similar fashion is called a game. Parties involved in game are known as players. Each player in a game has got a choice to make among two or more possible decisions known as strategies leading to an outcome. A strategy is a predetermined mode of play and changes from time to time from one party to another. The main objective is to ensure that whichever strategy employed by a party, they maximize their utilities from it and this unfortunately is at the expense of others (Owen, 1968).

An example of game theory is the Prisoners dilemma in which two prisoners have got a choice to make and in whichever choice they make should maximally benefit him as an individual irrespective of the other prisoner's choice. The other example is the Shapley value of dividing gains which states that the contribution of a player in the game is determined by what is lost or gained by removing them from the game which is their marginal contribution, (Owen, 1968).

The theory explicitly anchors this study and is relevant as the parties or the players in the game theory are the stakeholders in the project and game being played is the implementation of the Solid Waste Management projects leading to an outcome measured through the performance. In any game for instance a game of football there are many stakeholders in players, in fans, in officials, in investors who expects a favorable findings and the possible outcomes are a win/ lose, a loss/ win , a draw or even a botched match without findings due to risks. Game theory advocates that we should not use same solution to a problem every time. It gives a multiples choice of option to apply like in a conflict management strategies we can adopt, Competing strategy, accommodating strategy , compromising strategy , avoiding strategy and collaborating strategy. It is therefore applicable in analyzing decisions made by stakeholders leading to conflicts in Solid Waste Management Projects or managing conflicts in Solid Waste Management Projects.

### **2.9.3 Theory of Constraints**

Dr. Eliyahu Goldratt first formulated this theory in 1980 in his book *The Goal*. He later focused his theory on project Management in 1997 in a book he authored entitled *öCritical Chainö*. ToC stipulates how to identify, manage and eliminate if possible the constraints that impede performance. The foundation of this theory is to identify the objectives of the organization, the constraints that hinder the achievement of those objectives, and then improve the operations by continuously striving to mitigate or eliminate these constraints. The constraints are called bottlenecks and at any one point an organization will be faced with one or more constraints which will have to be mitigated to improve its performance, (Cox, Jeff, and Goldratt, 2004)

In project Management, at the project delivery stage there are the three triple constraints factors of time, cost and quality these when not managed and balanced will impact negatively on the performance of a project. This theory therefore will guide this study in postulating on how the iron triangle constraints of performance should be managed to enhance the performance of Solid Waste Management project which have several stakeholders and therefore decision making process becomes long thereby stretching the time constraint which in turn stretches cost and scope constraints

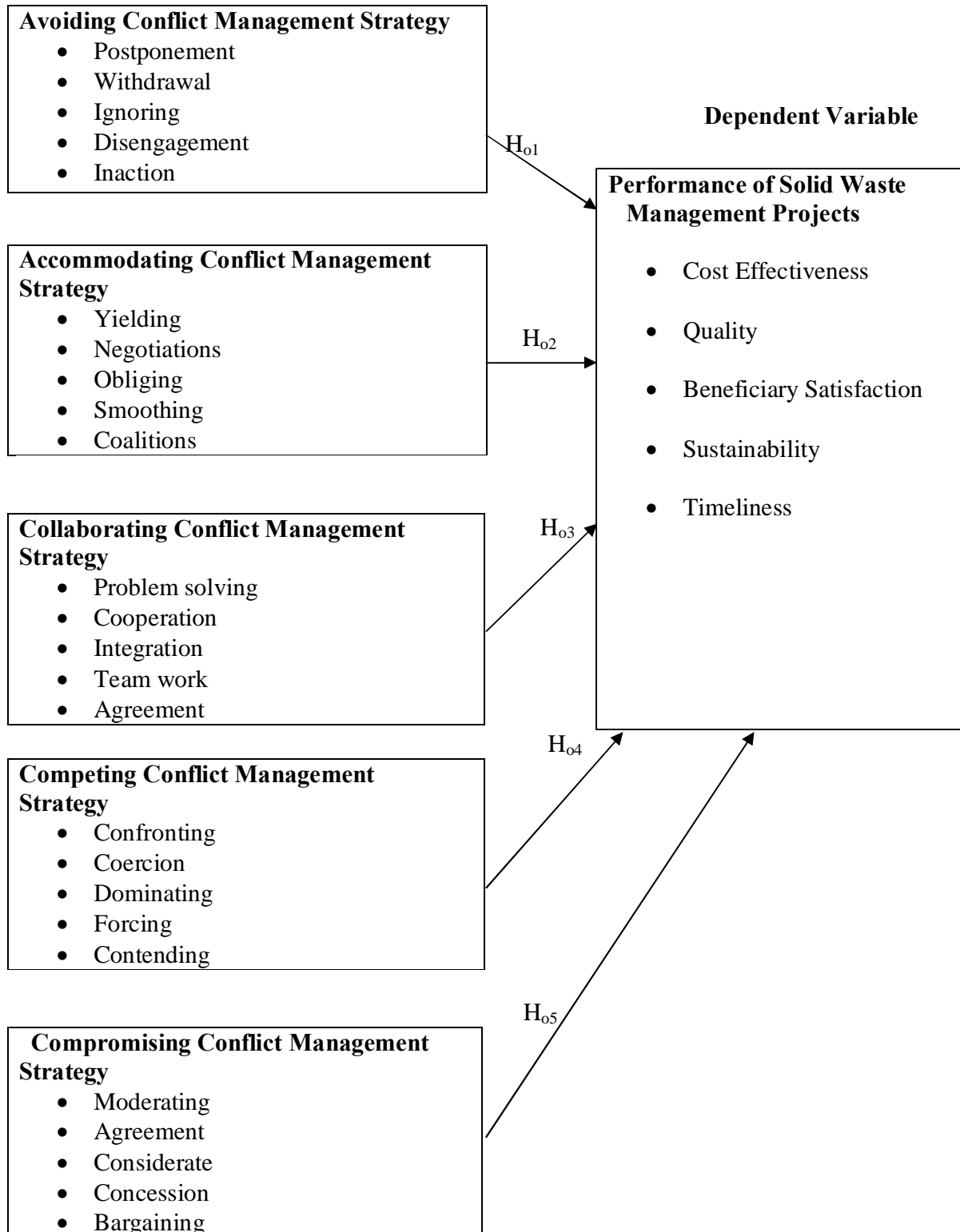
### **2.10 Conceptual Framework**

The study was grounded on the conceptual framework as is presented on figure 2.1 and which contains independent and dependent variables. The independent variable constitutes, Avoiding Conflict Management Strategy, Accommodating Conflict Management Strategy, Collaborating Conflict Management Strategy, Competing Conflict Management Strategy and Compromising Conflict Management Strategy while dependent variable constitutes Performance of Solid Waste Management Projects



## Conceptual Framework of the Study

### Independent Variables Stakeholder Conflict Management Strategies



**Figure 2.1 Conceptual Framework of stakeholder conflict Management Strategies and Performance of Solid Waste Projects**

The first independent variable of this study is avoiding Conflict Management Strategy. In this study, Avoiding Conflict Management Strategy is conceptualized as; Postponement, Withdrawal, Ignoring, Disengagement and inaction.

The second independent variable of this study is Accommodating Conflict Management Strategy. In this study, Accommodating Conflict Management Strategy is conceptualized as; Yielding, Negotiation, Obliging, smoothing and coalitions

The third independent variable of this study is Collaborating Conflict Management Strategy. In this study, Collaborating Conflict Management Strategy is conceptualized as; Problem solving, co-operation, integration, team work and agreement

The fourth independent variable of this study is Competing Conflict Management Strategy. In this study, Competing Conflict Management Strategy is conceptualized as; Confronting, Coercion, Dominating, Forcing and Contending

The fifth independent variable of this study is Compromising Conflict Management Strategy. In this study, Compromising Conflict Management Strategy is conceptualized as Moderating, agreement, Considerate, Concession and Bargaining

The dependent variable used of this study is Performance of Solid Waste Management Projects. Performance of Solid Waste Management project as used in this study is conceptualized as; Cost effectiveness, Quality, Beneficiary Satisfaction, Sustainability and Timelines

## **2.11 Summary of Literature**

Literature was reviewed on Performance of Solid Waste Management Projects. Empirical studies reviewed included studies by; Kerzner (2011), Atkinson (1997), and Delone and Mclean (2003). All the studies suggest that Solid Waste Management Projects experience performance challenges in their implementation and normally do not meet performance as determined by key performance indicators. It was also apparent from the literature reviewed that most scholars were only determining project performance at the project delivery stage using triple iron constraints of quality, time and budget but ignoring the post delivery stage of beneficiary satisfaction and sustainability

Literature was reviewed on Avoiding Conflict Management Strategy. Empirical studies reviewed included studies by; Kilman (2015), Ken-oichi (2010) and Rahim (2002). All the literature reviewed suggest that avoiding Conflict Management Strategy influence performance of projects

Literature was reviewed on accommodating Conflict Management Strategy. Empirical studies reviewed included studies by; Ayub (2017), Xin-an *et al* (2011), and Behrens (2015). All the literature reviewed suggest that accommodating management conflict strategy influence performance of projects

Literature was reviewed on Collaborating Conflict Management Strategy. Empirical studies reviewed included studies by; Cai and Fink (2010), Wilmont (2011), and Burton (1990). All the literature reviewed suggest that collaborating management conflict strategy influence performance of projects

Literature was reviewed on Competing Conflict Management Strategy. Empirical studies reviewed included studies by; Gunkel, Schlaegel and Taras in (2016) Xin-an *et al* (2013) and Munala and Muirongo (2011). All the literature reviewed suggest that competing Conflict Management Strategy influence performance of projects

Literature was reviewed on Compromising Conflict Management Strategy. Empirical studies reviewed included studies by; Cai Elerman (2006), Mulu (2008) and Mingkai and Oleremi (2012), All the literature reviewed suggest that compromising Conflict Management Strategy influence performance of projects

## 2.12 Knowledge Gaps

**Table 2.1: Knowledge Gaps**

Variables	Author/ Year	Title of study	Methodology	Findings of the study	Knowledge Gaps	Focus of the current study
Performance of Solid Waste Management Projects	I. Atkinson (1997)	Critical Success factors in project life cycle	Descriptive Survey Design	The study validated factors listed as critical to project success. They also discovered that these factors are not equally important at each phase of project implementation but rather their importance varies at different phases of project life cycle.	This study did not identify key performance indicators that are critical to post project implementation stage of Solid Waste Management Projects	This study seeks to determine key performance indicators of Solid Waste Management Projects
Performance of Solid Waste Management Projects	Kerzner, (2011)	Project Management Performance Assessment	Case study Design	The findings of the study were that; Cost, budget and scope are the only ones used to determine project performance.	The study failed to acknowledge beneficiary satisfaction and sustainability as parameters that are equally important in	

					determining project performance	
Performance of Solid Waste Management Projects	Delone (2003)	Measurement of project success	Descriptive Survey	The study found out that performance of a project is a complex parameter to determine as it varies and is subjective to stakeholders and should only be applied to a complete project or complete phase of the project	The study failed to determine what the critical success factors are at every phase of project implementation that will aggregate to determine its performance.	
Accommodating Conflict Management Strategy	Rahim (2002)	A measure of styles for handling interpersonal conflicts	Descriptive Survey design	The findings of this study was that a combination of concern for others and concern for self leads to five conflict management strategies	This study failed to address to what extent should we show concern for others over self since as you apply avoiding as a strategy, others gain at your expense	This study focuses on accommodating Conflict Management Strategy and Performance of Solid Waste Management Projects

Accommodating Conflict Management Strategy	Behrens (2015)	Understanding the Conflict styles- The accommodatin g mode	Descriptive survey design	The findings of the study were that accommodating strategy is best used when you want to consider all the stakeholders interests and there is need to build relationships for future partnerships	This study did not address the element of time as a constraint in project performance since for one to accommodate the interest of all the stakeholders, there must be enough time.	This study assesses the influence of accommodating conflict strategy and Performance of Solid Waste Management Projects
Collaborating Conflict Management Strategy	Cai and Fink (2010)	Conflict styles differences between individualists and collectivists	Cross-cultural study Design	The findings of the study were that, collaborating conflict style was the most preferred conflict management style by stakeholders across different cultures followed by compromising. Avoiding was the least preferred	These findings failed to disseminate information on which Conflict Management Strategy is most preferred in Solid Waste Management project where culture is not a factor of the stakeholder conflict situation	This study investigates influence of accommodating Conflict Management Strategy and Performance of Solid Waste Management Projects

Competing Conflict Management Strategy	Gunkel <i>et al</i> (2016)	Cultural values, emotional intelligence, and conflict handling styles	Cross-cultural Design	The findings of the study is that competing conflict strategy is used mostly situation where the other strategies have failed	The study failed to identify its impacts on the stakeholders support to the project.	This study determines influence of accommodating Conflict Management Strategy and Performance of Solid Waste Management Projects
Compromising Conflict Management Strategy	Eilerman (2006)	Use and misuse of competing conflict style in Conflict Management	Descriptive Survey Design	The findings were that proper use of Competing conflict style will lead to constructive outcomes while misuse of competing strategy might create new problems.	The study did not conclude on how the benefit of use competing strategy can be maximized at the expense of the negative outcomes	This study investigates influence of accommodating Conflict Management Strategy and Performance of Solid Waste Management Projects

## CHAPTER THREE

### RESEARCH METHODOLOGY

#### 3.1 Introduction

The research Methodology chapter presents the methodology and design adopted in conducting this study. It thus presents; research design, target population, sample size and sampling procedures, research instruments, reliability and validity of the research instruments, data collection procedures, data analysis techniques, ethical considerations and operationalization of the variables.

#### 3.2 Research Design

Research design is defined as the sequential steps for collection and analysis of data using a method that inco-operates both problem solving in research with the research purpose Orodho, and Kombo, (2002). The study adopted descriptive Survey research design as it employed both qualitative and quantitative approaches to data collection to describe behaviours by gathering respondent's perceptions, opinions, attitudes, standpoints, and beliefs about an existing situation

#### 3.3 Target Population

The study had a target a population of 244 people drawn within Electoral boundary of Kisumu City as indicated in table 3.1



**Table 3.1: Target Population**

Stakeholder Group	Target Persons	Population	Sample
CGK	Department of Environment	30	19
NEMA- Kenya	Law enforcement	10	6
Youth Groups	Registered prequalified groups (Officials)	100	62
Local Administration	Chiefs and Assistants	12	8
Municipal Market Leaders	Elected officials	10	6
Waste Collectors	Officials	30	19
Business owners within CBD	Management	10	6
KISWAMP Project office	Project Managers	12	8
Environmental Lobby Groups	Officials	10	6
NGOs	Management	10	6
Manufacturers	Management	10	6
<b>TOTAL</b>		<b>244</b>	<b>152</b>

**Source; Government departments of Gender, Youth and Social Development, County government of Kisumu Department of Environment (2019)**

### 3.4 Sample Size and Sampling Procedures

According to Kothari, and Garg, (2014), Sampling size refers to the number of individuals to be picked from the entire population for examination while sampling procedure is the method employed to select samples from a population. The sampling size and sampling procedure this study adopted are outlined in the subsequent sub-sections

#### 3.4.1 Sample size

This study adopted Yamane (1967), method for determining sample size from a finite population as indicated;

$$n = \frac{N}{1 + N(e)^2}$$

Where  $n$  = Sample size

$N$  =Population

$e$  = Level of significance at  $\pm 5\%$  (95% Confidence level)

And 1 is a constant

$$\text{Thus; } n = \frac{244}{1 + 244(0.05)^2} = 152$$

### **3.4.2 Sampling Procedure**

The study employed probability sampling as well non-probability sampling techniques. Systematic random sampling and Simple Random Sampling methods were applied under probability sampling, while purposive sampling method was used for non-probability sampling method

### **3.5 Research Instruments**

Self administered questionnaire as well as interview schedule were employed for data collection. The researcher used Likert scale rating questionnaire to collect data while interview schedule contained structured questions.

#### **3.5.1 Pilot Testing of instruments**

Before the actual study was conducted, piloting was conducted with the research instruments in Kakamega Town which was chosen because it also experiences related Solid Waste Management challenges and conflicts issues, to assess and evaluate them to establish if there are inconsistencies in data being collected and also if the tools are efficient and effective in collecting the intended data. Kakamega town was also chosen because according to Kothari and Garg, (2014) piloting should be done with a relevant population but not with the same sample chosen for the study as this may influence their behaviour, a phenomena known as indeterminacy principle. Kothari and Garg (2014), further contends that a sample of 10% of the sample size is enough for pilot testing, therefore 15 study participants from the sample size were selected using simple random method for pilot testing

#### **3.5.2 Validity of Instruments.**

Orodho, and Kombo (2002), define validity as how well an instrument collects the data it is designed to collect. If for instance the instruments designed to collect data on Conflict Management Strategy, then we do not expect the study participants to give us conflict resolution strategies instead. If this happens to be the case, then the validity of data is questionable. Content validity which according to Punch (1998), is concerned with relevance and representativeness of items through questions in a questionnaire was pretested by piloting. A sample of 10% of the sample size which translates to 15 study participants as described was used for piloting and construct and content validity were also be pretested by seeking expert opinions and having the instruments reviewed by my supervisors. Construct validity which according to Punch (1998), measures the interrelationships between variables was determined using factor analysis method which is a statistical procedure that shows the

interrelationships between characteristics, (Bryman and Cramer, 2004). It identifies clusters of variables that are closely linked together.

### 3.5.3 Reliability of Instruments

According to Orodho, and Kombo (2002), Reliability measures the consistency the findings from a test are. Therefore the research instruments should be highly consistent on the data they are used to collect. During piloting, the instruments were screened and for consistency and reliability and no adjustments were made accordingly because there was no need. The instruments were also subjected to reviews by my supervisors to get their expert opinions on them. The reliability of the instruments were also determined using Cronbach's alpha ( ) which according to Churchill Jr (1979), is the most reliable measure for reliability. Reliability alpha ( ) above 0.70 is acceptable, 0.80 or greater is preferred. Higher reliability is even better, while reliability alpha ( ) of less than 0.70 is questionable (Cortina, 1993) . The reliability alpha ( ) for this study was found to be 0.83 which was a good reliability measure.

Cronbach's alpha ( ) reliability formula, (Cortina 1993).

$$\alpha = \frac{N \cdot \bar{C}}{\bar{V}(N-1) + \bar{C}}$$

Where;

$N$  = The number of items,

$\bar{C}$  = The average inter-item covariance among the items

$\bar{V}$  = The average variance

### 3.6 Data Collection Procedures

After the University of Nairobi cleared the researcher to proceed to data collection stage, the researcher the applied to NACOSTI (National Commission for Science Technology and Innovation) for research authorization and permit granted on 27<sup>th</sup> June, 2019. The next step the researcher undertook was to notify County Commissioner for Kisumu County and County Director of Education for Kisumu County by submitting to them a copy each of the research letter of Research Authorization and permit from NACOSTI. Once the modalities with the government authorities were completed, then the data collection exercise commenced with pilot testing and then the actual data collection in the research area.

The questionnaires were administered to the study participants then the interview schedule after which they were collected for analyses.

### **3.7 Data Analysis Techniques**

After collecting the raw data, it was cleaned, edited, coded, classified and stored in the spreadsheet in readiness for analysis. SPSS (Statistical Package for Social Sciences) was employed as a tool for data analysis. This package analyzed data using descriptive statistics techniques of arithmetic mean and SD while inferential statistical analysis techniques was used to analyze regression and Pearson's correlation analyses. The data has been presented using tables.

### **3.8 Ethical Considerations**

According to Orodho, and Kombo (2002), the researcher should conduct their research in a manner that must respect the moral principles, the values, norms and the culture of the research participants. These ethical issues therefore that the researcher did undertake to uphold included; maintaining confidentiality when dealing with sensitive information about the study participants, seeking informed consent of the study participants and voluntary participation of the study participants without coercion.

### **3.9 Operationalization of the Variables.**

The variables of the study were operationalized as indicated in Table 3.2

**Table 3.2: Operationalization of the Variables Table**

<b>Objective</b>	<b>Variables</b>	<b>Indicator</b>	<b>Measurement Scale</b>	<b>Research Approach</b>	<b>Type of Analysis</b>	<b>Tools of Analysis</b>
To establish the influence of avoiding Conflict Management Strategy PSWM in Kisumu City	Avoiding conflict management strategy	<ul style="list-style-type: none"> <li>• Postponement</li> <li>• Withdrawal</li> <li>• Ignoring</li> <li>• Disengagement</li> <li>• Inaction</li> </ul>	Ratio	Qualitative and Quantitative	Descriptive/ Inferential Statistics	Arithmetic mean, Standard Deviation, Regression and Pearson's correlation (r) Analyses
To assess the influence of accommodating Conflict Management Strategy on PSWM in Kisumu City	Accommodating conflict management strategy	<ul style="list-style-type: none"> <li>• Yielding</li> <li>• Negotiations</li> <li>• Obliging</li> <li>• Smoothing</li> <li>• Coalitions</li> </ul>	Ratio	Qualitative and Quantitative	Descriptive/ Inferential Statistics	Arithmetic mean, Standard Deviation, Regression and Pearson's correlation (r) Analyses
To investigate the influence of collaborating conflicts management strategy on PSWM in Kisumu City	Collaborating conflict management strategy	<ul style="list-style-type: none"> <li>• Problem solving</li> <li>• Co-operation</li> <li>• Integration</li> <li>• Team work</li> <li>• Agreement</li> </ul>	Ratio	Qualitative and Quantitative	Descriptive/ Inferential Statistics	Arithmetic mean, Standard Deviation, Regression and Pearson's correlation (r) Analyses
To determine influence of competing Conflict Management Strategy on Performance of Solid Waste Management Projects in Kisumu City	Competing conflict management strategy	<ul style="list-style-type: none"> <li>• Confronting</li> <li>• Coercion</li> <li>• Dominating</li> <li>• Forcing</li> <li>• Contending</li> </ul>	Ratio	Qualitative and Quantitative	Descriptive/ Inferential Statistics	Arithmetic mean, Standard Deviation, Regression and Pearson's correlation (r) Analyses

To evaluate influence of compromising Conflict Management Strategy on PSWM in Kisumu City	Compromising conflict management strategy	<ul style="list-style-type: none"> <li>• Moderating</li> <li>• Agreement</li> <li>• Considerate</li> <li>• Concession</li> <li>• Bargaining</li> </ul>	Ratio	Qualitative and Quantitative	Descriptive/ Inferential Statistics	Arithmetic mean, Standard Deviation, Regression and Pearson's correlation (r) Analyses
To determine Performance of Solid Waste Management Projects in Kisumu City	Project Performance	<ul style="list-style-type: none"> <li>• Cost Effectiveness</li> <li>• Quality</li> <li>• Beneficiary Satisfaction</li> <li>• Sustainability</li> <li>• Timeliness</li> </ul>	Ratio	Qualitative and Quantitative	Descriptive/ Inferential Statistics	Arithmetic mean, Standard Deviation, Regression and Pearson's correlation (r) Analyses

## CHAPTER FOUR

### DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSIONS

#### 4.1 Introduction

This chapter presents the findings of the study as per data collected, analyzed and the findings presented in tables and discussed as per the objectives of the study. It thus presents findings on questionnaire return rate, demographic attributes of the study participants, arithmetic mean and standard deviations on Performance of Solid Waste Management Projects. Arithmetic mean, standard deviation, correlation and regression analyses and hypothesis testing on Avoiding Conflict Management Strategy and Performance of Solid Waste Management Projects. Arithmetic mean, standard deviation, correlation and regression analyses and hypothesis testing on Accommodating Conflict Management Strategy and Performance of Solid Waste Management Projects, arithmetic mean, standard deviation, correlation and regression analyses and hypothesis testing on Collaborating Conflict Management Strategy and Performance of Solid Waste Management Projects. Arithmetic mean, standard deviation, correlation and regression analyses and hypothesis testing on Competing Conflict Management Strategy and Performance of Solid Waste Management Projects. And arithmetic mean, standard deviation, correlation and regression analyses and hypothesis testing on Compromising Conflict Management Strategy and Performance of Solid Waste Management Projects

#### 4.2 Questionnaire Return Rate

The study had a target population of 244 study participants and a sample size of 152 study participants determined using Yamane formula of 1967. A total of 152 questionnaires were self administered to the study participants and out of these, 149 were returned denoting a 98.03% return rate. The high questionnaire return rate was attributed to numbering the questionnaire and keeping a check-list of questionnaire number and place administered and thereby following it up. Again, it could have been attributed to the fact that 95.30% of the study participants were educated at least up to secondary school level and probably did not have any problem filing the questionnaire. Cooper, and Schindler (2008), recommend a return rate of 75% and above. They further noted that a higher response rate does not necessarily mean accuracy of research but the most important thing is the representativeness of the study participants as per the target population. This study therefore achieved both high return rate and representativeness which is highly desirable in research. Table 4.1 indicates questionnaire return rate

**Table 4.1: Questionnaire Return Rate**

<b>Questionnaires</b>	<b>Frequency</b>	<b>Percent (%)</b>
Number of Questionnaires Duly Filled and Returned	149	98.03
Number of Questionnaire not Returned	3	1.97
<b>Total Number of Questionnaires administered</b>	<b>152</b>	<b>100.0</b>

### **4.3 Demographic Characteristics of the Study participants**

This section presents the demographics characteristics of the 149 study participants who took part in the study. The study asked study participants questions on their sex, age bracket, marital status, highest level of education attained, major source of income, professional background and position held in the organization or business they do. The demographic information was considered important to this research as they were analyzed to determine the diversity and representativeness of study participants according to the aforementioned categories. The findings are presented in Table 4.2



**Table 4.2 Demographic Characteristics of Study Respondents**

<b>Sex</b>	<b>Frequency</b>	<b>Percent (%)</b>
Female	80	53.7%
Male	69	46.35%
<b>Total</b>	<b>149</b>	<b>100.0%</b>
<b>Age Group</b>	<b>Frequency</b>	<b>Percent (%)</b>
20 and below	03	2.0%
21-30	55	36.9%
31-40	51	34.2%
41-50	21	14.1%
51-60	16	10.7%
Over 60	03	2.0%
<b>Total</b>	<b>149</b>	<b>100.0%</b>
<b>Marital Status</b>	<b>Frequency</b>	<b>Percent (%)</b>
Single	62	41.6%
Married	75	50.3%
Separated	5	3.4%
Widowed	6	4.0%
Others	1	0.7%
<b>Total</b>	<b>149</b>	<b>100.0%</b>
<b>Highest Level of Education</b>	<b>Frequency</b>	<b>Percent (%)</b>
University Degree	90	60.4%
Diploma	28	18.8%
Certificate	9	6.0%
Secondary	15	10.1%
Primary	7	4.7%
Others	0	0%
<b>Total</b>	<b>149</b>	<b>100.0%</b>
<b>Major Source of Income</b>	<b>Frequency</b>	<b>Percent (%)</b>
Employed	56	37.6%
Unemployed	58	38.9%
Doing Business	26	17.4%
Farming	8	5.4%
Others	1	0.7%
<b>Total</b>	<b>149</b>	<b>100.0%</b>
<b>Professional Background</b>	<b>Frequency</b>	<b>Percent (%)</b>
Environmentalist	32	21.5%
Administration	26	17.4%
Management	12	8.1%
Manufacturing	6	4.0%
Education	10	6.7%
Health	12	8.1%
Business	38	25.5%
Others	13	8.7%
<b>Total</b>	<b>149</b>	<b>100.0%</b>
<b>Positions held in Organizations</b>	<b>Frequency</b>	<b>Percent (%)</b>
Senior Management	19	12.8%
Middle Management	30	20.1%
Junior Management	10	6.7%
Staff	21	14.1%
Chairman	21	14.1%
Secretary	14	9.4%
Treasurer	10	6.7%
Member	24	16.1%
Others	0	0.0%
<b>Total</b>	<b>149</b>	<b>100.0%</b>

On sex, the researcher asked study Respondents to state their sex as either male or female. Out of the 149 study participants who took part in the study, 69(46.3%) were males, 80(53.7%) were female. This was important to this study in order to determine first if both sexes were given equal probabilistic opportunity to participate in the study and second, to determine the level of participation for both sexes in various Solid Waste Management Projects. The findings indicate that 11(7.4%) more females took part in the study as study participants more than males. This could be as a result of female population being dominant in organizations and institutions that deal with Solid Waste Management Projects and thus the outcome. However the difference in female and male number of study participants who took part in the study has no effect on the findings of the study. The findings are presented in Table 4.2

On Age, the researcher asked study Respondents who took part in the study to indicate their ages. This was to establish the age distribution of the study participants and their level of participation on Solid Waste Management Projects. Out of the 149 study participants who took part in the study, 3(2%) were aged 20 years and below, 55(36.9%) were aged between 21-30, 51(34.2%) were aged between 31-40, 21(14.1%) were aged between 41-50, 16(10.7%) were aged between 51-60 while 3(2%) were aged above 60 years. Based on these numbers, it is evident that majority of study participants who took part in this study were between ages 21-40 at 106 (71.14%) and are therefore mature adults who are able to make informed decisions about Solid Waste Management Projects. Further it indicates that those actively involved in Solid Waste Management Projects were between ages 21 to 60 at 143(96%) while those who are either younger than 20 years or older than 60 years were only 6(4%). The Age structure distribution for the study participants is presented in Table 4.2

On marital status, the researcher asked study respondents to indicate their marital status as one of the demographic characteristics of the sample population. The researcher asked the study participants to indicate whether they are single, married, separated, widowed and also to specify if they did not fall in any of the aforementioned categories. Out of the 149 study participants who took part in the study, 62 (41.6%) were single those married were the majority at 75 (50.3%), those who were at some point married and are now separated were 5 (3.4%), windowed stood at 6(%) and others indicated as engaged were the least at 1(0.7%). For this study, marital status was important as those who are married are highly likely to handle Solid Waste Management Projects conflicts using a particular Conflict Management Strategy than those single or currently single. This is because they are experienced in handling marriage conflicts. The findings are presented in Table 4.2

On the highest level of education attained, the study enumerated the highest level of education attained by the study respondents who took part in the study. The study participants were asked to state their levels of education under the following categories; University Degree, Diploma, Certificate, Secondary,

Primary and others that did not exist in the preceding categories. Level of education was considered important to this study as it can influence decision making in applying a particular Conflict Management Strategy. Level of education can also determine positions held in organizations. People with higher educational levels are highly likely to hold positions of influence, power and authority as compared to people with low levels of education. Out of the 149 study participants who took part in the study, 90(60.4%) had at least a university degree, 28(18.8%) had a diploma, 9(6%) had a certificate, 15(10.1%) had secondary school education, 7(4.7%) had primary school level of education while 0(0%) respondent did not fit in any of the prelisted categories. This result therefore is a good evidence to show that majority of the study participants were literate and could handle issues on Solid Waste Management Projects. The findings are indicated in Table 4.2

On major Source of income, the researcher asked study respondents to indicate their major source of income. The study participants were to indicate whether employed, unemployed, doing business, farming and to specify any other major source of income which was not part of what had been listed in the preceding statements. This was important to this study as it would reveal where majority of study participants derived their incomes from and if that had a significant influence on Performance of Solid Waste Management Projects. Out of the 149 study participants who took part in the study, 56(37.6%) indicated that they were employed, 58(38.9%) were unemployed, 26(17.4%) were doing businesses, 8(5.4%) were involved in farming while 1(0.7%) belonged to the category of others with indication that the income was support from parents. The findings of distribution of study participants by major source of income are presented in Table 4.2

On Professional Background, the study asked study respondents to indicate their professional background under the following categories; Environmentalist, administration, Management, Manufacturing, Education, Health, Business and to specify any other if their professional background did not match any category that is listed herein above. This was important to this study as Solid Waste Management is majorly an environmental issue that cuts across many other disciplines such as business, manufacturing, health among others. However those with environmental background are advantaged in articulating the Solid Waste Management issues and this could possibly help manage conflicts in solid wastes management projects. Out of the 149 study participants who took part in the study, majority at 32(21.5%) had an environmental background and therefore could possibly articulate environmental issues and handle the conflicts well. 26(17.4) of the study participants had Administration background, 12(8.1%) had Management as a professional background, 6(4.0%) had Manufacturing as a professional background, 10(6.7%) had education as a professional background, 38(25.5%) had business as a professional background while others were 13(8.7%) who indicated that they either belong to Finance, Economics, Accounting, Engineering, Applied Mathematics, information Technology and Security as

professional backgrounds. The findings of distribution of study respondents by professional background are presented in Table 4.2

On Positions held by respondent in Organizations of work, the study asked study respondents to indicate position held at their places of work as either in Senior Management, Middle Management, Junior Management, Staff, Chairman, Secretary, Treasurer, Member or to specify any other if their positions did not belong to any of the category pre-listed above. This was important to this study as positions held in organizations determine decision making and influence levels of the said individuals. Of the 149 the respondents involved in the study, the findings indicate that 19(12.8%) of the study participants were holding senior management positions in their organizations, 30(20.1%) Middle management positions, 10(6.7%) Junior management positions, 21(14.1%) were just staff members, Chairpersons were 21(14.1%) Secretaries were 14(9.4%) Treasurers were 10(6.7%) members number stood at 24(16.1%) while none at 0(0%) did not fall in any of the categories pre-listed above. These findings show that the study respondents were fairly diverse in terms of positions held in organizations where they do work or head and there could be the reason why there are many conflicts in Solid Waste Management Projects. The findings are presented in Table 4.2

#### **4.4. Performance of Solid Waste Management Projects**

The dependent variable theme sought to determine the performance levels of Solid Waste Management Projects in Kisumu City. The findings of the descriptive statistics are as presented in Table 4.3

**Table 4.3: Descriptive Statistics on Performance of Solid Waste Management Projects**

<b>Item</b>	<b>Statement</b>	<b>Strongly Agree (5)</b>	<b>Agree (4)</b>	<b>Neutral (3)</b>	<b>Disagree (2)</b>	<b>Strongly Disagree(1)</b>	<b>Mean</b>	<b>SD</b>
Pfc1	Solid Waste Management Projects are implemented within the project cost and budgetary allocations	13(8.7%)	23(15.4%)	18(12.1%)	55(36.9%)	40(26.8%)	2.42	1.274
Pfc2	Solid Waste Management Projects achieve desired quality standards and technical specifications as per their design	5(3.4%)	25(16.8%)	25(16.8%)	65(43.6%)	29(19.5%)	2.41	1.184
Pfc3	Solid Waste Management Projects implemented do satisfy the intended beneficiaries	8(5.4%)	25(16.8%)	29(19.5%)	57(38.3%)	30(20.1%)	2.49	1.149
Pfc4	Solid Waste Management Projects implemented are sustainable	7(4.7%)	23(15.4%)	25(16.8%)	56(37.6%)	38(25.5%)	2.36	1.156
Pfc5	Solid Waste Management Projects are implemented in a timely manner	5(3.4%)	17(11.4%)	21(14.1%)	57(38.3%)	49(32.9%)	2.14	1.103
<b>Composite mean and Composite Standard Deviation</b>							<b>2.364</b>	<b>1.153</b>

Item pfc1 sought to establish if Solid Waste Management Projects are implemented within the project cost and budgetary allocations. Of the 149 study respondents 13(8.7%) Strongly Agreed, 23(15.4%) agreed, 18(12.1%) were Neutral, 55(36.9%) Disagreed while 40(26.8%) strongly disagreed. The mean rate for the item was 2.42 and a Standard Deviation of 1.274. Since these values were both greater than composite mean and composite standard deviation, this implies that the item influences the performance of Solid Waste Management Projects positively

Item pfc2 sought to establish if Solid Waste Management Projects achieve desired quality standards and technical specifications as per their designs. Of the 149 study respondents 5(3.4%) Strongly Agreed, 25(16.8%) agreed, 25(16.8%) were Neutral, 65(43.6%) Disagreed while 29(19.5%) strongly disagreed. The mean rate for the item was 2.41 and a Standard Deviation of 1.184. Since these values were greater than composite mean and composite standard deviation, this implies that the item influences the performance of Solid Waste Management Projects positively

Item pfc3 sought to establish if Solid Waste Management Projects implemented do satisfy the intended beneficiaries. Of the 149 study respondents 8(5.4%) Strongly Agreed, 25(16.8%) agreed, 29(19.5%) were Neutral, 57(38.3%) Disagreed while 30(20.1%) strongly disagreed. The mean rate for the item was 2.49 and a Standard Deviation of 1.149. Since the value of the mean was greater than composite mean and composite standard deviation was lesser than the standard deviation, this implies that the item influences the performance of Solid Waste Management Projects positively

Item pfc4 sought to establish if Solid Waste Management Projects implemented are sustainable. Of the 149 study respondents 7(4.7%) Strongly Agreed, 23(15.4%) agreed, 25(16.8%) were Neutral, 56(37.6%) Disagreed while 38(25.5%) strongly disagreed. The mean rate for the item was 2.36 and a Standard Deviation of 1.156. Since the value of the mean was less than composite mean and composite standard deviation was greater than the standard deviation, this implies that the item influences the performance of Solid Waste Management Projects negatively

Item pfc5 sought to establish if Solid Waste Management Projects are implemented in a timely manner. Of the 149 study respondents 5(3.4%) Strongly Agreed, 17(11.4%) agreed, 21(14.1%) were Neutral, 57(38.3%) Disagreed while 49(32.9%) strongly disagreed. The mean rate for the item was 2.14 and a Standard Deviation of 1.103. Since these values were less than both composite mean and composite standard deviation, this implies that the item influences the performance of Solid Waste Management Projects negatively.

The overall composite mean and composite Standard Deviation for performance of Solid Waste Management Projects was 2.364 and 1.153 respectively. This implies that the majority of the study participants either strongly disagreed or disagreed than those that either agreed or strongly agreed with statements on performance of Solid Waste Management Projects. This confirms that the performance of Solid Waste Management is generally low as the projects do not meet the technical specifications and quality standards, are not implemented within the cost and budgetary allocations, they do not satisfy the intended beneficiaries, they are not sustainable and are not implemented in a timely manner. These findings are in agreement with what Atkinson (1997) supposed to constitute Project performance as factors of totality interplay between the design parameters that lead to project output and do not just mean the completion of the project itself.

Confirming the stalemate that exists between County government of Kisumu and stakeholders who are waste collectors, one respondent narrated this;

*“The County Government of Kisumu want us to pay a fee in order to be allocated an area where to operate within in collecting solid wastes. We however feel that it is them who should pay us instead because we are cleaning the City which should be their sole responsibility. When we refuse to pay the fee, they resort to using ‘Ninjas’ (Street Urchins) whom they pay as little as Ksh. 50 to Ksh. 100 a day to buy food and gum to sniff and bar us from collecting the wastes. They further*

*harass us using the county askaris and sometimes arrest us thus we pay a bigger fine and we lose our livelihoods since we have nowhere to work and collecting the solid wastes from households for a small fee is what we do for a living”(Source, CGoK 1)*

The extract as reported above shows a dejected chiffonnier expressing what they go through in waste management processes in the hands of the Kisumu County government authorities and this represents a larger number with similar experiences.

#### **4.5 Avoiding Conflict Management Strategy and Performance of Solid Waste Management Projects**

The objective of this theme was to establish the influence of avoiding Conflict Management Strategy on Performance of Solid Waste Management Project in Kisumu City. The study participants were asked to rate statements on Avoiding Conflict Management Strategy and Performance of Solid Waste Management Projects in a scale of 1 to 5 in a descending order starting with 5 for strongly agree, 4 Agree, 3 Neutral, 2 Disagree and 1 Strongly Disagree. The findings of the descriptive statistics are as presented in table 4.4

**Table 4.4: Descriptive statistics on Avoiding Conflict Management Strategy**

Item	Statement	Strongly Agree (5)	Agree(4)	Neutral(3)	Disagree(2)	Strongly Disagree(1)	Mean	SD
Avs1	Stakeholders apply Postponement strategy to manage conflicts in Solid Waste Management Projects	37(24.8%)	63(42.3%)	32(21.5%)	12(8.1%)	5(3.4%)	3.77	1.021
Avs2	Withdrawal from the conflict situation helps in managing conflicts among stakeholders in Solid Waste Management Projects	34(22.8%)	50(33.6%)	25(16.8%)	27(18.1%)	13(8.7%)	3.44	1.264
Avs3	Ignoring conflicts is an effective strategy stakeholders apply to manage conflicts among them in Solid Waste Management Projects	16(10.7%)	44(29.5%)	27(18.1%)	41(27.5%)	21(14.1%)	2.95	1.254
Avs4	Disengagement from conflicts is used to manage conflicts in Solid Waste Management Projects	14(9.4%)	58(38.9%)	40(26.8%)	28(18.8%)	9(6.0%)	3.27	1.063
Avs5	Solid Waste Management project conflicts are effectively managed through inaction by stakeholders	18(12.1%)	38(25.5%)	45(30.2%)	27(18.1%)	21(14.1%)	3.03	1.222
<b>Composite Mean and Composite Standard Deviation</b>							<b>3.29</b>	<b>1.165</b>

Item Avs1 sought to establish if stakeholders apply postponement strategy to manage conflicts in Solid Waste Management Projects. Of the 149 study respondents (24.8%) Strongly Agreed, 63(42.3%) agreed, 32(21.5%) were Neutral, 12(8.1%) Disagreed while 5(3.4%) strongly disagreed. The mean rate for the item was 3.77 and a Standard Deviation of 1.021. Since the value of the mean was greater than composite mean and composite standard deviation was lesser than the standard deviation, this implies that the item influences the performance of Solid Waste Management Projects positively

Item Avs2 sought to establish if withdrawal from the conflict situation helps in managing conflicts among stakeholders in Solid Waste Management Projects. Of the 149 study respondents 34(22.8%) Strongly Agreed, 50(33.6%) agreed, 25(16.8%) were Neutral, 27(18.1%) Disagreed while 13(8.7%) strongly disagreed. The mean rate for the item was 3.44 and a



Standard Deviation of 1.264. Since the values of both the mean and standard deviation were greater than the values both the composite mean and composite standard deviation, this implies that the item influences the performance of Solid Waste Management Projects positively

Item Avs3 sought to establish if ignoring conflicts is an effective strategy stakeholders apply to manage conflicts among them in Solid Waste Management Projects. Of the 149 study respondents 16(10.7%) Strongly Agreed, 44(29.5%) agreed, 27(18.1%) were Neutral, 41(27.5%) Disagreed while 21(14.1%) strongly disagreed. The mean rate for the item was 2.95 and a Standard Deviation of 1.254. Since the value of the mean was less than composite mean and standard deviation was greater than the composite standard deviation, this implies that the item influences the performance of Solid Waste Management Projects negatively

Item Avs4 sought to establish if disengagement from conflicts is used to manage conflicts in Solid Waste Management Projects. Of the 149 study participants 14(9.4%) Strongly Agreed, 58(38.9%) agreed, 40(26.8%) were Neutral, 28(18.8%) Disagreed while 9(6.0%) strongly disagreed. The mean rate for the item was 3.27 and a Standard Deviation of 1.063. Since the values of both the mean and standard deviation were less than the values both the composite mean and composite standard deviation, this implies that the item influences the performance of Solid Waste Management Projects negatively

Item Avs5 sought to establish if Solid Waste Management project conflicts are effectively managed through inaction by stakeholders. Of the 149 study respondents 18(12.1%) Strongly Agreed, 38(25.5%) agreed, 45(30.2%) were Neutral, 21(14.1%) Disagreed while 21(14.1%) strongly disagreed. The mean rate for the item was 3.03 and a Standard Deviation of 1.222. Since the value of the mean was less than composite mean and standard deviation was greater than the composite standard deviation, this implies that the item influences the performance of Solid Waste Management Projects negatively

Avoiding Conflict Management Strategy according to the findings had a composite mean of 3.29 and a composite standard Deviation of 1.165. This implies that the majority of the study respondents either strongly agreed or agreed than those that either disagreed or strongly disagreed with statements on avoiding Conflict strategy. Thus avoiding is best applicable when there is time and stakeholders have more important issues to focus on than the conflict situation. Therefore when stakeholders avoid non issues and concentrate on issues that add value to Solid Waste Management Projects, their performances are enhanced. And this corroborates the findings by Rahim (2002) who in his study concluded that avoiding conflict strategy defers a solution but does not provide a solution.

#### 4.5.1 Correlation Analysis between Avoiding Conflict Management Strategy and Performance of Solid Waste Management Projects

Pearson's correlation analysis was used to determine the degree of relationships between avoiding conflict management strategies and Performance of Solid Waste Management Projects. The findings are presented in Table 4.5

**Table 4.5: Correlation Analysis between Avoiding Conflict Strategy and Performance Solid Waste Management Projects**

		Correlations	
Variable		Avoiding Conflict Strategy	Performance of SWMP
<b>Avoiding Conflict Strategy</b>	Pearson's Correlation	1	-0.229**
	Sig. (2-tailed)		0.005
	n	149	149
<b>Performance of Solid Waste Management Projects</b>	Pearson's Correlation	-0.229**	1
	Sig. (2 tailed)	0.005	
	n	149	149

**\*\*Correlation is significant at the 0.05 level (2-tailed)**

The findings of the correlation analysis between Avoiding Conflict Strategy and Performance of Solid Waste Management Projects as presented in Table 4.5 ( $r = -0.229$ ;  $P < 0.005$ ) indicate that there is a statistically significant negative weak correlation between avoiding conflict strategy and Performance of Solid Waste Management Projects. This implies that when you apply avoiding Conflict Management Strategy in Solid Waste Management Projects, the performance of solid management project decreases. The results of this study corroborates the findings of the study by Kilmann, (2015) in which he found out that this strategy is normally employed when it is not harmful deferring the situation and when there is no immediate concern over the consequences of not dealing with the situation at the earliest possible present time. Therefore this strategy has a limited application beyond which the negative consequences set in.

#### 4.5.2 Regression Analysis between Avoiding Conflict Management Strategy and Performance of Solid Waste Management Projects

Regression analysis was used to determine the degree of relationship and level of significance between Avoiding Conflict Management Strategy and Performance of Solid Waste Management Project. The findings are presented in Tables 4.6, 4.7 and 4.8

**Table 4.6 Model regression summary of Avoiding Conflict Management Strategy**

<b>Model Regression Summary</b>				
<b>Model</b>	<b>R</b>	<b>R2</b>	<b>Adjusted Square</b>	<b>Standard Error of the Estimate</b>
1	0.227 <sup>a</sup>	0.051	0.045	1.132

a. Predictor: (Constant), Avoiding Conflict Management Strategy

R2 is the proportion of variance in the dependent variable (Performance) which can be predicted from the independent variable (avoiding). This value indicates that 5.1% of the variance in performance can be predicted from the variable a avoiding Conflict Management Strategy.

**Table 4.7: ANOVA Regression Analysis between Avoiding Conflict Management Strategy and Performance of Solid Waste Management Projects**

<b>ANOVA<sup>a</sup></b>						
<b>Model</b>		<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Squares</b>	<b>F</b>	<b>Significance</b>
1	Regression	10.207	1	10.207	7.972	.005 <sup>b</sup>
	Residual	188.223	147	1.280		
	<b>Total</b>	<b>198.430</b>	<b>148</b>			

a. Dependent Variable: Performance of Solid Waste Management Projects

b. Predictors: (Constant), Avoiding Conflict Management Strategy,

The F statistic is the regression mean square (MSR) divided by the residual mean square (MSE). The Significance value of the F statistic is small (0.005 is smaller than 0.05) since the independent variable (Avoiding) explains the variation in the dependent variable.

**Table 4.8: Regression Coefficients between Avoiding Conflict Management Strategy and Performance of Solid Waste Management Projects**

<b>Coefficients<sup>a</sup></b>					
<b>Model</b>	<b>Unstandardized</b>		<b>Standardadized</b>	<b>T</b>	<b>Sig.</b>
	<b>Coefficients</b>		<b>Coefficients</b>		
1	<b>B</b>	<b>Std. Err</b>	<b>Beta</b>		
1(Constant)	3.333	0.356		9.363	0.000
Avoiding	-0.257	0.091	-0.227	-2.823	0.005

**a. Dependent Variable: Performance of Solid Waste Management Projects**

Looking at the P-value (0.005 is smaller than 0.05) of the t-test for the predictor, we can see that Avoiding Conflict Management Strategy is statistically significant in determining performance since it is contributing to the model.

#### **4.5.3 Hypothesis 1 Testing**

To determine the influence of Avoiding Conflict Management Strategy and Performance of Solid Waste Management Projects, the following null hypothesis was formulated;

$H_{01}$ : There is no significant influence between Avoiding Conflict Management Strategy and Performance of Solid Waste Management Projects

From the ANOVA regression analysis between Avoiding Conflict Management Strategy and Performance of Solid Waste Management project (Table 4.7), the calculated F statistics was found to be 0.005 which is less than the t-test table value which is at 0.05 at 95% confidence level. The F statistic value was therefore significant.

We thus reject the null Hypothesis that is no significant influence between Avoiding Conflict Management Strategy and Performance of Solid Waste Management Projects and retain the alternative hypothesis.

#### **4.6. Accommodating Conflict Management Strategy and Performance of Solid Waste Management Projects**

The objective of this theme was to assess the influence of accommodating Conflict Management Strategy on Performance of Solid Waste Management Projects in Kisumu City. The study participants were asked to rate statements on Accommodating Conflict Management Strategy and Performance of Solid Waste Management Projects in a scale of 1 to 5 in a descending order starting with 5 for strongly agree, 4 Agree, 3 Neutral, 2 Disagree and 1 Strongly Disagree. The findings of the descriptive statistics are as presented in Table 4.9

**Table 4.9: Descriptive Statistics on Accommodating Conflict Management Strategy**

Item	Statement	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Mean	SD
Acs1	Yielding to other stakeholderø demands is applied by stakeholders to manage conflicts in Solid Waste Management Projects	28(18.8%)	78(52.3%)	26(17.4%)	16(10.7%)	1(0.7%)	3.78	0.899
Acs2	Negotiations among stakeholders in the conflict situation is a method used to manage conflicts in Solid Waste Management Projects	27(18.1%)	64(43.0%)	29(26.2%)	15(10.1%)	3(2.0%)	3.79	0.990
Acs3	Obliging to other stakeholderø demands in conflict situations is used to manage conflicts in Solid Waste Management Projects	18(12.1%)	68(45.6%)	37(24.8%)	21(14.1%)	5(3.4%)	3.49	0.991
Acs4	Smoothing stakeholder differences is applied to manage conflicts in Solid Waste Management Projects	27(18.1%)	64(43.0%)	39(26.2%)	16(10.7%)	3(2.0%)	3.64	0.966
Acs5	Forming coalitions between stakeholders manages Solid Waste Management project conflicts	29(26.2%)	58(38.9%)	35(23.5%)	15(10.1%)	2(1.3%)	3.79	0.990
<b>Composite Mean and Composite Standard Deviation</b>							<b>3.698</b>	<b>0.9672</b>

Item Acs1 sought to assess if yielding to other stakeholderø demands is applied by stakeholders to manage conflicts in Solid Waste Management Projects. Of the 149 study respondents 28(18.8%) Strongly Agreed, 78(52.3%) agreed, 26(17.4%) were Neutral, 16(10.7%) Disagreed while 1(0.7%) strongly disagreed. The mean rate for the item was 3.78 and a Standard Deviation of 0.899. Since the value of the mean was greater than composite mean and standard deviation was less than the composite standard deviation, this implies that the item influences performance of Solid Waste Management Projects positively

Item Acs2 sought to assess if negotiations among stakeholders in the conflict situation is a method used to manage conflicts in Solid Waste Management Projects.

Of the 149 study respondents 27(18.1%) Strongly Agreed, 64(43.0%) agreed, 29(26.2%) were Neutral, 15(10.1%) Disagreed while 3(2%) strongly disagreed. The mean rate for the item was 3.79 and a Standard Deviation of 0.990. Since the value of the mean was greater than composite mean and standard deviation was also greater than the composite standard deviation, this implies that the item influences performance of Solid Waste Management Projects positively

Item Acs3 sought to assess if obliging to other stakeholder's demands in conflict situations is used to manage conflicts in Solid Waste Management Projects. Of the 149 study respondents 18(12.1%) Strongly Agreed, 68(45.6%) agreed, 37(24.8%) were Neutral, 21(14.1%) Disagreed while 5(3.4%) strongly disagreed. The mean rate for the item was 3.49 and a Standard Deviation of 0.991. Since the value of the mean was less than composite mean and standard deviation was greater than the composite standard deviation, this implies that the item influences performance of Solid Waste Management Projects negatively

Item Acs4 sought to assess if smoothing stakeholder differences is applied to manage conflicts in Solid Waste Management Projects. Of the 149 study respondents 27(18.1%) Strongly Agreed, 64(43%) agreed, 39(26.2%) were Neutral, 16(10.7%) Disagreed while 3(2%) strongly disagreed. The mean rate for the item was 3.64 and a Standard Deviation of 0.966. Since the value of the mean was less than composite mean and standard deviation was also less than the composite standard deviation, this implies that the item influences performance of Solid Waste Management Projects negatively

Item Acs5 sought to assess if forming coalitions between stakeholders manages Solid Waste Management project conflicts. Of the 149 study respondents 29(26.2%) Strongly Agreed, 58(38.9%) agreed, 35(23.5%) were Neutral, 15(10.1%) Disagreed while 2(1.3%) strongly disagreed. The mean rate for the item was 3.79 and a Standard Deviation of 0.990. Since both the value of the mean and standard deviation were greater than that of the composite mean and composite standard deviation, this implies that the item influences performance of Solid Waste Management Projects positively

The overall composite mean and composite Standard Deviation for accommodating conflict strategy was 3.698 and 0.9672 respectively. This implies that the majority of the study respondents either strongly agreed or agreed than those that either disagreed or strongly disagreed with statements on accommodating Conflict Management Strategy. The implication of this is that accommodation is important strategy in conflict management in Solid Waste Management Projects as confirmed by Behrens (2015), who pointed out that accommodating Conflict Management Strategy is mostly used

when you realize that continued competition would damage the relationships but synergy is needed for effective implementation of Solid Waste Management Projects.

Reporting on how acquiring a new location to transfer the Kachok dump site, one of the study participants stated that the county government has experienced obstacles with numerous court orders barring the project challenges from being implemented as the locals in the new dumpsite do not want solid waste near their backyards as quoted herein;

*“We have been committed to improving the quality of our environment in Kisumu City by moving the Kachok dumpsite away from the City but our efforts have been derailed by numerous court orders we have received by environmental lobby groups and others who are insinuating that by transferring the dumpsite, we are transferring the problem to others. However they do not consider the health risk the dumpsite has on the resident of Kisumu City, unless we learn to accommodate each other in Solid Waste Management Projects, we cannot achieve our desired goals and the intended beneficiaries will continue to suffer for a long period of time” (Source CGoK 2)*

The above extract as quoted depicts the challenge and need for accommodating each other for successful implementation of Solid Waste Management Projects. It shows stakeholders taking their conflicts to court because there is probably better redress than out of court settlement of issues by applying appropriate stakeholder Conflict Management Strategy in order to manage and address a conflict situation in Solid Waste Management Projects

#### 4.6.1 Correlation Analysis between Accommodating Conflict Management Strategy and Performance of Solid Waste Management Projects

Pearson’s correlation analysis was used to determine the degree of relationships between accommodating conflict management strategies and Performance of Solid Waste Management Projects. The findings are presented in Table 4.10

**Table 4.10: Correlation Analysis between Accommodating Conflict Strategy and Performance of Solid Waste Management Projects**

Variable	Correlations	
	Accommodating Conflict Strategy	Performance of SWMP
Accommodating Conflict Strategy	Pearson’s Correlation	1
	Sig. (2-tailed)	-0.187**
	n	0.024
Performance of Solid Waste Management Projects	Pearson’s Correlation	1
	Sig. (2 tailed)	-0.187**
	n	.022
		149
		149

\*\*Correlation is significant at the 0.05 level (2-tailed).

The findings of the correlation analysis between Accommodating Conflict Strategy and Performance of Solid Waste Management Projects as presented in Table 4.10 ( $r = -0.187$ ;  $P < 0.024$ ) shows that there is a statistically significant negative weak correlation between accommodating Conflict Management Strategy and Performance of Solid Waste Management Projects. This implies that when you apply accommodating Conflict Management Strategy in Solid Waste Management Projects, the performance of solid management project decreases. The findings of this study corroborates the findings of the study by Behrens (2015), pointed out that accommodating Conflict Management Strategy is mostly when you realize that continued competition would damage the relationship between the conflicting parties and is also good to focus on working together in synergy with others. However he also warned that over-using this strategy can lead to loss of valuable project time while trying to consider the needs, interests and opinion of others and losing focus on the issue at hand which is more important

#### 4.6.2 Regression Analysis between Accommodating Conflict Management Strategy and Performance of Solid Waste Management Projects

Regression analysis was used to determine the degree of relationship and level of significance between Accommodating Conflict Management Strategy and Performance of Solid Waste Management Project. The findings are presented in Tables 4.11, 4.12 and 4.13

**Table 4.11 Model regression summary of Accommodating Conflict Management Strategy**

Model Regression Summary				
Model	R	R <sup>2</sup>	Adjusted Square	Standard Error of the Estimate
1	0.185 <sup>a</sup>	0.034	0.028	1.257

a. Predictor: (Constant), Accommodating Conflict Management Strategy

R<sup>2</sup> is the proportion of variance in the dependent variable (Performance) which can be predicted from the independent variable (accommodating). This value indicates that 3.4% of the variance in performance can be predicted from the variable accommodating Conflict Management Strategy.

**Table 4.12: ANOVA Regression Analysis between Accommodating Conflict Management Strategy and Performance of Solid Waste Management Projects**

ANOVA <sup>a</sup>						
Model		Sum of Squares	Df	Mean Squares	F	Significance
1	Regression	8.216	1	8.126	5.202	0.024 <sup>b</sup>
	Residual	232.147	147	1.579		
	<b>Total</b>	<b>240.362</b>	<b>148</b>			

a. Dependent Variable: Performance of Solid Waste Management Projects

b. Predictors: (Constant), accommodating Conflict Management Strategy



The F statistic is the regression mean square (MSR) divided by the residual mean square (MSE). The Significance value of the F statistic is small (0.024 is smaller than 0.05) since the independent variable (Accommodating) explains the variation in the dependent variable

**Table 4.13: Regression Coefficients between Accommodating Conflict Management Strategy and Performance of Solid Waste Management Projects**

**Coefficients<sup>a</sup>**

Mode	Unstandardized	Standardized	T	Sig.
	Coefficients	Coefficients		
1	$\beta$	Beta		
1(Constant)	1.522		3.730	0.000
Accommodating	0.238	0.185	2.281	0.024

**a. Dependent Variable: Performance of Solid Waste Management Projects**

Looking at the P-value (0.024 is smaller than 0.05) of the t-test for the predictor, we can see that Accommodating Conflict Management Strategy is statistically significant in determining performance since its contributing to the model.

**4.6.3 Hypothesis 2 Testing**

To determine the influence of Accommodating Conflict Management Strategy and Performance of Solid Waste Management Projects, the following null hypothesis was formulated;

H<sub>02</sub>: There is no significant influence between Accommodating Conflict Management Strategy and Performance of Solid Waste Management Projects

From the ANOVA regression analysis between Accommodation Conflict Management Strategy and Performance of Solid Waste Management project (Table 4.12), the calculated F statistics was found to be 0.024 which is less than the t-test table value which is at 0.05 at 95% confidence level. The F statistic value was therefore significant.

We thus reject the null Hypothesis that is no significant influence between Accommodating Conflict Management Strategy and Performance of Solid Waste Management Projects and retain the alternative hypothesis.

**4.7 Collaborating Conflict Management Strategy and Performance of SWMP**

The objective of this theme was to investigate the influence of collaborating Conflict Management Strategy on Performance of Solid Waste Management Projects in Kisumu City. The study respondents were asked to rate statements on Collaborating Conflict Management Strategy and Performance of Solid

Waste Management Projects in a scale of 1 to 5 in a descending order starting with 5 for strongly agree, 4 Agree, 3 Neutral, 2 Disagree and 1 Strongly Disagree. The findings of the descriptive statistics are as presented in Table 4.14

**Table 4.14: Descriptive Statistics on collaborating Conflict Management Strategy**

Item	Statement	Strongly Agree(5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree(1)	Mean	SD
Cl <sub>s1</sub>	Stakeholders do practice problem solving in Solid Waste Management Projects conflicts	35(23.5%)	73(49.0%)	26(17.4%)	11(7.4%)	4(2.7%)	3.83	0.961
Cl <sub>s2</sub>	There is co-operation among stakeholder in managing Solid Waste Management Projects conflicts	26(17.4%)	71(47.7%)	29(19.5%)	20(13.4%)	(2.0%)	3.65	0.986
Cl <sub>s3</sub>	Stakeholder do integrate each other's views, opinions and ideas to manage Solid Waste Management Projects conflicts	23(15.4%)	72(48.3%)	34(22.8%)	15(10.1%)	5(3.4%)	3.62	0.967
Cl <sub>s4</sub>	Stakeholders do work together as a team to manage Solid Waste Management Projects conflicts	23(15.4%)	57(38.3%)	48(32.2%)	14(9.4%)	7(4.7%)	3.50	1.018
Cl <sub>s5</sub>	Stakeholders in conflict situations do reach out to each other by making agreements in Solid Waste Management Projects conflicts	18(12.1%)	55(36.9%)	46(30.9%)	21(14.1%)	9(6.0%)	3.35	1.059
<b>Composite mean and Composite Standard Deviation</b>							<b>3.59</b>	<b>0.998</b>

Item Cl<sub>s1</sub> sought to investigate if stakeholders do practice problem solving in Solid Waste Management Projects conflicts. Of the 149 study respondents 35(23.5%) Strongly Agreed, 73(49.0%) agreed, 26(17.4%) were Neutral, 11(7.4%) Disagreed while 4(2.7%) strongly disagreed. The mean rate for the item was 3.83 and a Standard Deviation of 0.961. Since the value of the mean was greater than composite mean and standard deviation was less than the composite standard deviation, this implies that the item influences performance of Solid Waste Management Projects positively

Item Cl<sub>s2</sub> sought to investigate if there is co-operation among stakeholders in managing Solid Waste Management Projects conflicts. Of the 149 study respondents 26(17.4%) Strongly Agreed, 71(47.7%) agreed, 29(19.5%) were Neutral, 20(13.4%) Disagreed while 3(2.0%) strongly disagreed. The mean rate

for the item was 3.65 and a Standard Deviation of 0.986. Since the value of the mean was greater than composite mean and standard deviation was less than the composite standard deviation, this implies that the item influences performance of Solid Waste Management Projects positively

Item Cls3 sought to investigate if stakeholders do integrate each other's views, opinions and ideas to manage Solid Waste Management Projects conflicts. Of the 149 study respondents 23(15.4%) Strongly Agreed, 72(48.3%) agreed, 34(22.8%) were Neutral, 15(10.1%) disagreed, while 3.62 strongly disagreed. The mean rate for the item was 3.62 and a Standard Deviation of 0.967. Since the value of the mean was greater than composite mean and standard deviation was less than the composite standard deviation, this implies that the item influences performance of Solid Waste Management Projects positively

Item Cls4 sought to investigate if stakeholders do work together as a team to manage Solid Waste Management Projects conflicts. Of the 149 study respondents 23(15.4%) Strongly Agreed, 57(38.3%) agreed, 48(32.2%) were Neutral, 14(9.4%) Disagreed while 7(4.7%) strongly disagreed. The mean rate for the item was 3.50 and a Standard Deviation of 1.018. Since the value of the mean was less than composite mean and standard deviation was greater than the composite standard deviation, this implies that the item influences performance of Solid Waste Management Projects negatively

Item Cls5 sought to investigate if stakeholders in conflict situations do reach out to each other by making agreements in Solid Waste Management Projects conflicts. Of the 149 study respondents 18(12.1%) Strongly Agreed, 55(36.9%) agreed, 46(30.9%) were Neutral, 21(14.1%) Disagreed while 9(6.0%) strongly disagreed. The mean rate for the item was 3.35 and a Standard Deviation of 1.059. Since the value of the mean was less than composite mean and standard deviation was greater than the composite standard deviation, this implies that the item influences performance of Solid Waste Management Projects negatively

The overall composite mean and composite Standard Deviation for collaborating Conflict Management Strategy was 3.59 and 0.998 respectively. This implies that the majority of the study respondents either strongly agreed or agreed than those that either disagreed or strongly disagreed with statements on Collaborating Conflict Management Strategy. This implies that Collaboration strategy is an important strategy in Solid Waste Management Projects but as Wilmot et al (2011), collaborating strategy is not helpful in conflicts situations when; a faster agreement has to be reached and when the matter is trivial to all stakeholders involved.

#### 4.7.1 Correlation Analysis between Collaborating Conflict Management Strategy and Performance of Solid Waste Management Projects

Pearson's correlation analysis was used to determine the degree of relationships between collaborating conflict management strategies and Performance of Solid Waste Management Projects. The findings are presented in Table 4.15

**Table 4.15: Correlation Analysis between Collaborating Conflict Strategy and Performance Solid Waste Management Projects**

Variable	Correlations			
			Collaborating Conflict Strategy	Performance of SWMP
<b>Collaborating Conflict Strategy</b>	Pearson's Correlation		1	0.104
	Sig. (2-tailed)			0.209
	n		149	149
<b>Performance of Solid Waste Management Projects</b>	Pearson's Correlation		0.104	1
	Sig. (2 tailed)		0.209	
	n		149	149

**\*\*Correlation is significant at the 0.05 level (2-tailed)**

The findings of the correlation analysis between Collaborating Conflict Strategy and Performance of Solid Waste Management Projects as presented in Table 4.15 ( $r = 0.104$ ;  $P < 0.209$ ) show that there is a statistically insignificant positive weak correlation between Collaborating conflict strategy and Performance of Solid Waste Management Projects. This implies that as you collaborate more with stakeholders in solid wastes management projects, the performance of Solid Waste Management Projects will have an improvement though the improvement will be insignificant. The findings of this study corroborates the findings of the study by Cai and Fink (2010), who supposes that collaborating helps build consensus but it consumes a lot of project time and therefore the project will be implemented way beyond the schedule hence low performance. But once the consensus is build among the stakeholders, then implementation of the project flows easily because the stakeholders are in agreement and supports it.

#### 4.7.2 Regression Analysis between Collaborating Conflict Management Strategy and Performance of Solid Waste Management Projects

Regression analysis was used to determine the degree of relationship and level of significance between collaborating Conflict Management Strategy and Performance of Solid Waste Management Project. The findings are presented in Tables 4.16, 4.17 and 4.18

**Table 4.16 Model regression summary on Collaborating Conflict Management Strategy**

Model Regression Summary					
Model	R	R2	Adjusted Square	Standard Error of the Estimate	
1	0.104 <sup>a</sup>	0.011	0.004	1.156	

a. Predictor: (Constant), collaborating Conflict Management Strategy

R2 is the proportion of variance in the dependent variable (Performance) which can be predicted from the independent variable (Collaborating). This value indicates that 1.1% of the variance in performance can be predicted from the variable collaborating Conflict Management Strategy.

**Table 4.17: ANOVA Regression Analysis between Collaborating Conflict Management Strategy and Performance of Solid Waste Management Projects**

ANOVA <sup>a</sup>						
Model		Sum of Squares	Df	Mean Squares	F	Significance
1	Regression	2.128	1	2.128	1.593	0.209 <sup>b</sup>
	Residual	196.302	147	1.335		
	<b>Total</b>	<b>198.430</b>	<b>148</b>			

a. Dependent Variable: Performance of Solid Waste Management Projects

b. Predictors: (Constant), Collaborating Conflict Management Strategy,

The F statistic is the regression mean square (MSR) divided by the residual mean square (MSE). The Significance value of the F statistic is big (0.209 is greater than 0.05) since the independent variable (collaborating) explains the variation in the dependent variable.

**Table 4.18: Regression Coefficients between Collaborating Conflict Management Strategy and Performance of Solid Waste Management Projects**

Coefficients <sup>a</sup>					
Model	Unstandardized		Standardized	T	Sig.
	Coefficients		Coefficients		
	$\beta$	Std. Err	Beta		
1					
1(Constant)	1.885	0.390		4.829	0.000
Collaborating	0.125	0.099	0.104	1.262	0.209

a. Dependent Variable: Performance of Solid Waste Management Projects

Looking at the P-value (0.209 is greater than 0.05) of the t-test for the predictor, we can see that collaborating Conflict Management Strategy is statistically insignificant in determining performance since it is not contributing to the model.

#### **4.7.3 Hypothesis 3 Testing**

To determine the influence of Collaborating Conflict Management Strategy and Performance of Solid Waste Management Projects, the following null hypothesis was formulated;

$H_{03}$ : There is no significant influence between Collaborating Conflict Management Strategy and Performance of Solid Waste Management Projects

From the ANOVA regression analysis between Collaborating Conflict Management Strategy and Performance of Solid Waste Management project (Table 4.17), the calculated F statistics was found to be 0.209 which is more than the t-test table value which is at 0.05 at 95% confidence level. The F statistic value was therefore insignificant.

We thus accept the null Hypothesis that is no significant influence between collaborating Conflict Management Strategy and Performance of Solid Waste Management Projects and reject the alternative hypothesis.

#### **4.8 Competing Conflict Management Strategy and Performance of Solid Waste Management Projects**

The objective of this theme was to determine the influence of competing Conflict Management Strategy on Performance of Solid Waste Management Projects in Kisumu City. The study respondents were asked to rate statements on Competing Conflict Management Strategy and Performance of Solid Waste Management Projects in a scale of 1 to 5 in a descending order starting with 5 for strongly agree, 4 Agree, 3 Neutral, 2 Disagree and 1 Strongly Disagree.. The findings of the descriptive statistics are as presented in table 4.19

**Table 4.19: Descriptive Statistics on Competing Conflict Management Strategy**

Item	Statement	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree(1)	Mean	SD
Cts1	Confronting the conflict situation is used by stakeholders in managing Solid Waste Management conflicts	32(21.5%)	71(47.7%)	22(14.8%)	19(12.8%)	5(3.4%)	3.71	1.048
Cts2	Stakeholders with power and authority use Coercion to manage Solid Waste Management project conflicts	30(20.1%)	61(40.9%)	38(25.5%)	16(10.7%)	4(2.7%)	3.65	1.006
Cts3	Dominating is a strategy practiced by stakeholder in power and authority to manage conflicts in Solid Waste Management Projects	25(16.8%)	67(45.0%)	34(22.8%)	16(10.7%)	7(4.7%)	3.58	1.040
Cts4	Forcing interests, positions, ideas and opinions on other stakeholders in the conflict situation, is applied to manage conflicts Solid Waste Management Projects	17(11.4%)	56(37.6%)	32(21.5%)	32(21.5%)	12(8.1%)	3.23	1.152
Cts5	Contending the conflict with other stakeholders is a strategy that helps in managing stakeholder conflicts in solid waste	13(8.7%)	46(30.9%)	51(34.2%)	28(18.8%)	11(7.4%)	3.15	1.065
<b>Composite mean and Composite Standard Deviation</b>							<b>3.46</b>	<b>1.062</b>

Item Cts1 sought to determine if confronting the conflict situation is used by stakeholders in managing Solid Waste Management conflicts. Of the 149 study respondents 32(21.5%) Strongly Agreed, 71(47.7%) agreed, 22(14.8%) were Neutral, 19(12.8%) Disagreed while 5 (3.4%) strongly disagreed. The mean rate for the item was 3.71 and a Standard Deviation of 1.048. Since the value of the mean was greater than composite mean and standard deviation was less than the composite standard deviation, this implies that the item influences performance of Solid Waste Management Projects positively

Item Cts2 sought to determine if stakeholders with power and authority use Coercion to manage Solid Waste Management project conflicts. Of the 149 study respondents 30(20.1%) Strongly Agreed,

61(40.9%) agreed, 38(25.5%) were Neutral, 16(10.7%) Disagreed while 4 (2.7%) strongly disagreed. The mean rate for the item was 3.65 and a Standard Deviation of 1.006. Since the value of the mean was greater than composite mean and standard deviation was less than the composite standard deviation, this implies that the item influences performance of Solid Waste Management Projects positively

Item Cts3 sought to determine if dominating is a strategy practiced by stakeholder in power and authority to manage conflicts in Solid Waste Management Projects. Of the 149 study respondents 25(16.8%) Strongly Agreed, 67(45.0%) agreed, 34(22.8%) were Neutral, 16(10.7%) Disagreed while 7(4.7%) strongly disagreed. The mean rate for the item was 3.58 and a Standard Deviation of 1.040. Since the value of the mean was greater than composite mean and standard deviation was less than the composite standard deviation, this implies that the item influences performance of Solid Waste Management Projects positively

Item Cts4 sought to determine if forcing interests, positions, ideas and opinions on other stakeholders in the conflict situation, is applied to manage conflicts Solid Waste Management Projects. Of the 149 study respondents 17(11.4%) Strongly Agreed, 56(37.6%) agreed, 32(21.5%) were Neutral, 32(21.5%) Disagreed while 12(8.1%) strongly disagreed. The mean rate for the item was 3.23 and a Standard Deviation of 1.152. Since the value of the mean was less than composite mean and standard deviation was greater than the composite standard deviation, this implies that the item influences performance of Solid Waste Management Projects negatively

Item Cts5 sought to determine if contending the conflict with other stakeholders is a strategy that helps in managing stakeholder conflicts in solid waste Projects. Of the 149 study respondents, 13(8.7%) Strongly Agreed, 46(30.9%) agreed, 51(34.2%) were Neutral, 28(18.8%) Disagreed while 11(7.4%) strongly disagreed. The mean rate for the item was 3.15 and a Standard Deviation of 1.065. Since the value of the mean was less than composite mean and standard deviation was greater than the composite standard deviation, this implies that the item influences performance of Solid Waste Management Projects negatively

The overall composite mean and composite Standard Deviation for competing Conflict Management Strategy was 3.46 and 1.062 respectively. This implies that the majority of the study respondents either strongly agreed or agreed than those that either disagreed or strongly disagreed with statements on competing Conflict Management Strategy. The study participants by agreeing to the statements confirm that this strategy is being used to manage Solid Waste Management Projects conflicts in Kisumu City. However as Gunkel, Schlaegel, and Taras (2016) confirms in the findings of their study, competing strategy should be applied sparingly by those in authority and powers and only when the other strategies that promote co-operation and consensus building have been exhausted and have proved to be ineffective.



#### 4.8.1 Correlation Analysis between Competing Conflict Management Strategy and Performance of Solid Waste Management Projects

Pearson's correlation analysis was used to determine the degree of relationships between competing conflict management strategies and Performance of Solid Waste Management Projects. The findings are presented in Table 4.20

**Table 4.20 Correlation Analysis between Competing Conflict Strategy and Performance Solid Waste Management Projects**

Variable		Correlations	
		Competing Conflict Strategy	Performance of SWMP
<b>Competing Conflict Strategy</b>	Pearson's Correlation	1	0.144
	Sig. (2-tailed)		0.079
	n	149	149
<b>Performance of Solid Waste Management Projects</b>	Pearson's Correlation	0.144	1
	Sig. (2-tailed)	0.079	
	n	149	149

**\*\*Correlation is significant at the 0.05 level (2-tailed)**

The findings of the correlation analysis between Competing Conflict Strategy and Performance of Solid Waste Management Projects as presented in Table 4.20 ( $r = 0.144$ ;  $P < 0.079$ ) show that there is a statistically insignificant positive weak correlation between Collaborating Conflict Management Strategy and Performance of Solid Waste Management Projects. This implies that when you apply competing Conflict Management Strategy in Solid Waste Management Projects, the performance of solid management project increases though insignificantly. The findings of this study corroborates the findings of the study by Mingkai and Muirongo (2011), who found that when the winner take it all by outcompeting other stakeholders, then the project performance indicators of time will be within schedule but other performance indicators of beneficiary satisfaction, sustainability might not score since participation of other stakeholders are limited to those in power and authority prevailing over the rest. This then affects the overall performance to insignificant improvement in performance and therefore does not count much

#### 4.8.2 Regression Analysis between Competing Conflict Management Strategy and Performance of Solid Waste Management Projects

Regression analysis was used to determine the degree of relationship and level of significance between competing Conflict Management Strategy and Performance of Solid Waste Management Project. The findings are presented in Tables 4.21, 4.22 and 4.23

**Table 4.21: Model regression summary on Competing Conflict Management Strategy**

<b>Model Regression Summary</b>				
<b>Model</b>	<b>R</b>	<b>R2</b>	<b>Adjusted Square</b>	<b>Standard Error of the Estimate</b>
1	0.144 <sup>a</sup>	0.021	0.014	1.077

a. Predictor: (Constant), Competing Conflict Management Strategy

R2 is the proportion of variance in the dependent variable (Performance) which can be predicted from the independent variable (Competing). This value indicates that 2.1% of the variance in performance can be predicted from the variable competing Conflict Management Strategy.

**Table 4.22: ANOVA Regression Analysis between Competing Conflict Management Strategy and Performance of Solid Waste Management Projects**

<b>ANOVA<sup>a</sup></b>						
<b>Model</b>		<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Squares</b>	<b>F</b>	<b>Significance</b>
1	Regression	3.619	1	3.619	3.122	0.079 <sup>b</sup>
	Residual	170.408	147	1.159		
	<b>Total</b>	<b>174.027</b>	<b>148</b>			

a. Dependent Variable: Performance of Solid Waste Management Projects

b. Predictors: (Constant), Competing Conflict Management Strategy,

The F statistic is the regression mean square (MSR) divided by the residual mean square (MSE). The Significance value of the F statistic is big (0.079 is greater than 0.05) and since the independent variable (competing) explains the variation in the dependent variable

**Table 4.23: Regression Coefficients between Competing Conflict Management Strategy and Performance of Solid Waste Management Projects**

<b>Coefficients<sup>a</sup></b>				
<b>Model</b>	<b>Unstandardized Coefficients</b>	<b>Standardized Coefficients</b>	<b>T</b>	<b>Sig.</b>
	<b><math>\beta</math></b>	<b>Std. Err</b>	<b>Beta</b>	
1				
1(Constant)	1.842	0.333		5.531 0.000
Competing	0.155	0.088	0.144	1.767 0.079

a. Dependent Variable: Performance of Solid Waste Management Projects

Looking at the P-value (0.079 is greater than 0.05) of the t-test for the predictor, we can see that competing Conflict Management Strategy is statistically insignificant in determining performance since it is not contributing to the model.

#### **4.8.3 Hypothesis 4 Testing**

To determine the influence of Competing Conflict Management Strategy and Performance of Solid Waste Management Projects, the following null hypothesis was formulated;

H<sub>04</sub>: There is no significant influence between Competing Conflict Management Strategy and Performance of Solid Waste Management Projects

From the ANOVA regression analysis between Competing Conflict Management Strategy and Performance of Solid Waste Management project (Table 4.22), the calculated F statistics was found to be 0.079 which is more than the t-test table value which is at 0.05 at 95% confidence level. The F statistic value was therefore insignificant.

We thus accept the null Hypothesis that is no significant influence between competing Conflict Management Strategy and Performance of Solid Waste Management Projects and reject the alternative hypothesis.

#### **4.9 Compromising Conflict Management Strategy and Performance of Solid Waste Management Projects**

The objective of this theme was to evaluate the influence of compromising Conflict Management Strategy on Performance of Solid Waste Management Projects in Kisumu City. The study participants were asked to rate statements on Compromising Conflict Management Strategy and Performance of Solid Waste Management Projects in a scale of 1 to 5 in a descending order starting with 5 for strongly agree, 4 Agree, 3 Neutral, 2 Disagree and 1 Strongly Disagree. The findings of the descriptive statistics are as presented in table 4.24

**Table 4.24: Descriptive Statistics on Compromising Conflict Management Strategy**

Item	Statement	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree(1)	Mean	SD
Cms1	Moderating between stakeholders in Solid Waste Management project conflicts reduces severity of conflicts in Solid Waste Management Projects	42(28.2%)	68(45.6%)	25(16.8%)	9(6.0%)	5(3.4%)	3.89	0.994
Cms2	Being submissive to other stakeholders demands in the conflict situation is an effective strategy in managing Solid Waste Management project conflicts	27(18.1%)	42(28.2%)	36(24.2%)	31(20.8%)	13(8.7%)	3.26	1.227
Cms3	Being considerate to other stakeholders in Solid Waste Management Projects is an effective method of minimizing conflicts	37(24.8%)	72(48.3%)	26(17.4%)	11(7.4%)	3(2.0%)	3.97	0.942
Cms4	Stakeholder concession to each other demands reduces conflicts in Solid Waste Management Projects	22(14.8%)	65(43.6%)	40(26.8%)	16(10.7%)	6(4.0%)	3.54	1.003
Cms5	Stakeholder bargaining in Solid Waste Management project conflicts is normally very effective in reducing conflicts	25(16.8%)	61(40.9%)	40(26.8%)	15(10.1%)	8(5.4%)	3.54	1.056
<b>Composite mean and Composite Standard Deviation</b>							<b>3.64</b>	<b>0.978</b>

Item Cms1 sought to evaluate if moderating between stakeholders in Solid Waste Management project conflicts reduces severity of conflicts in Solid Waste Management Projects. Of the 149 study respondents

42(28.2%) Strongly Agreed, 68(45.6%) agreed, 25(16.8%) were Neutral, 9(6.0%) Disagreed while 5(3.4%) strongly disagreed. The mean rate for the item was 3.89 and a Standard Deviation of 0.994. Since these values were both greater than composite mean and composite standard deviation, this implies that the item influences the performance of Solid Waste Management Projects positively.

Item Cms2 sought to evaluate if being submissive to other stakeholder's demands in the conflict situation is an effective strategy in managing Solid Waste Management project conflicts. Of the 149 study respondents 27(18.1%) Strongly Agreed, 42(28.2%) agreed, 36(24.2%) were Neutral, 31(20.8%) Disagreed while 13(8.7%) strongly disagreed. The mean rate for the item was 3.26 and a Standard Deviation of 1.227. Since the value of the mean was less than composite mean and standard deviation was greater than the composite Standard Deviation, this implies that the item influences performance of Solid Waste Management Projects negatively

Item Cms3 sought to evaluate if being considerate to other stakeholders in Solid Waste Management Projects is an effective method of minimizing conflicts. Of the 149 study respondents 37(24.8%) Strongly Agreed, 72(48.3%) agreed, 26(17.4%) were Neutral, 11(7.4%) Disagreed while 3(2.0%) strongly disagreed. The mean rate for the item was 3.97 and a Standard Deviation of 0.942. Since the value of the mean was greater than composite mean and standard deviation was less than the composite standard deviation, this implies that the item influences performance of Solid Waste Management Projects positively

Item Cms4 sought to evaluate if stakeholder concession to each other's demands reduces conflicts in Solid Waste Management Projects. Of the 149 study respondents 22(14.8%) Strongly Agreed, 65(43.6%) agreed, 40(26.8%) were Neutral, 16(10.7%) Disagreed while 6(4.0%) strongly disagreed. The mean rate for the item was 3.54 and a Standard Deviation of 1.003. Since the value of the mean was less than composite mean and standard deviation was greater than the composite standard deviation, this implies that the item influences performance of Solid Waste Management Projects negatively

Item Cms5 sought to evaluate if stakeholder bargaining in Solid Waste Management project conflicts is normally very effective in reducing conflicts. Of the 149 study respondents 25(16.8%) Strongly Agreed, 61(40.9%) agreed, 40(26.8%) were Neutral, 15(10.1%) Disagreed while 8(5.4%) strongly disagreed. The mean rate for the item was 3.54 and a Standard Deviation of 1.056. Since the value of the mean was less than composite mean and standard deviation was greater than the composite standard deviation, this implies that the item influences performance of Solid Waste Management Projects negatively

The overall composite mean and composite Standard Deviation for compromising Conflict Management Strategy was 3.64 and 0.978 respectively. This implies that the majority of the study respondents either strongly agreed or agreed than those that either disagreed or strongly disagreed with statements on

compromising Conflict Management Strategy. The implication of compromising conflict is that it is the stark opposite of competing strategy but if over applied the objectives of Solid Waste Management Projects might be watered down as is confirmed by Wilmot et al (2011), who found out that Compromising strategy is a highly time consuming and conflicting parties preferred other strategies because it also leads to dilution of the real goal and conflict issues of concern.

On compromising Conflict Management Strategy, the authorities narrated how they sometimes leave rag pickers to scavenge through solid wastes just to let them pick what they consider valuable to them even if they are spreading already collected solid wastes just to avoid picking up conflict with them as quoted herein;

*At our waste collection points, rag pickers normally scatter out and disembark solid wastes that we have collected but we normally refrain from arresting them since most of them are very poor people who cannot even afford our fines. So we allow them to pick whatever they can pick, even though we shouldn't allow them not even access to our waste collection points bur we do just to have them salvage whatever recyclables they can salvage just to make life out them. If we were to tighten our rules on handling Solid Waste Management, even several jua kali industries would close for lack of raw materials as they are highly dependent on recycled plastic, metal and other products. This derails our Solid Waste Management processes, as more time is needed and resources just to complete a simple waste collection task” (Source CGoK 3)*

#### 4.9.1 Correlation Analysis between Compromising Conflict Management Strategy and Performance of Solid Waste Management Projects

Pearson’s correlation analysis was used to determine the degree of relationships between compromising conflict management strategies and Performance of Solid Waste Management Projects. The findings are presented in table 4.25

**Table 4.25: Correlation Analysis between Compromising Conflict Strategy and Performance Solid Waste Management Projects**

Variable			Correlations	
			Compromising Conflict Strategy	Performance of SWMP
<b>Compromising Strategy</b>	<b>Conflict</b>	Pearson’s Correlation	1	-0.203**
		Sig. (2-tailed)		0.013
		n	149	149
<b>Performance of Solid Waste Management Projects</b>	<b>Solid Management</b>	Pearson’s Correlation	-0.203**	1
		Sig. (2 tailed)	0.013	
		n	149	149

**\*\*Correlation is significant at the 0.05 level (2-tailed)**

The findings of the correlation analysis between compromising Conflict Management Strategy and Performance of Solid Waste Management Projects as presented in Table as presented in Table 4.25 ( $r = -0.203$ ;  $P < 0.013$ ) show that there is a statistically significant negative weak correlation between Compromising conflict strategy and Performance of Solid Waste Management Projects. This implies that when you apply compromising Conflict Management Strategy in Solid Waste Management Projects, the performance of solid management project decreases, though the decrease is insignificant. The findings of this study corroborates the findings of the study by Wilmot et al (2011), who found out that compromising strategy is a highly time consuming strategy of conflict management and conflicting parties preferred other strategies because it also leads to dilution of the real goal and conflict issues of concern.

#### 4.9.2 Regression Analysis between Compromising Conflict Management Strategy and Performance of Solid Waste Management Projects

Regression analysis was used to determine the degree of relationship and level of significance between Compromising Conflict Management Strategy and Performance of Solid Waste Management Project. The findings are presented in Tables 4.26, 4.27 and 4.2

**Table 4.26 Model regression summary on Compromising Conflict Management Strategy**

<b>Model Regression Summary</b>				
<b>Model</b>	<b>R</b>	<b>R<sup>2</sup></b>	<b>Adjusted Square</b>	<b>Standard Error of the Estimate</b>
1	0.203 <sup>a</sup>	0.041	0.035	1.065

a. Predictor: (Constant), Compromising Conflict Management Strategy

R<sup>2</sup> is the proportion of variance in the dependent variable (Performance) which can be predicted from the independent variable (Compromising). This value indicates that 4.1% of the variance in performance can be predicted from the variable compromising Conflict Management Strategy.

**Table 4.27: ANOVA Findings of Regression Analysis between Compromising Conflict Management Strategy and Performance of Solid Waste Management Projects**

<b>ANOVA<sup>a</sup></b>						
<b>Model</b>		<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Squares</b>	<b>F</b>	<b>Significance</b>
1	Regression	7.170	1	7.170	6.316	0.013 <sup>b</sup>
	Residual	166.857	147	1.135		
	<b>Total</b>	<b>174.027</b>	<b>148</b>			

a. Dependent Variable: Performance of Solid Waste Management Projects

b. Predictors: (Constant), Compromising Conflict Management Strategy,

The F statistic is the regression mean square (MSR) divided by the residual mean square (MSE). The Significance value of the F statistic is small (0.013 is less than 0.05) since the independent variable (compromising) explains the variation in the dependent variable.

**Table 4.28: Regression Coefficients between Compromising Conflict Management Strategy and Performance of Solid Waste Management Projects**

Model	Coefficients <sup>a</sup>				
	Unstandardized		T	Sig.	
	Standardized				
	Coefficients		Coefficients		
1	$\beta$	Std. Err	Beta		
1(Constant)	2.995	.249		12.044	0.000
Compromising	-0.179	0.071	-0.203	-2.513	0.013

**a. Dependent Variable: Performance of Solid Waste Management Projects**

Looking at the P-value, is small (0.013 is less than 0.05) of the t-test for the predictor, we can see that compromising Conflict Management Strategy is statistically significant in determining performance and it is contributing to the model.

#### 4.9.3 Hypothesis 5 Testing

H<sub>05</sub>: There is no significant influence between Compromising Conflict Management Strategy and Performance of Solid Waste Management Projects

From the ANOVA regression analysis between Compromising Conflict Management Strategy and Performance of Solid Waste Management Projects (Table 4.27), the calculated F statistics was found to be 0.013 which is less than the t-test table value which is at 0.05 at 95% confidence level. The F statistic value was therefore significant.

We thus reject the null Hypothesis that is no significant influence between compromising Conflict Management Strategy and Performance of Solid Waste Management Projects and retain the alternative hypothesis.



## CHAPTER FIVE

### SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter presents a summary of the study's key findings, the study's discussions, conclusion made from the findings, recommendations as per the findings, the study's contribution to body of knowledge and suggestions for further research.

#### 5.2 Summary of Findings

Based on the study's findings tabulated and presented in chapter four and the purpose of the study as outlined in chapter one, which was to establish influence of stakeholder conflict management strategies on Performance of Solid Waste Management Projects in Kisumu City. The strategies under investigations were, avoiding Conflict Management Strategy, accommodating Conflict Management Strategy, collaborating Conflict Management Strategy, competing Conflict Management Strategy and compromising Conflict Management Strategy. For determination of Performance of Solid Waste Management Projects key performance indicators of cost effectiveness, timeliness, quality, sustainability and beneficiary satisfaction were used as a yardstick to measure performance. The summary of findings per objective themes is as discussed here-in;

##### 5.2.1 Avoiding Conflict Management Strategy and Performance of Solid Waste Management Projects

On theme of objective one, the study sought to establish the extent at which avoiding Conflict Management Strategy influences Performance of Solid Waste Management Projects in Kisumu City. The summary of findings of the theme of this objective is as follows; the study established that there is a negative weak correlation between avoiding Conflict Management Strategy and Performance of Solid Waste Management Projects, which is statistically significant at ( $r = -0.187$ ;  $P < 0.024$ )

##### 5.2.2 Accommodating Conflict Management Strategy and Performance of Solid Waste Management Projects

On theme of objective two, the study sought to assess the extent at which accommodating Conflict Management Strategy influences Performance of Solid Waste Management Projects in Kisumu City. The study established that there is a negative weak correlation between accommodating Conflict Management Strategy and Performance of Solid Waste Management Projects, which is statistically significant at ( $r = -0.229$ ;  $P < 0.005$ )

### **5.2.3 Collaborating Conflict Management Strategy and Performance of Solid Waste Management Projects**

On theme of objective three, the study sought to investigate to what extent Collaborating Conflict Management Strategy influences Performance of Solid Waste Management Projects in Kisumu City. The study established that there is a positive weak correlation between Collaborating Conflict Management Strategy and Performance of Solid Waste Management Projects, which is statistically insignificant at ( $r=0.104$ ;  $P<0.209$ )

### **5.2.4 Competing Conflict Management Strategy and Performance of Solid Waste Management Projects**

On theme of objective Four, the study sought to determine to what extent Competing Conflict Management Strategy influences Performance of Solid Waste Management Projects in Kisumu City. The study established that there is a positive weak correlation between Competing Conflict Management Strategy and Performance of Solid Waste Management Projects, which is statistically insignificant at ( $r=0.144$ ;  $P<0.079$ )

### **5.2.5 Compromising Conflict Management Strategy and Performance of Solid Waste Management Projects**

On theme of objective Five, the study sought to evaluate to what extent compromising Conflict Management Strategy influences Performance of Solid Waste Management Projects in Kisumu City. The study established that there is a negative weak correlation between Compromising Conflict Management Strategy and Performance of Solid Waste Management Projects, which is statistically significant at ( $r=-0.203$ ;  $P<0.013$ )

### **5.2.6 Performance of Solid Waste Management Projects**

On the dependent variable theme, the study sought to evaluate Performance of Solid Waste Management Projects in Kisumu City. The study established that the performance of Solid Waste Management Projects there is a weak negative relationship between performance and avoiding Conflict Management Strategy which is statistically significant ( $r=-0.229$ ;  $P<0.005$ ). There is there is a weak negative relationship between performance and accommodating Conflict Management Strategy which is statistically significant at ( $r=-0.187$ ;  $P<0.024$ ). There is there is a weak positive relationship between performance and collaborating Conflict Management Strategy which is statistically insignificant at ( $r=-0.104$ ;  $P<0.209$ ). There is there is a weak positive relationship between performance and competing Conflict Management Strategy which is statistically insignificant at ( $r=-0.144$ ;  $P<0.079$ ) and there is a negative weak correlation between performance and compromising Conflict Management Strategy which is statistically significant at ( $r=-0.203$ ;  $P<0.013$ ).

### **5.3 Conclusions**

The purpose of the study was to establish influence of stakeholder conflict management strategies on Performance of Solid Waste Management Projects in Kisumu City. Objective one sought to establish influence of avoiding Conflict Management Strategy on Performance of Solid Waste Management Projects in Kisumu City. The study established that avoiding Conflict Management Strategy negatively influences performance of solid wastes management Projects and the negative influence is significant. The study further concluded that as stakeholders avoid conflicts to deal with more important issues, the Performance of Solid Waste Management Projects is negatively influenced. Avoiding Conflict Management Strategy should therefore be minimally applied in Solid Waste Management conflicts as it will have a negatively impact if the issues at hand are not resolved but postponed.

Objective two sought to assess influence of accommodating Conflict Management Strategy on Performance of Solid Waste Management Projects in Kisumu City. The study established that accommodating Conflict Management Strategy negatively and significantly influences performance of solid wastes management projects. The study concluded that accommodating other stakeholders though builds synergy that helps in faster implementation of the project should limitedly be applied as you cannot accommodate the needs, wants and opinions of all stakeholders and still have a higher performance of SWMP

Objective three sought to investigate influence of collaborating Conflict Management Strategy on Performance of Solid Waste Management Projects in Kisumu City. The study established that collaborating Conflict Management Strategy positively influences Solid Waste Management Projects, though the influence is insignificant. The study concluded that building rapport among stakeholders provides that impetus for faster implementation of Solid Waste Management Projects. Therefore it should be applied cautiously in a manner that does not consume too much project time just to provide synergy and understanding among stakeholders necessary for project implementation

Objective four sought to determine influence of competing Conflict Management Strategy on Performance of Solid Waste Management Projects in Kisumu City. The study established that competing conflict strategy positively influences Performance of Solid Waste Management Projects, though the influence is insignificant. The study concluded that competing Conflict Management Strategy should be carefully applied in stakeholder conflicts on Solid Waste Management Projects as when stakeholder feel dominated by a few with power and authority, they might turn out to be the greatest opponents of the project and when competing strategy is not applied only in critical situations, when Solid Waste Management challenges may turn to a risk to public health and environmental health.

Objective five sought to evaluate influence of compromising Conflict Management Strategy on Performance of Solid Waste Management Projects in Kisumu City. The study established that compromising Conflict Management Strategy influences Performance of Solid Waste Management Projects both negatively and significantly. The study concluded that compromising strategy should be applied in Solid Waste Management conflicts when there is time to build consensus among the stakeholders and the situation is not critical but where there is no time and the situation is critical, compromising strategy should never be applied as it is too time consuming and in critical situations, everything Solid Waste Management Projects aimed to achieve could be lost.

On dependent variable theme, the study sought to establish Performance of Solid Waste Management Projects in Kisumu City. The study established that with stakeholder conflicts not properly managed Solid Waste Management Projects perform poorly as the Projects are never completed in time, the Projects do not meet design and quality specification, the projects are not completed in time and are therefore not sustainable and lastly the projects do not satisfy beneficiary needs. However with stakeholder conflicts properly managed, Performance of Solid Waste Management Projects could be greatly enhanced especially when applying the most relevant conflict strategy to the situation at hand.

Overall, the study concluded that each stakeholder Conflict Management Strategy should be applied appropriately to the situation at hand to enhance Performance of Solid Waste Management Projects. This is so because each strategy only has an effect that is either negative or positive on one or two KPI of project performance. For example competing strategy will have a positive influence on saving on project time but a negative influence on sustainability while Collaborating strategy will consume a lot of project time but will greatly enhance project sustainability.

#### **5.4 Recommendations**

The study made the following recommendations for policy formulations and action in Solid Waste Management Projects;

1. There should be proper stakeholder identification, appraisal and involvement in designing, development, planning and implementation of Solid Waste Management Projects
2. To improve Performance of Solid Waste Management Projects in Kisumu City, appropriate stakeholder Conflict Management Strategy should be applied so that Solid Waste Management Projects are implemented to satisfaction of beneficiaries
3. In very critical situations where Solid Waste Management has become a public health issue, the government should apply competing conflict strategy dominating with power and authority in order to avoid and avert possible public health and environmental crises.

4. Stakeholder roles and responsibilities should be well defined in Solid Waste Management Projects to avoid overlapping needs, interests and aspirations that can lead to more conflicts in SWMP

### 5.5 Suggestions for further Research

1. The researcher suggest that a similar study should be conducted on general waste management projects that will encompass solid, liquid and gaseous wastes that pollutes and degrades the environment
2. The researcher further suggests a similar study should be conducted in two other Kenyan cities of Nairobi and Mombasa and if possible extended to municipalities such as Machakos, Nakuru, Eldoret Kakamega, Kiambu, Thika and Nyeri which are chocking with solid wastes to mitigate the challenge of SWM

### 5.6 Contributions to the body of knowledge

The findings of the study have contributed in the following ways to the body of knowledge as indicated in Table 5.1

**Table 5.1: Contributions to the body of knowledge**

Objective	Contribution to the body of Knowledge
To establish the influence of avoiding Conflict Management Strategy on Performance of Solid Waste Management Projects in Kisumu City	There is a statistically significant relationship between avoiding Conflict Management Strategy and performance of Solid Waste Management in Kisumu City. There is a weak negative correlation at ( $r= -0.229$ ; $P<0.005$ ). Avoiding Conflict Management Strategy should be applied in management of stakeholder conflicts in Solid Waste Management Projects since it is statistically significant in affecting their performance
To assess the influence of accommodating Conflict Management Strategy on performance of Solid Waste Management Projects in Kisumu City	There is a statistically significant negative relationship between accommodating Conflict Management Strategy and Performance of Solid Waste Management Projects in Kisumu City. There is a weak negative correlation at ( $r= -0.187$ ; $P<0.024$ ). Accommodating Conflict Management

	Strategy should be applied in management of stakeholder conflicts in Solid Waste Management Projects since it is statistically significant in affecting their performances
To investigate the influence of collaborating conflicts management strategy on performance Solid Waste Management Projects in Kisumu City	There is a statistically insignificant positive relationship between collaborating Conflict Management Strategy and Performance of Solid Waste Management Projects. There is a weak positive correlation at ( $r= 0.104$ ; $P<0.209$ ). Collaborating Conflict Management Strategy should be applied in management of stakeholder conflict in SWMP since it has a positive correlation in affecting their performances
To determine the influence of competing Conflict Management Strategy on Performance of Solid Waste Management Projects in Kisumu City	There is a statistically insignificant relationship between competing Conflict Management Strategy and Performance of SWMP. There is a weak positive correlation at ( $r= 0.144$ ; $P<0.079$ ).Competing Conflict Management Strategy should be applied in management of stakeholder conflict in Solid Waste SWMP since it has a positive correlation in affecting their performances
To evaluate the influence of compromising Conflict Management Strategy on Performance of Solid Waste Management Projects in Kisumu City	There is a statistically significant relationship between Compromising conflict strategy and Performance of SWMP. There is a weak negative correlation at ( $r= -0.203$ ; $P<0.013$ ) Compromising Conflict Management Strategy should be applied in management of stakeholder conflicts in Solid Waste Management Projects since it is statistically significant in affecting their performance

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APPENDICES

APPENDIX I: QUESTIONNAIRE

STAKEHOLDER CONFLICT MANAGEMENT STRATEGIES AND Performance of Solid Waste Management Projects

Questionnaire Number.....

Date .....

Dear Respondent,

My name is **BOPHINES SEWE**, a Masterø Degree student at the University of Nairobi- Kisumu City Campus. I am currently undertaking my academic Research on **Stakeholder conflict Management Strategies and Performance of Solid Waste Management Projects in Kisumu City, Kenya**

I therefore humbly request that you spare few of your minutes and fill this questionnaire to enable me complete this academic Research work. I assure you that the information collected will be purely used for academic purposes and **NOT** for any other purpose.

Thank you for being kind enough to fill it.

INSTRUCTIONS

- i. This questionnaire is divided into 7 Sections, from A, to G with each section asking specific questions. Kindly fill all the sections and as complete as possible.
- ii. Fill the questionnaire as soon as you possibly can
- iii. For Multiple choice questions, kindly choose one and tick inside the box appropriately

SECTION A: DEMOGRAPHIC INFROMATION

SEX:  Male  Female

AGE (YRS): Below 20  21-30  31-40  41-50  51-60

Over 60

MARITAL STATUS;

Single  Married  Separated  Widowed  Other (specify)

í í

**HIGHEST LEVEL OF EDUCATION;**

University Degree  Diploma  Secondary  Primary

Other (specify)  í ..

**WHAT IS YOUR SOURCE OF INCOME?**

Employed  Unemployed  Doing Business  Farming

Other (Specify) í .

**WHAT IS YOUR PROFESSIONAL BACKGROUND?**

Environmentalist  Administration  Management  Manufacturing

Education  Health  Business  Other (specify)

í .....

**WHAT POSITION DO YOU HOLD IN YOUR ORGANIZATION?**

Senior Management  Middle Management  Junior Management  Staff

Chairman  Secretary  Treasurer  Member  Other (specify)

í í

**SECTION B: Avoiding Conflict Management Strategy and Performance of Solid Waste Management Projects**

This section contains items/statements on influence of avoiding Conflict Management Strategy on Performance of Solid Waste Management Projects. Kindly please rate the following statements in a scale of 1 to 5 as follows;

**Strongly Agree-5, Agree- 4, Neutral-3, Disagree-2, Strongly Disagree-1**

Item	Statements on Avoiding Conflict Management Strategy	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree(1)
Avs1	Stakeholders apply Postponement strategy to manage conflicts in Solid Waste Management Projects					
Avs2	Withdrawal from the conflict situation helps in managing conflicts among stakeholders in Solid Waste Management Projects					
Avs3	Ignoring conflicts is an effective strategy stakeholders apply to manage conflicts among them in Solid Waste Management Projects					
Avs4	Disengagement from conflicts is used to manage conflicts in Solid Waste Management Projects					
Avs5	Solid Waste Management project conflicts are effectively managed through inaction by stakeholders					

**SECTION C: Accommodating Conflict Management Strategy and Performance of Solid Waste Management Projects**

This section contains items/statements on influence of accommodating Conflict Management Strategy on Performance of Solid Waste Management Projects. Kindly please rate the following statements on a scale of 1 to 5 as follows;

**Strongly Agree-5, Agree- 4, Neutral-3, Disagree-2, Strongly Disagree-1**

Item	Statements on Accommodating Conflict Management Strategy	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree(1)
Acs1	Yielding to other stakeholder's demands is applied by stakeholders to manage conflicts in Solid Waste Management Projects					
Acs2	Negotiations among stakeholders in the conflict situation is a method used to manage conflicts in Solid Waste Management Projects					
Acs3	Obliging to other stakeholder's demands in conflict situations is used to manage conflicts in Solid Waste Management Projects					
Acs4	Smoothing stakeholder differences is applied to manage conflicts in Solid Waste Management Projects					
Acs5	Forming coalitions between stakeholders manages Solid Waste Management project conflicts					

**SECTION D: Collaborating Conflict Management Strategy and Performance of Solid Waste Management Projects**

This section contains items/statements on influence of collaborating Conflict Management Strategy on Performance of Solid Waste Management Projects. Kindly please rate the following statements on a scale of 1 to 5 as follows;

**Strongly Agree-5, Agree- 4, Neutral-3, Disagree-2, Strongly Disagree-1**

Item	Statements on Collaborating Conflict Management Strategy	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree(1)
Cls1	Stakeholders do practice problem solving in Solid Waste Management Projects conflicts					
Cls2	There is co-operation among stakeholder in managing Solid Waste Management Projects conflicts					
Cls3	Stakeholder do integrate each other's views, opinions and ideas to manage Solid Waste Management Projects conflicts					
Cls4	Stakeholders do work together as a team to manage Solid Waste Management Projects conflicts					
Cls5	Stakeholders in conflict situations do reach out to each other by making agreements in Solid Waste Management Projects conflicts					

**SECTION E: Competing Conflict Management Strategy and Performance of Solid waste Management Projects**

This section contains items/statements on influence of Competing Conflict Management Strategy on Performance of Solid Waste Management Projects. Kindly please rate the following statements on a scale of 1 to 5 as follows;

**Strongly Agree-5, Agree- 4, Neutral-3, Disagree-2, Strongly Disagree-1**

Item	Statements on Competing Conflict Management Strategy	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
Cts1	Confronting the conflict situation is used by stakeholders in managing Solid Waste Management conflicts					
Cts2	Stakeholders with power and authority use Coercion to manage Solid Waste Management project conflicts					
Cts3	Dominating is a strategy practiced by stakeholder in power and authority to manage conflicts in Solid Waste Management Projects					
Cts4	Forcing interests, positions, ideas and opinions on other stakeholders in the conflict situation, is applied to manage conflicts Solid Waste Management Projects					
Cts5	Contending the conflict with other stakeholders is a strategy that helps in managing stakeholder conflicts in Solid Waste Management Projects					

**SECTION F: Compromising Conflict Management Strategy and Performance of Solid Waste Management Projects**



This section contains items/statements on influence of Compromising Conflict Management Strategy on Performance of Solid Waste Management Projects. Kindly please rate the following statements on a scale of 1 to 5 as follows;

**Strongly Agree-5, Agree- 4, Neutral-3, Disagree-2, Strongly Disagree-1**

Item	Statements on Compromising Conflict Management Strategy	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree(1)
Cms1	Moderating between stakeholders in Solid Waste Management project conflicts reduces severity of conflicts in Solid Waste Management Projects					
Cms2	Being submissive to other stakeholder's demands in the conflict situation is an effective strategy in managing Solid Waste Management project conflicts					
Cms3	Being considerate to other stakeholders in Solid Waste Management Projects is an effective method of minimizing conflicts					
Cms4	Stakeholder concession to each other's demands reduces conflicts in Solid Waste Management Projects					
Cms5	Stakeholder bargaining in Solid Waste Management project conflicts is normally very effective in reducing conflicts					

#### **SECTION G: Performance of Solid Waste Management Projects**

This section contains items/statements on Performance of Solid Waste Management Projects. Kindly please rate the following statements on a scale of 1 to 5 as follows;

**Strongly Agree-5, Agree- 4, Neutral-3, Disagree-2, Strongly Disagree-1**

Item	Statements Performance of Solid Waste Management Projects	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree(1)
Pfc1	Solid Waste Management Projects are implemented within the project cost and budgetary allocations					
Pfc2	Solid Waste Management Projects achieve desired quality standard and technical specifications as per their design					
Pfc3	Solid Waste Management Projects implemented do satisfy the intended beneficiaries					
Pfc4	Solid Waste Management Projects implemented are sustainable					
Pfc5	Solid Waste Management Projects are implemented in a timely manner					

**THE END**

**Thank you for your time**

## APPENDIX II: INTERVIEW GUIDE

### STAKEHOLDER CONFLICT MANAGEMENT STRATEGIES AND Performance of Solid Waste Management Projects IN KISUMU CITY

1. How does Avoiding Conflict Management Strategy does affects Performance of Solid Waste Management Projects in Kisumu County?  
**Probe for;** Postponement, Withdrawal, ignoring, Disengagement and inaction
2. How does Accommodating Conflict Management Strategy on Performance of Solid Waste Management Projects in Kisumu County?  
**Probe for;** Yielding, Negotiations, Obliging, smoothing and coalitions
3. How does Collaborating Conflict Management Strategy on Performance of Solid Waste Management Projects in Kisumu County?  
**Probe for;** Problem solving, co-operation, integration, team work and agreement
4. How does Competing Conflict Management Strategy on Performance of Solid Waste Management Projects in Kisumu County?  
**Probe for;** Confronting, coercion, domination, forcing and contending
5. How does Compromising Conflict Management Strategy on Performance of Solid Waste Management Projects in Kisumu County?  
**Probe for;** Moderating, submissive, considerate, concessions, and bargaining
6. How do Solid Waste Management Projects perform in Kisumu County?  
**Probe for;** Cost effectiveness, quality, beneficiary satisfaction, sustainability and timeliness

### APPENDIX III: LETTER OF RESEARCH AUTHORIZATION BY THE UNIVERSITY



**UNIVERSITY OF NAIROBI  
OPEN, DISTANCE AND e-LEARNING CAMPUS  
SCHOOL OF OPEN & DISTANCE LEARNING  
KISUMU CAMPUS**

The Secretary  
National Council for Science and Technology  
P.O Box 30623-00100  
**NAIROBI, KENYA**

16<sup>th</sup> May, 2019

Dear Sir/Madam,

**RE: BOPHINES OMONDI SEWE - REG NO: L50/10722/2018**

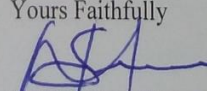
This is to inform you that **Bophines Omondi Sewe** named above is a student in the University of Nairobi, Open, Distance and e-learning centre, School of Open and Distance learning, Kisumu Campus.

The purpose of this letter is to inform you that **Bophines** has successfully completed his **Masters** Course work and Examinations in the programme, has developed Research Proposal and submitted before the School Board of Examiners which he successfully defended and made corrections as required by the School Board of Examiners.

The research title approved by the School Board of Examiners is: *“stakeholder conflict management strategies and performance of solid waste management projects in Kisumu city, Kenya”*. The Project is part of the pre-requisite of the course and therefore we would appreciate if the student is issued with a research permit to enable him collect data and write a report. Research project reflect integration of practice and demonstrate writing skills and publishing ability. It also demonstrates the learners’ readiness to advance knowledge and practice in the world of research.

We hope to receive positive response so that the student can move to the field to collect data as soon as he gets the permit.

Yours Faithfully

  
**DR. NICHOLAS KUT, PhD**  
COORDINATOR- OLP  
KISUMU CAMPUS  
Cc: file copy

CO-ORDINATOR  
SCDE - KISUMU CAMPUS  
16 MAY 2019  
P. O. Box 825 - 40100,  
KISUMU

## APPENDIX IV: LETTER OF RESEARCH AUTHORIZATION BY NACOSTI



### NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

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

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

Ref. No. **NACOSTI/P/19/52102/30988**

Date: **27<sup>th</sup> June 2019**

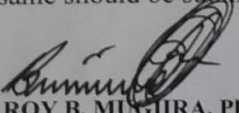
Bophines Omondi Sewe  
University of Nairobi  
P.O Box 30197-00100  
**NAIROBI.**

#### RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on "*Stakeholder conflict management strategies and performance of solid waste management projects in Kisumu City, Kenya.*" I am pleased to inform you that you have been authorized to undertake research in **Kisumu County** for the period ending **24<sup>th</sup> June, 2020.**

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

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

  
**DR. ROY B. MUGIIRA, PhD.**  
**FOR: DIRECTOR-GENERAL/CEO**

Copy to:

The County Commissioner  
Kisumu County.

The County Director of Education  
Kisumu County.



## APPENDIX V: RESEARCH CLEARANCE PERMIT BY NACOSTI

**THIS IS TO CERTIFY THAT:** **Permit No : NACOSTI/P/19/52102/30988**  
**MR. BOPHINES OMONDI SEWE** **Date Of Issue : 27th June,2019**  
**of UNIVERSITY OF NAIROBI, 15292-100** **Fee Received :Ksh 1000**  
**NAIROBI,has been permitted to conduct**  
**research in Kisumu County**

**on the topic: STAKEHOLDER CONFLICT**  
**MANAGEMENT STRATEGIES AND**  
**PERFORMANCE OF SOLID WASTE**  
**MANAGEMENT PROJECTS IN KISUMU**  
**CITY, KENYA**

**for the period ending:**  
**24th June,2020**

  
Applicant's  
Signature

  
  
Director General  
National Commission for Science,  
Technology & Innovation

**THE SCIENCE, TECHNOLOGY AND  
INNOVATION ACT, 2013**

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

**CONDITIONS**

1. The License is valid for the proposed research, location and specified period.
2. The License and any rights thereunder are non-transferable.
3. The Licensee shall inform the County Governor before commencement of the research.
4. Excavation, filming and collection of specimens are subject to further necessary clearance from relevant Government Agencies.
5. The License does not give authority to transfer research materials.
6. NACOSTI may monitor and evaluate the licensed research project.
7. The Licensee shall submit one hard copy and upload a soft copy of their final report within one year of completion of the research.
8. NACOSTI reserves the right to modify the conditions of the License including cancellation without prior notice.

  
REPUBLIC OF KENYA

  
National Commission for Science,  
Technology and Innovation  
**RESEARCH LICENSE**

National Commission for Science, Technology and innovation  
P.O. Box 30623 - 00100, Nairobi, Kenya  
TEL: 020 400 7000, 0713 788787, 0735 404245  
Email: dg@nacosti.go.ke, registry@nacosti.go.ke  
Website: www.nacosti.go.ke

Serial No.A 25633  
CONDITIONS: see back page

**APPENDIX VI: LETTER OF RESEARCH AUTHORIZATION BY COUNTY DIRECTOR OF EDUCATION-KISUMU COUNTY**



REPUBLIC OF KENYA

**MINISTRY OF EDUCATION**  
**State Department of Early Learning & Basic Education**

Telegrams: "schooling", Kisumu  
Telephone: Kisumu 057 - 2024599  
Email: countyeducation.kisumu@gmail.com

COUNTY DIRECTOR OF EDUCATION  
KISUMU COUNTY  
PROVINCIAL HEADQUARTERS NYANZA  
3<sup>RD</sup> FLOOR  
P.O. BOX 575 – 40100  
KISUMU

**When replying please quote**

REF: CDE/KSM/GA/19/3A/V.II/220

3<sup>rd</sup> July, 2019

**TO WHOM IT MAY CONCERN**

**RE: RESEARCH AUTHORIZATION**  
**BOPHINES OMONDI SEWE – NACOSTI/P/19/52102/30988**

The above named is from University of Nairobi.

This is to certify that he has been granted authority to carry out research on "*Stakeholder conflict management strategies and performance of solid waste management projects in Kisumu City, Kenya*" for the period ending **24<sup>th</sup> June, 2020**.

Any assistance accorded to him to accomplish the assignment will be highly appreciated.

JAMES M. OBUKUI  
For: COUNTY DIRECTOR OF EDUCATION  
KISUMU COUNTY



**APPENDIX VII: LETTER OF RESEARCH AUTHORIZATION BY COUNTY COMMISSIONER- KISUMU COUNTY**



**THE PRESIDENCY**

**MINISTRY OF INTERIOR AND COORDINATION OF NATIONAL GOVERNMENT**

Telephone: Kisumu 2022219/Fax: 2022219  
Email: ckisumucounty@gmail.com

**COUNTY COMMISSIONER  
KISUMU COUNTY  
P.O. BOX 1912-40100  
KISUMU**

**Ref:** CC/KC/ED/3/VOL.4/108

**Date:** 3<sup>rd</sup> July, 2019

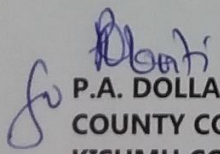
All Deputy County Commissioners  
**KISUMU COUNTY**

**RESEARCH AUTHORIZATION: BOPHINES OMONDI SEWE**

Reference is made to a National Commission for Science and Technology and Innovation letter ref: NACOSTI/P/19/52102/30988 of 27<sup>th</sup> June 2019 on the above subject matter.

The above named is a student of University of Nairobi. He has been authorized to carry out a research on ***"Stakeholder conflict management strategies and performance of solid waste management projects in Kisumu city."*** The research ends on 24<sup>th</sup> June 2020.

Kindly accord him any assistance that he may need.

  
**P.A. DOLLA (MBS)  
COUNTY COMMISSIONER  
KISUMU COUNTY**

**Copy to:**

Bohpines Omondi Sewe  
University of Nairobi  
P. O. Box 30197-00100  
**NAIROBI.**