EFFECT OF GOVERNMENT REGULATORY POLICY ON PUBLIC TRANSPORT CONDUCT: A CASE OF MATATU TRANSPORT SECTOR IN NAIROBI COUNTY, KENYA

AGHAN LINNABEL

A RESEARCH PROJECT PRESENTED TO THE DEPARTMENT OF POLITICAL SCIENCE AND PUBLIC ADMINISTRATION IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF A DEGREE OF MASTER IN RESEARCH AND PUBLIC POLICY, FACULTY OF ARTS, UNIVERSITY OF NAIROBI

2022

DECLARATION

I declare the work contained in this research project is my original work and has not been previously submitted to any university towards the award of degree.

Signed ....Linnabel..... Date..10/November/2022

AGHAN LINNABEL

C52/8164/2017

The research project has been presented with my approval as the university supervisor

Signed..... Date..11/11/2022..

Dr. Henry Amadi

Department of Political Science and Public Administration,

University of Nairobi

DEDICATION

I dedicate this thesis to my family for their unending encouragement. Your support and inspiration during my studies enabled me to complete this project. I’m indebted to you all.

ACKNOWLEDGEMENT

I am deeply obliged to my supervisors Dr. Henry Amandi for your exemplary guidance and support which made this project a success. I acknowledge your unwavering support, encouragement and patience and availing time to listen to me when I sought your assistance. I also appreciate the department staff of political science and public administration who were always willing to attend to the students.

Lecturers of master in research and public policy, faculty of arts course of University of Nairobi thank you for your commitment and sacrifice to teach and impact knowledge to students. To the University of Nairobi library personnel, I highly appreciate your tireless effort to ensure that the students access the required learning materials the right time. May the Almighty God bless you in your endeavors to assist learners to access the information.

Most importantly I express my gratitude to God for enabling me to complete this program through provision of financial, physical and mental wellbeing.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS/ACRONYMS

BRT Bus Rapid Transit

CBD Central Business District

MOA Matatu Owners Association

MOT Ministry of Transport

PSV Public Service Vehicle

SACCO Savings and Credit Societies

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Regulatory policy aim at ensuring that regulations uphold social, economic growth and development of a nation in order to achieve broader societal objectives for instance environmental sustainability, social welfare and strengthening of the rule of law (OECD, 2021). Regulatory policies therefore address permanent needs to guarantee that regulations and regulatory frameworks are warranted, are of acceptable quality and aim to achieve set and expected policy objectives. Regulatory policy also aid policy makers in reaching informed decisions on what to regulate, whom to be regulated, and how to regulate. As an integral part of effective public governance, regulatory policy also helps to smoothen linkages among state, citizens, businesses and the civil society (SeMarzo, Michaele, & Matk, 2015).

Transport industry is a very vital element in any nation. The industry contributes significantly to economic growth and development of nations as most major investments are routed through this industry. As such, the industry calls for well thought public policies to align the activities and bring order in this crucial sector. The importance of public transportation especially for cities, aims at ensuring attainment of a sustainable mode of transportation for the citizenry (Mordi & Razzaque, 2019). However, regulation of the matatu sector is also a contested field of competing socio-economic interests in public transport. In countries that are in developing phase particularly those in Asia, Africa and Latin America where rail transit is inadequate to meet transportation needs, the use of road transportation is the common mode (Kenworthy, 2007). In Brazil for instance, buses are a popular mode of transportation which serves the needs of commuters majorly from poor backgrounds in Northeast Brazil to areas such as the Amazonia (Piva da Silva, 2017). In a way, public transit has made it possible for those who do not own vehicles to move from their residence to their places of work. This

is mainly the case in developing countries that have not capitalized on sustainable modes of transportations such as the rapid bus transit system. Intervention through public policy formulation and proper implementation is necessary to eliminate urban transport systems inadequacy that hider them from functioning effectively to serve the citizenry. This inadequacy especially within cities and big towns adversely affect daily life thus making it more unpredictable and complicated and translates to social disorder in the public transport. In such scenarios, the true economic potential of a country and its people becomes unrealizable.

A reliable transport system is particularly crucial in developing countries, where large proportions of the people are poor. To ease access to cities and big towns where greater economic opportunities exist is essential both for individual mobility convenience and for economic growth (Oira & Makori, 2015). Analysis from Alup (2017) and Chitere (2006) past experience in regard to public transport indicate that if the system is promoted correctly and rationally regulated, it can play more imperative roles in addressing mobility needs through reduction of the need for unprofitable conventional public transport services. Adequate support of this industry in major policy issues can increase safe travelling public options, income and employment generating activities.

In most developed economies, government controls structural arrangements and infrastructure in the public transport. Whereas in some cities such as those in China and Vietnam that are prone to heavy traffic of vehicles, concerted efforts have been directed towards the full adoption of the bus rapid transport system, in others, such as those in Cambodia where bus services are yet to operate optimally, not much has been done to meet the needs of urban commuters (Choocharukul & Ung, 2011). In the United States of America, public transportation is monopolized by the government which has greatly enhanced the efficiency in the sector. However, for Japan, the majority of the transport services both

rail and road are offered by private firms. The reason for this is that the provision of transport services in Japan has been a daunting task especially for the government policy makers and regulators.

In the Sub-Saharan African, success in transport has been negligible (Rizzo, 2017). This is demonstrated in African cities that are yet to institute a comprehensive transport policy to address the concerns of the citizenry. Particularly in South Africa, there is a chaotic informal transportation system in the form of minibuses which operate without route management. The minibus industry constitutes 60% of the commuters' public transport in South Africa and is characterized by regular strikes from service providers which makes it unsafe and unreliable. Other than that, the minibuses are known for their disregard for traffic laws as most of them carry excess passengers (Ayodele, 2009). In the context of Nigeria, road transport is the most popular which makes up 90% of the movement of both passengers and freight (Adebambo & Adebayo, 2009). The road network is managed by the local government.

1.2 Statement of the Problem

Kenya's public transport system has for a long time been characterized by a myriad of challenges including inadequate infrastructure, general inefficiency challenges and poor quality of transport services among others (Gathungu, Wasike & Bor, 2017). Being Kenya's capital city, Nairobi has borne the most brunt of these transport challenges, including long waiting hours, traffic jams particularly in major activity zones and general disorder among the transport service providers and the beneficiaries of transportation services (Ministry of Transport, 2018). Most of these challenges are associated with lacking commitment to enforcement of public policies and regulatory measures to curb them and also increased demand for transport services as a result of rapid urbanization.

In view of these challenges, the government of Kenya has attempted to intervene in Kenya's transport sector through a variety of means, the most famous of which is "The Michuki Rules," which were

introduced in 2004 following the appointment of the late John Michuki as the Minister for Transport. Broadly, “The Michuki Rules” pursued to regulate the industry through elimination of standing and overcrowding in public transport vehicles. They also established safety belts and speed governors, but although this was perceived as a move towards right direction in bringing back sanity to public transport sector in Kenya, their success was only short term. They were subjected to widespread opposition from the stakeholders in the Matatu sector and criticisms from the academic community. To most Matatu operators, “The Michuki Rules“ were conceived and implemented without their involvement as stakeholders and moreover, they were discriminatorily and targeted public transport vehicles alone rather than being applicable to all vehicles. Provisions as mandated by Michuki rules were deemed costly for matatu owners, sparking nationwide matatu strikes and outrage (Institute of Policy Analysis and Research, 2017)

Following the exit of the late John Michuki from the Tranport Ministry and his subsequent demise, the enforcement of “The Michuki Rules” has been considerably relaxed. Yet the disorder in public transport especially within the Matatu sector persists. Among government measures to curb the disorder in the public transport has been the construction of bypasses as a parallel measure to deal with congestion and traffic jams. These measures seem not to eliminate the menace or improve the situation. While National Transport and Safety Authority (NTSA) strive to ensure that the roads remain safe through enforcement of regulations, its achievements are minimal (Njoroge, 2015). Today, it is estimated that the cost in monetary terms of the time spent on commuting in Nairobi is about Ksh 1.89 billion annually (BRT Solutions, 2016).

Government efforts to regulate public transport sector lead to revision of traffic rules to deal with the issue of the route numbers. The section amended Rule 55 of the Traffic Rules of the Legal Notice Number 161 which purported to create a new sub-rule (b) and which imposed obligation of PSV

owners to paint route numbers on the offside of their vehicles. These rules were to enhance road traffic quality and encompass traffic discipline, traffic safety, road infrastructure as well as environment protection, economic and administrative order in road traffic (MoT, 2015). In 2010, the Minister of Transport gave the directive to all matatu operators to be affiliated and register a SACCO. The objective was to guarantee self-regulation, cushion matatu owners from cartels, ensure efficient operations and eventually eradicate the sectoral cartels. Frequent police crackdown on faulty public service vehicles and offensive crew continue although they have yielded poor results overtime. Generally, there is necessityfor regulations to protect vulnerable groups from matatu sector players and cartels that control the sector.

However, because of the disjointed nature of the institutional frameworks, the public transport industry is flooded with diverse stakeholders ranging from individual, groups, institutions and association, with varied and sometimes conflicting interests. This has resulted in the emergence of a number of syndicates that manage the industry and especially the cartels present in all routes due to the regulatory loopholes created by the absence of clearly spelt out regulatory policies and proper enforcement of the policies by government ministries and departments and the county government. This study therefore sought to establish the link between government regulatory policy and policy enforcement on the lack of order in public transport system, with specific reference to the Matatu transport sector in Nairobi County, Kenya.

1.3 Research Questions

This study sought to answer the following broad research question; what is the relationship between government regulatory policy and conduct of public transport in Nairobi County?

Specifically, the study was guided by the following research questions:

i. What is the relationship between weak transport regulation policy and disorder in matatu transport sector in Nairobi County?
ii. How does moderate transport regulation policy influence disorder in matatu transport sector in Nairobi County?
iii. How does strong transport regulation policy influence disorder in matatu transport sector in Nairobi County?
iv. How does the combined strength of government regulation influence disorder in Matatu transport sector in Nairobi County?
v. How does public policy enforcement influence disorder in the matatu transport sector in Nairobi County?

1.4 Research Objectives

The broad research objective was to determine the relationship between government regulatory policy and conduct of public transport in Nairobi County

The specific objectives are:

i. To assess the relationship between weak transport regulatory policy and disorder in the matatu sector within Nairobi City County.
ii. To find out the influence of moderate transport regulatory policy on disorder in matatu transport sector within Nairobi City County.
iii. To examine how strong transport regulatory policy influence disorder in matatu transport sector within Nairobi City County.
vi. To assess the effect of combined strength of government regulation on disorder in Matatu transport sector in Nairobi County?
vii. To assess how public policy enforcement influence disorder in the matatu transport sector in Nairobi County?

1.5 Justification of the Study

Matatu industry serves about 70 percent of the capital's 1.3 million commuters therefore becoming the main stakeholder in the public transport industry within the Nairobi City. Kenya's capital city, Nairobi has borne the most brunt of transport challenges which hider mobility and slow economic growth which calls for an investigation into the subject matter. The findings are crucial to policy makers especially those in government and regulators of the matatu industry by providing insights in relation to factors contributing to lack of order in this crucial sector of the economy.

1.5.1 Academic Justification

This study contributes to past literature in the context of matatu industry. The study findings contribute to literature pertaining government regulation and public policy enforcement in attaining order in the matatu sector. The study open areas for further research stemming from research gaps in the transport industry.

1.5.2 Policy Justification

The study is bound to attract the attention of policy makers. The reason for this is that the transport sector in Kenya is wholly in the hands of the private sector that is not optimally organized. There are a number of accusations that have been leveled against the use of matatus as a mode of transportation. These issues have revolved around sanity concerns and the indiscipline among the operators specifically the conductors and drivers. The findings will shed light to policy makers as regards the areas of regulation that can improve on orderliness in the public transport sector.

In addition, the study findings could be beneficial to the Ministry of transport in Kenya to point out what regulatory policies to be initiated to bring orderliness in public transport. Moreover, the study benefits the private sector with information on how to improve orderliness in the public transport

industry particularly the matatu sector. The private sector being a partner of the government in the development of the transport sector can gain insights on the inherent problems encountered by matatus and how to make the transport system reliable. The consumers of the public transport service can benefit from the improved consultation environment aligned with stakeholder's needs and preference.

1.6 Scope of the Study

The study was carried out on legally registered matatu SACCOs operating within Nairobi city County, in Kenya. According to Nairobi City County (2019), there are over 400 matatu SACCOs operating within the City of Nairobi. The study was further confined to the officials appointed to run the matatu SACCOs who are better placed to provide the required information for the study, the matatu crew, commuters and city county askaris.

The study was carried out between January 2021 and July 2022 and the mode of primary data collection involved the use a questionnaires, interview guide and document analysis. The interview guide was used to solicit data from matatu SACCO officials who preferred not to fill the questionnaire due to unavailability.

1.7 Limitation of the Study

The major limitation of the study was the hesitancy of target respondents to divulge key facts. To overcome the challenge, the researcher reassured the respondents of identity protection besides reassuring confidentiality of all information they disclosed. Secondly, challenges of filling the questionnaire by due to the nature of busy schedule of respondents. Most Sacco officials start work in early hours from 5am upto10pm therefore have little time to fully fill the questionnaires. To address this limitation, respondents were allowed relatively longer period of two weeks to permit them to respond while interview schedule was also used to gather data.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter highlights the related literature reviewed on public transport, government regulation policy and public policy enforcement. The chapter also discusses the theoretical review, research hypotheses, operational definition of study variables and the conceptual framework.

2.2.1 Public Transport Sector

In both the developed and emerging economies, the transport sector is among the major segments of service sectors. It accounts for 8-9% of GDP. Public transport in Kenya and specifically in urban zones is dominated by operators of matatus. The name 'matatu' found its origins from a Swahili word 'tatu' that means 'three'. When public transport services started in Kenya in 1960s, passengers were charged a travel fee of three coins equivalent to thirty Kenyan cents for a one way trip in most routes. Since then, the matatu has become the most common and important means of travel in Nairobi city, major towns and the rest of the country (Klopp, 2014). It's worth noting that other transit options are present in Nairobi, though matatus remain the prevalent choice by city commuters despite the persistence disorder that is experienced in the sector.

At independence in 1963 the average number of matatus operating in Kenya was not more than four hundred and they operated as taxis. As the population rose, matatu operators lobbed for more space. The then president Jomo Kenyatta responded by allowing the matatu operators to ferry travelers without attaining any special license although they had to conform to the prevailing traffic and insurance regulations. This can be said to have marked the beginning of insanity on the Kenyan roads particularly as the number of vehicles increased on Kenyan roads. For instance, by 1990 out of the 33,300 vehicles registered in the country, 17,600 of them operated matatu business. This number

would rise to 40,000 by 2003 (Chitere, 2006). These vehicles availed employment to about 160,000 citizens and created massive revenue for the government from charges such as duty, licenses, VAT among other levies. Although the industry plays a principal role in conveyance of both goods and persons in urban and rural areas, it equally has a long history of disorder that involved the public service vehicles.

The evolution and increase of the matatu, has been fast and easy to respond to country's unmet travel needs, and has continuously remained the dominant mode of transport in the country and specifically in urban centers. Public transport in Kenya has for a long time attracted many policy debates that has remained unsettled todate. Such policy debate continue to involve practitioners, policy makers, as well as general public on handling the matatu sector that has persistently remained resistant to almost all policy responses. In Kenya, the matatu industry plays a significant part in economics and mobility of a country. In reflection to the importance of this sector, it places it in the limelight for its inability to comply regulations of the public transport. The sector is also notorious of attracting careless workforce that is resistant to industry rules and regulations. Nonetheless, the matatu sector call for supportive policies that would bring order in the matatu transport sector.

2.2.2 Government Regulatory Policy

Government regulation is viewed as an outstanding category of policy that entail identifiable forms and patterns of political conflicts. Government regulation differs from other regular patterns associated with policies of distribution and redistribution (Kerwin, 2003). Additionally, regulatory policy indirectly shapes distribution of costs in society unlike other kinds of policy with visible transfers and direct resource allocation. Therefore, the regulatory policy can be understood from various perspectives. Regulation is sometimes carried out entirely as a matter of state and legal enforcement; whilst for others, it is mostly regarded as work of social actors who watch upon other actors, and also

oversight the governments. State-centered conceptions of regulation characterize regulation with reference to state-made laws (Ma, 2019), while society-centered analysts view the propagation regulatory institutions beyond the state. From legal perspective, regulation is viewed as a legal mechanism, while for criminologists and sociologists it is understood as another layer of social control (Braithwaite, 2020) and still to some, it is the incorporation of laws at different levels such as primary, secondary, and tertiary, social and even professional norms. The core objective of a regulatory policy is to bring sanity in a given industry or sector. Despite the efforts of the Kenyan government to formulate policies to regulate the matatu sector, there exist a high level of disorder that has been experienced across different regimes.

Regulation is often by governments also referred to as public regulation encompass the implementation of rules by government agencies pegged on prevailing laws (Brown & Jackson, 1994). Regulation is also depicted by (Bertog, 2013) as the application of legal instruments to implement social-economic objectives. As such, a government may possibly implement social regulations in order to realize goals. On the opposing side, there exists self-regulation which means rules are imposed voluntarily and backed up by an informal code of practice like rules of membership rather than law. However, an important aspect discussion around different connotations and characteristics of regulation is the intimate relations between regulation and the existence of an administrative agency. An emphasis on the workings, merits, characteristics and failures of regulation by administrative agencies is prevalent in the literature on regulation and reveals that rule making and rule-making agencies are closely connected (Wajone, 2017). Braithwaite (2020) highlights the limits of regulation as a transaction between the state and business and argues that unless there is some third party (or a number of them) in the regulatory game, regulation will be captured and corrupted by money power, a vice that is prevalent in the matatu sector.

Boyer and Michael (1976) who were among the early researchers of regulation, indicated that conversion of social groupings create new arrangements of economic and non-economic systematized structures. Their arguments viewed capitalist economies as a function of social institutional systems and not as mere government role in regulating an economy. Their approach also sought to put into outlook that economies would be more efficient in presence of regulations that govern institutions for instance transport sector. Thomas (2006) in reference to regulating transport sector in the United States, concluded that railway system had become more efficient and exploitation of common citizens had reduced when the federal government exercised strong control of the industry. The focus of Thomas (2006) was however in the railway industry whose infrastructure and operations are different from those in the matatu sector. The study was also carried out in developed economy whose market features differ greatly from a developing country like Kenya.

Kamuhanda and Schmidt (2009) delved into the core segment of the public transport market in city of Kampala, Uganda. The study targeted drivers, stage personnel, conductors and passengers. To the commuters, the Matatu presents a cost-effective chance to travel to work place, transport goods and link with business allies. While the study sought oral opinions from respondents, the current study seeks to use a more reliable data instruments and integrate questionnaire and interview guide to gather data in the Kenyan context. Harding (2017) investigated operations of the matatu termini and their effect on traffic flow and suggested spatial planning interventions that could be used to resolve the limitations identified. The data was gathered by reviewing existing literature documents and administering questionnaires to matatu crew and commuters. Interview of key informants was conducted on traffic police officers, City County officials in infrastructure and inspectorate sections and managers of matatu SACCO terminus. The study established that matatus offered nearly 80 % of public travel services in Kenya hence they are crucial to economic development. The study however

did not give clear findings on traffic flow which was the major objective. Present study sought to fill the gap by finding out how regulation influences conduct in the public transport.

Macharia, (2017) conducted a study on the regulation in the transport industry with specific focus on the matatu sector in Kenya. The study reviewed literature on economic and regulatory economic domains to analyse impact of matatu transport, the labor law and related regulations on the matatu industry. Using descriptive research design, the study focused on matau SACCOs as the population of the study which consisted of matatu owners and operators. The findings of the study indicated that the matatu sector employees a substantial number of individuals as drivers, conductors as well as those tasked with running the SACCOs that manage the matatus. It also found that contacts of employment were issued to matatu operators as well as records to identify the matatu operators. Current study sought to divert from employment of the industry and focus on how regulation influences conduct of Matatu industry.

Joewono and Kubota (2007) sought to establish the attributes that explained user priorities and perceptions regarding a service. Findings indicated that 12-14 seater PSVs was preferred as an efficient road user in Bandung, Indonesia, that added to merely 18% of traffic flow and still in a position to ferry over 50% of passengers. Conversely, they lead to congestion, as they stop to pick or drop at any point, waited for commuters or made circular movements in dense areas. Present study sought to analyze broader aspect of public transport role in the Kenyan context that could be significantly different from Indonesia.

In Kenya Matatu owners have formed route-based groups, which regulate entry and operations. More so the government requires that matatu owners/operators to join SACCOs are self-help groups accredited for organizing persons and sectors and supporting members to pool resources and enlarge

their enterprises. The SACCOs have been functional in other sectors of the economy, together with partial operation in the transport sector. Stemming from the ineptness of SACCOSs in organizing matatus on inter-city routes, the TLB compelled matatus be affiliated to SACCOs or join transport management companies to guarantee self-regulation, allow efficient transport operations. This would shield matatu owners from exploitation of cartels, and abolish cartels from the transport sector. Still, to thwart cartels from controlling the SACCOs, the TLB ordered SACCOs to be formed by authentic vehicle owners only qualified for registration.

Matatu industry also forms reasonable proportion of the countries private sector economy although the sector has mostly operated amid minimum regulations whilst regulation is crucial for every sector whether private or public because uncontrolled market place cannot produce results in tandem with the public interests.

2.2.3 Public Policy Enforcement

Public policy is described by Thomas (2017) as a system of courses of action, laws, governing measures, and funding priorities that concern a given topic spelt out by a government entity or its representative. Thomas further stressed that public policy is commonly embodied in legislative acts, constitutions and judicial decisions. The major policy options to augment the effect of transport services towards the improvement of productivity of downstream sectors and to assist the most productive to grow faster with the aim of lowering cost to the service customer, reduction of the time spent while transporting goods or persons spent and improving safety, reliability and predictability (Mitullah & Onsate, 2013). Achieving these objectives calls for investment in modern infrastructure, equipment and civil construction. More importantly, investments are some kind of institutional reforms and related changes in policies and regulations requiring focus of sustained inclusive dialogue within government and its external agencies, a factor that is lacking in the Kenyan matatu sector.

A reliable transport system is particularly crucial in developing countries, where large proportions of the people are poor. To ease access to cities and big towns where greater economic opportunities exist is essential both for individual mobility convenience and for economic growth (Oira & Makori, 2015). Analysis from Alup (2017) and Chitere (2006) past experience in regard to public transport indicate that if the system is promoted correctly and rationally regulated, it can play more imperative roles in addressing mobility needs through reduction of the need for unprofitable conventional public transport services. Adequate support of this industry in major policy issues can increase safe travelling public options, income and employment generating activities.

The research work of Koseeyaporn et al. (2017) revealed that facilitation of resources like management was jointly supported by government agencies. Based on data collection, key success factors as well as obstacles were observed. Matching the researchers' and the companies was a long process that was also found to be a source of concern. This study however was contextually based on private sector and the institutions of higher learning. Present study sought to study policy enforcement in a different context of public transport in Kenyan context. The study also incorporated the government regulation as indicated by three levels of regulation to test the influence on disorder in matatu sector, public transport industry.

This research by Yalmanov (2020) adopted a methodological approach to the analysis of policy-making, and content of public policy. The policy-making analysis, critically reviewed popular conceptual models in political science to examine the factors that make prior models unfit to explain the tenets of fundamental attributes. The study revealed that policy decisions features factored in the context of political science were intersected. This study focused on political aspect of policy and analyzed existing policy documents while still inclined to public policy making. The current study

conceptually focused on the policy enforcement on a different context of public transport and gathered both primary data and secondary data from the operators/ SACCOs within Nairobi County.

Policy responses geared at the industry have more often faced challenges. The Michuki rules that aimed at decongesting city CBD did not facilitate ease mobility of people or goods, and plans to outlaw 14-seater psvs was suspended owing to pressure from matatu sector operators (Asingo, 2016). While the study sought oral opinions from respondents, the current study seeks to use a more reliable data instruments and integrate questionnaire and interview guide to gather data in the Kenyan context. Harding (2017) investigated operations of the matatu termini and their effect on traffic flow and suggested spatial planning interventions that could be used to resolve the limitations identified. The data was gathered by reviewing existing literature documents and administering questionnaires to matatu crew and commuters. Interview of key informants was conducted on traffic police officers, City County officials in infrastructure and inspectorate sections and managers of matatu SACCO terminus. The study established that matatus offered nearly 80 % of public travel services in Kenya hence they are crucial to economic development (Mitullah & Onsate, 2013). Basically the idea of SACCOs was received well and was expected to bring forth the potential of organizing the sector. However, primarily the implementation aspect of the policy has remained thorny and a big challenge to players in the matatu sector. In some cases, cartels who strategize themselves along the city routes brand matatus by colouring and naming them (Macharia, 2017). This competition still creates a dangerous and stressful work environment thus involvement in formal and informal associations could possibly balance this competitive environment.

2.3 Theoretical Framework

The study was guided by New Institutionalist Theory in broader terms and sociological institutionalism in particular. The new institutional theory draws attention to the cultural and social factors that impact

organizational decisions, actions, and how the private and public organizations adopt rationalized meanings (DiMaggio & Powell, 1991). From the perspective of this theory, social environment affect the behaviors, practices and ideas of people and groups and are probable to have solid diffusive impacts on behavior of participants in organizational life, whether incorporated in formal policies or not. According to new institutional theory, public institutions are taken for granted. Because public institutions acquire status of social contracts, they are certainly not questioned and just like in the Kenyan matatu sector, they resist any form of incremental change or reform made by single actors hence result to social disorder. The theory postulates that rules initially designed to regulate public institutions tend to rapidly vanish hence inherent regulatory issues in public administration. The issue for public management is therefore viewed to be largely influenced and transformed by informal structures (William & Ocasio, 2018).

Sociological institutional theory partially arose from the reflection that organizational structures and policies are mostly coupled with practical activity. Stemming from this recognized reality, the question arises on why structures and policies are put into place. The sociological institutionalist postulates that structures, policies and forms reflect institutional representations in the broader environment that make it feasible to build great institutions in circumstances where little control is probable. Evidence contrasts between policy talk and practical action and perceives a hypocritical contradiction between the two as the social problem (Bruton, Ahlstrom, & Puky, 2009). This dispute is extended to account for lack of significant organizational reform and expected failure of implementation. As such, sociological institutionalism assumes that behavour in a given society is subjected to influence from socially acceptable norms and cultures regardless of whether or not such behaviour is good, hence change is viewed as the logic of appropriateness. Additionally, sociological institutionalists posit that sources of such transformation sometimes can occur at critical moments, where existing rules of

behaviour and institutions can be defied. It is also based on the assumption that institutional rules, constraints and responses guide the behaviour of major actors during the policy-making process and for this reason many policies fail. It assumes that institutions are comprised of cognitive elements; cultural, normative and regulative fundamentals that determine stability and significance of social order.

Sociological institutionalists puts forward that institutions set their rules that govern and guide the internal operations of organizations as well as their wider operating business environment. This can be stressed to encompass policy framework that govern operations and behavior of public transport players. Proponents of institutional theory emphasize the importance of other sources of constraints such as conformity pressures, legitimacy imperatives and informal interactions influence (Bohek & Shele, 2016: Brunsson & Olsen, 2016). An industry like matatu sector should cope with pressures and constraints applied by the external social context it operates in. Since regulations are formulated to reshape the public sector agencies and to redraw the boundary between the state regulation and the market, sociological institutionalism will provide guidance on adoption of regulations and processes. Therefore, insights from sociological institutionalism can guide the study on how well-structured government regulation might contribute to alignment of public transport sector within Nairobi County. Based on sociological theoretical framework, it is also noteworthy feasibly in the Kenyan context of public transport industry, that if the government agencies draw policies for regulating the sector and building capacity to enforce rules in all its aspects, chaos would be reduced and users would enjoy more orderly and quality services. It is within the logic of appropriateness premises that the study seeks to find out how far the laws, rules, norms and values within the public sector are associated with the level of order or lack of it within the matatu transport sector and therefore becomes appropriate theory to guide the present study.

2.4 Research Hypotheses

The broad research hypothesis guiding this study was;

Government regulatory policy has contributed to poor conduct in matatu transport sector Nairobi County.

The study will be guided by the following specific hypotheses;

H1: Ineffective government regulation policy has contributed to persistence of disorder in the matatu transport sector in Nairobi County.

H2: Public policy enforcement has contributed to disorder in the matatu transport sector in Nairobi County.

2.5 Operational Definition of Study Variables

Independent variables;

Government Regulation – Is a key tool for achieving the social, economic and environmental policy objectives of governments. It refers to rules, orders or directives made and maintained by an authority/government in order to control the activities or the way players behave in the public transport sector.

Indicators

Indicators of matatu sector regulation range from weak to strong levels as indicated below

Weak regulation: Written rules that are clearly communicated to matatu sector players such as; complain channel for commuters, price or fare schedule, work uniform for matatu crew, painting of yellow line on matatus and terms of crew employment.

Moderate regulation: membership to a SACCO, stakeholder conduct, route allocation, designated drop and pick terminals, traffic flow, and vehicle condition

Strong regulation: licensed passenger carrying capacity, registration or deregistration of operators, compliance to traffic rules (such as speed limit and safety belts) and insurance of PSVs

Public Policy enforcement - Is ensuring that institutionalized public transport sector and road policies, laws and regulations in particular are executed or complied with to solve intended relevant and real-world problems as stipulated by the government in response to social issues in the matatu transport sector.

Indicators

Policy enforcement ranges from poor to successful enforcement. Indicators used for enforcement were;

Infrastructure provision – Ability or inability of infrastructure to uphold the growth pace in the number of vehicles. Capacity impairment such as fewer highway lanes and closed sections favours congestion in major roads and towns.

Inspection -ways of ensuring compliance, cost-benefit analysis, issuance of permits and licenses

Information integration - Clear communication, coordination and information sharing on the objective or policy road map

Level of effectiveness of enforcement – Use of historical data, international comparison outcome indicator- E.g. the number of preventable deaths and injuries from roads

Dependent variable

Public transport disorder- considerable intrusion of public peace as to institute substantial threat to safety and well-being of commuters, road users and general city population.

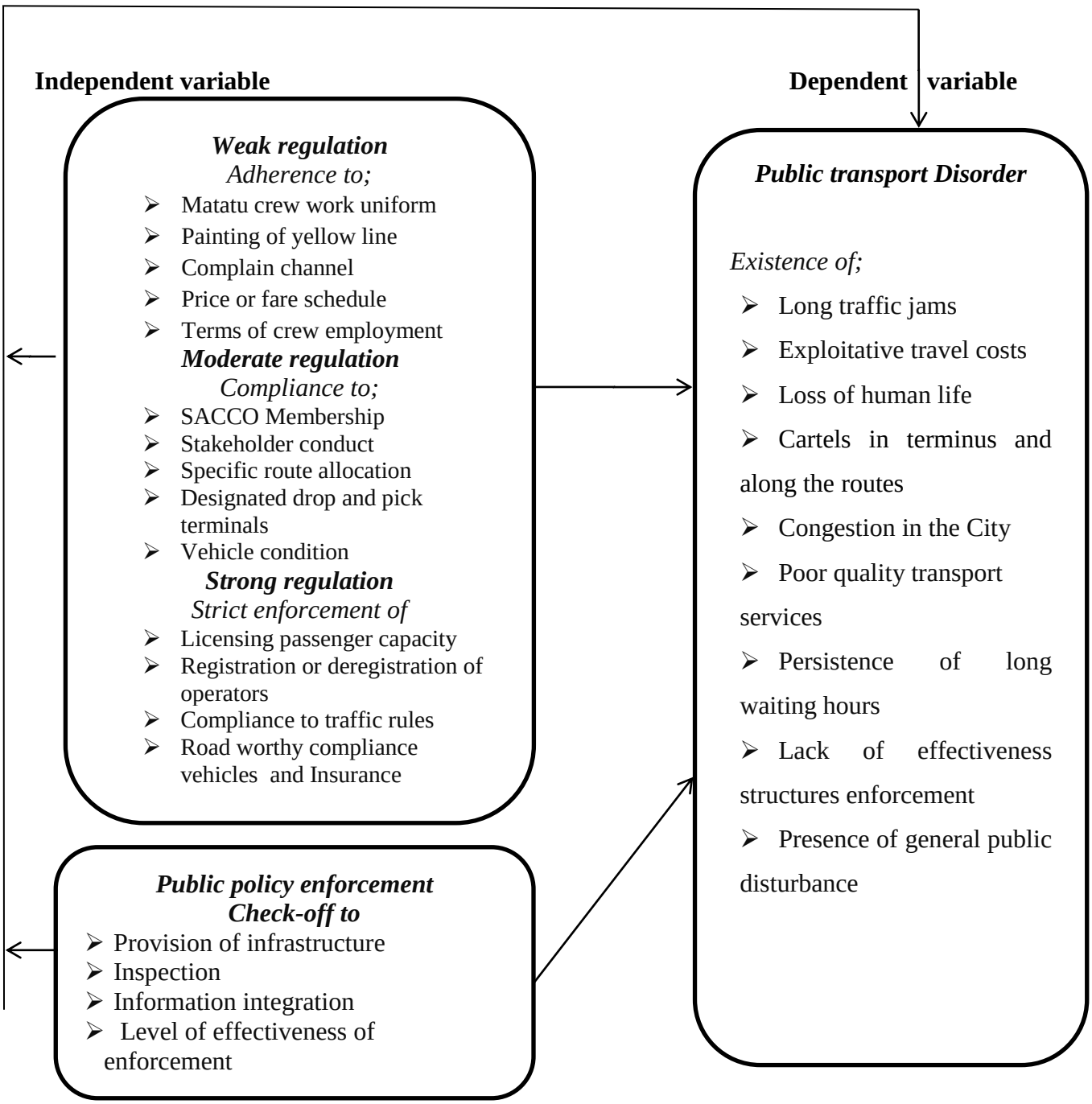
Indicators; Disorder – congestion on roads, poor condition of PSVs, exploitative travel costs, long traffic jams, control of by matatu routes and terminus by cartels, loss of life, noise, long waiting hours and breakdown amid trips

Public transport Order – interaction between individual players and public regulators and policy enforcers enhance smooth operation of public transport sector

Indicators of Order- regulated smooth traffic flow, quality transport services, fair travel costs, low traffic across routes, less accidents and injuries by and to road users, general public peace, and short waiting hours.

2.5.1 Conceptual framework

The conceptual framework depicts the relationship between government regulatory policy, the public policy enforcement and the conduct of matatu transport sector. The model is presented in the figure 2.1 below.



Source: researcher, 2022

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This section discusses the methodologies adopted for the study with specific emphasis on the research design, study area as well as population and sample size, data collection techniques and data analysis are also covered in this chapter.

3.2. Proposed Research design

The study employed descriptive design that suitably seems to explain the phenomenon of interest. Descriptive designs are designed to describe the characteristics of the phenomenon by underscoring studying of situations in order to explain the connections between variables (Suanders et al, 2009). The present study sought to collect and analyse data at a given point in time, hence adopt cross-sectional study and also consider the variations in level of regulation overtime through longitudinal research design.

3.3. Area of Study

Nairobi is the capital city of Kenya situated in the Southern-Central Kenya, about 140 KMs South of the Equator. It is bordered by 113 KM^2 of cliffs, plains, and forest cover that makes up the only park situated in a major city, the Nairobi National Park. It neighbours the Eastern edge of the Rift Valley, The Ngong Hills at the West. The famous Mount Kenya is situated North of the city of Nairobi, and borders Mount Kilimanjaro towards the South-east side. Nairobi city is referred as the most densely inhabited city within East African block, with an estimated current population of about 3.5 million hence the 14th largest city in the continent. The city of Nairobi houses the Kenya's capital, and is therefore the destination for many visitors. The capital city is well connected by the regional road and rail network and the international airlines that link it to major urban centres in East Africa. Matatus are the most common method of public transportation in the city of Nairobi. They are minibuses owned

privately, and arguably the most preferred form of local transportation. Most matatus operate within the capital city of Nairobi, its environs and suburbs and ply routes to other major towns around the country. The authorized route name(s) is imprinted on all matatus along a yellow line on the side of the minibus, buses and matatus plying particular routes alongside specific route numbers. The mode of transport are organized into co-operative forms of organizations called SACCO which are Saving and Credit Cooperatives and as at the end of June 2020, there were 401 matatu SACCOs in Nairobi City County (MOA, 2020).

3.4 Target Population

Distinct definition and choice of target population is very paramount in research work. It ensures proper identification of sources from which the data are to be gathered (Zikmund, Babin, Griffin, & Carr, 2010). The target population for the study comprised of all 401 matatu SACCOS operating in Nairobi City County (MOA, 2019) and 420 city county askaris in the inspectorate service, traffic unit who man the terminals and parking lots. Commuters in the 9 trunk routes were also interviewed. Results of sample size were as indicated in Table 3.1 below.

Table 3.1: Target population

Trunk Roads and routes	Description	Matatu Saccos	County askaris for routes/ terminus
1. Thika Road	Matatu SACCOs plying Thika road	52	57
2. Juja Road	Matatu SACCOs plying Juja road	35	29
3. Waiyaki way	Matatu SACCOs plying Waiyaki road	41	44
4. Mombasa Road	Matatu SACCOs plying Mombasa road	40	43
5. Lang'ata Road	Matatu SACCOs plying Lang'ata road	25	22
6. Ngong Road	Matatu SACCOs plying Ngong road	33	31
7. Jogoo Road	Matatu SACCOs plying Jogoo road	35	40
8. Limuru Road	Matatu SACCOs plying Limuru road	37	40
9. Other roads	Matatu SACCOs plying other roads	103	114
TOTAL		**401**	**420**

3.5 Sampling Procedure

According to Kothari (2004), the sample must be of an optimum size, ideal sample should not be unreasonably large or too small but large enough to give an appropriate confidence interval. A sample is any subset of sampling units from a population which has the desired characteristics of the populations (Nachmias & Nachmias, 1996) and thus inferences can be drawn from it. A proportionate stratified random sampling is the most efficient technique for sampling the respondents since the target population comprises of different matatu Saccos plying the main trunk routes in Nairobi City. The proportion to the sample size is guided by the analytical consideration of the researcher, such as variation in population (Zikmund et al., 2005). Where certain strata exhibit high variability, such strata are sampled more heavily to enhance sample efficiency so as to yield smaller random sampling error

Barlett, Kotrlik and Higgins (2001) ssampling table was used to arrive at sample size. Derived from the tables, from a population of 401, the sample size was estimated at 196 individuals or entities. With the sample size was almost 50% of the total population therefore reflected the characteristics of the population, so those sample findings can be generalized to the population. The proportions or weights were used to calculate the number of respondents distributed as per routes within the city and its environs. This sampling method is projected by Mwanje (2001) as appropriate for large populations. From each strata, SACCO chairmen or their deputies were purposely selected for the study for interviewing because they are in a position to provide required information since they understand how the matatu sector operates. In addition other SACCO officials and matatu crew (drivers and conductors affiliated to SACCO membership) were randomly selected and interviewed. A sample of 196 of Nairobi city county traffic unit askaris were selected from a population of 420, using the table for determining appropriate sample size in survey research by Barlett, Kotrlik and Higgins (2014).196 traffic askaris were picked randomly and 196 commuters were sampled proportionate to the trunk routes. Results of sample size were as indicated in Table 3.2 below.

Table 3.2: Sampling Frame

Sacco/Route	Matatu crew	Sacco Officials	County Askaris For routes/ terminus	Commuters
Thika road	12	13	27	25
Juja road	8	9	14	17
Waiyaki way	10	10	21	20
Mombasa road	10	10	20	20
Langa'ta road	6	6	10	12
Ngong road	8	8	14	16
Jogoo road	9	9	19	18
Limuri road	9	9	19	18
Other roads	24	26	52	50
Total	**96**	**100**	**196**	**196**

3.6 Data Collection Techniques

The study utilized primary and secondary data sources. The primary data was sourced through self-administered questionnaire and semi-structured interviews. The use of a semi-structured interview was preferred for the study as it allows liberty to the interviewer to frame specific questions subject to organizational specific context as well as allowing the researcher to introduce additional questions that explore research objectives given the specific nature of events existing within an organization (Saunders et al., 2009). Secondary data on matatus plying certain routes was obtained from MOA, MoT and SACCO records to supplement the primary data.

3.7 Reliability and Validity of Instruments

Reliability of a research instrument is achieved when instrument measurement procedures produce similar results on repeated trials (Hughes, 2003). To ensure reliability of the research instrument, Cronbach Alpha coefficient was computed for the Likert-type questions. The Alpha values lies from 0 (absence of internal consistency) to 1 (presence of complete internal consistency) where minimum acceptable value is 0.70 (Cronbach & Shavelson, 2004).

A research instrument is considered valid if it measures what it is intended to measure (Sekaran, 2003). While there exists many facets of validity, the present study was concerned with face and content validity. To test for face validity, the researcher did a pre-test to ensure that questions were suitable in obtaining information as per research objectives.

Content validity addresses the degree to which the indicator echoes basic content of the phenomenon of interest. To obtain content validity, ideally two steps are followed. They include: specification of the concept over a thorough review of literature as well as suitable representation of phenomenon through construction of specific items (Depoy & Gitlin, 2011). Where all domains are known, the researcher can then sample items reflecting each domain. To ensure content validity, a pilot test was carried out on the questionnaire with the resolve of refining the questionnaire so that there are no problems during data collection procedure and data coding, recording and processing procedures.

3.8 Data Analysis Procedures

To prepare data for analysis, several significant steps that include editing, data coding and entry, were undertaken. Such activities assist in conversion of raw form to fewer classified forms that are more suitable for making analysis (Cooper & Schindler, 2014).

After coding, data was analysed principally through both descriptive analysis and inferential statistics. Descriptive analysis involves fundamental transformation of data to allow description of the basic features like distribution, central tendency as well as the variability. After the descriptive analysis was completed, the information was presented through frequency tables.

Inferential statistics involves the statistical analysis from which inferences are drawn from certain populations based on observations of a representative sample. Statistical analysis performed on the data can be simple, bivariate statistical or multivariate statistical analysis that test hypotheses and models involving multiple (three or more) variables (Zikmund *et al.,* 2009). The study utilized Pearson moment correlation analysis to test for the relationship between the variables.

3.9 Proposed Study Outline

The study is broken down into five chapters. The first chapter entitled "Introduction," It provides among other things, a background of the study, the problem the general and specific research objectives. The chapter also discusses scope as well as the significance of the study. The subsequent chapter is entitled "Literature review and Theoretical Framework" concerning the topic of study. The literature review is based on the specific objectives in previous chapter. The chapter also highlights the theoretical and conceptual framework. Chapter three is entitled Research Methodology". It highlights the research design, target population, sampling procedure, data collection techniques, reliability and validity of instruments and data analysis. Chapter four is entitled "Data Analysis and Presentation and Discussion." It is in this chapter that the findings of this study are presented based on data gathered from the field. Chapter five entitled "Summary, Conclusions and Recommendations. This chapter presents a summary of the entire study, its conclusion and recommendations.

CHAPTER FOUR: DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1. Introduction

This chapter presents the data from the field based on thematic and sub-thematic areas of study objectives and proceeds to analyze and interpret them. Based on the said thematic areas, the chapter is divided to four broad sections: Introduction; Regulatory policy discussed under three sub-themes; weak, moderate and strong policy regulation and public transport disorder in the matatu transport sector in Nairobi County; and public policy enforcement and public transport disorder in the matatu transport sector in Nairobi County and the conclusions of the study.

4.2 The Strength of Government Regulation and Disorder within the Matatu Public Transport Sector in Nairobi County, Kenya

Government regulatory policy in the matatu sector was identified in the current study as the independent variable. Three items were used to indicate the levels of regulation; weak, moderate and strong regulation. First, each individual indicator was analyzed separately and composite scores were computed to determine their separate effect on disorder in the Matatu public transport sector. A combined effect of the three indicators was then analyzed to assess how they jointly influenced the persistence disorder experienced in the Matatu transport sector. The results were as presented in sub-sections 4.2.1- 4.2.4 below.

4.2.1 Weak Regulatory Policy and Disorder in the Matatu Transport Sector in Nairobi County, Kenya

Weak regulation was measured by written rules that are clearly communicated to matatu sector players such as; complain channel for commuters, price or fare schedule, work uniform for matatu crew, terms of crew employment and painting of yellow line. Matatu crew, Sacco

officials and commuters were given specific items rated on a five-point Likert scale ranging from strongly agree (SA); agree (A); moderately agree (MA); disagree (D); strongly disagree (SDA) from which to choose relating to each indicator. The analyses were presented in Table 4.1-4.6.

Table 4.1: Frequencies, percentages, means and standard deviations for weak public transport regulation policy

Statement	SD F(%)	D F(%)	MA F(%)	A F(%)	SA F(%)	Mean	Std. Dev
The SACCO has clear rules that guide actions of matatu crew and employees	55 (44.00)	26 (20.80)	26 (20.80)	10 (8.0)	8 (6.40)	2.13	1.242
Actions of other support and stage workers contracted are monitored by Sacco management	39 (31.20)	45 (36.00)	20 (16.00)	13 (10.40)	8 (6.40)	2.24	1.187
Disciplinary actions against operators who defy the rules are taken	10 (8.00)	14 (11.20)	47 (37.60)	37 (29.60)	17 (13.60)	3.30	1.089
There are proper complain channels that commuters can use to launch complaints	50 (40.00)	34 (27.20)	20 (16.00)	8 (6.40)	13 (10.40)	2.20	1.308
The conditions of matatu crew employment contract contributes to misconduct while at work	50 (40.00)	36 (28.80)	18 (14.40)	8 (6.40)	13 (10.40)	2.18	1.304
Matatus crew are always in work uniform	10 (8.00)	10 (8.00)	42 (33.60)	22 (17.60)	41 (32.80)	3.59	1.116
Matatus display the fare schedule for the route	10 (8.00)	13 (10.40)	31 (24.80)	32 (25.60)	39 (31.20)	3.62	1.255
The fare schedule are adhered to	41 (32.80)	30 (24.00)	28 (22.40)	13 (10.40)	13 (10.40)	2.42	1.308
Composite scores						**2.71**	**1.226**

The research analysis on Table 4.1 indicated that majority of the SACCO management disagreed that matatu SACCOs has clear rules that guide actions of matatu crew and employees (64%), majority were also in disagreement that actions of other support and stage workers contracted are monitored by Sacco management (67%), while majority of SACCO management refuted that meaningful disciplinary actions are taken against operators who defy the rules (68%). Small proportion of commuters agreed that there are proper complain channels that commuters can use to launch complaints (32%) with bigger response being moderate. Most matatu crew and Sacco management were for the view that the conditions of matatu crew employment contract did not contributes to misconduct while at work (67%). A big proportion of SACCO managers and county askaris agreed that the number matatus crew are always in work uniform during work hours (63%), while large proportion of SACCO managers (56.80%) agreed that fare/price schedules are displayed or communicated by matatu operators within the Nairobi city. Regarding whether the fare or price schedules stipulated are adhered to, most of the commuters were in disagreement (55.60%) and explained that the fare is mostly guided by demand and supply of the services across different periods of the day or week.

The research results presented in Table 4.1 showed that the scores of mean for the indicators used to measure weak regulation policy was 2.91 and standard deviation of 1.226. The result revealed a moderate agreement with the reaction to each questionnaire item M (=2.91). Based on individual item responses, outcome showed that to a great extent, SACCO managers disagreed that SACCOs has set clear rules that guide actions of matatu crew and employee (M=2.13, SD=1.242) and the actions of other support and stage workers contracted are monitored by Sacco management (M=2.24, SD=1.187). Response by managers on disciplinary actions against operators who defy the rules are taken was (M=3.30, SD=1.089). Presence of

proper complain channels that commuters use to launch complaints was (M=2.20, SD=1.308). The conditions of matatu crew employment contract contributes to misconduct while at work (M=2.18, SD=1.304). The Matatus are always in work uniform (M=3.59, SD=1.116). Matatu display fare/price schedule within the Nairobi city (M=3.62, SD=1.255). Commuters on whether fare schedules are adhered to (M=2.42, SD=1.308).

Regarding weak public transport regulation, varied responses were noted with a large group of respondent inclined to moderate agreement to most items. The results pointed that there exist underlying issues that call for tackling to enable the matatu stakeholders to be able to instill order in public transport.

Pearson's Product Moment technique was done to determine the association between weak regulation policy and disorder in matatu transport sector in Nairobi County. The purpose was to identify direction of the linkage between weak regulation policy and disorder of the sector operators.

Correlation coefficient (r) range of between 0.81 to 1.0 is very strong; from 0.61 to 0.80 is strong; from 0.41-0.60 is moderate; from 0.21- 0.40 is weak and from 0.00 to 0.20 indicate no relationship (Hair et al., 20 06). The stronger the association of the two variables, the closer the Pearson correlation coefficient, *r*, will be to either +1 or -1 depending on whether the relationship is positive or negative, respectively (Cooper & Schindler, 2003).

Table 4.2: Correlation results for weak regulation and disorder in matatu transport sector

	Disorder in Matatu transport sector
Weak regulation policy	
Pearson correlation	0.411*
Sig (2-tailed)	0.000
N	125

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

The analysis results in table 4.2 indicated a correlation of 0.411 and a significance of 0.000 (two tailed test). The results showed a moderate and significant relationship between weak regulation policy and disorder in matatu transport sector ($r=0.411$, P-value<0.000). Therefore weak regulation policy can be said to have a positive moderate and significant relationship with persistence disorder experienced in matatu transport sector within the Nairobi city.

Based on the perspective of the Sociological Institutionalism theory that guide this study, social environment affect the behaviors, practices and ideas of people and groups and are probable to have solid diffusive impacts on behavior of participants, whether incorporated in formal policies or not. While it can be understood that weak regulation is mostly informal and heavily intertwined with social norm and culture practiced in the matatu sector where little control is probable, its contribution to disorderliness in the matatu sector cannot be overlooked. It can therefore be deduced that in line with the theory, weak regulation policy has a positive correlation with disorderliness experienced in the matatu sector as it moderately explains the variations in the disorder of the sector within Nairobi County.

4.2.2 Moderate Regulatory Policy and Disorder in the Matatu Transport Sector in Nairobi County, Kenya inevitably

Indicators of moderate regulation were; membership to a SACCO, stakeholder conduct, levels and nature of compliance, designated drop and pick terminals, route allocation, traffic flow, vehicle and condition. Sacco officials and matatu crew were given items rated on a five-point Likert scale ranging from strongly agree (SA); agree (A); moderately agree (MA); disagree (D); strongly disagree (SDA) from which they chose relating to each indicator. Separate interview was done on city county askaris particularly on designated drop and pick terminals, route allocation and traffic flow. Analysis was presented in Table 4.3 below.

Table 4.3: Frequencies, percentages, means and standard deviations for moderate regulation policy

Statement	SD F(%)	D F(%)	MA F(%)	A F(%)	SA F(%)	Mean	Std. Dev
Matatus are fairly allocated routes of operating	22 (17.60)	21 (16.80)	32 (25.60)	26 (20.80)	24 (19.2)	3.072	1.006
A matatu that is not a Sacco member cannot operate within the Nairobi city	10 (8.00)	13 (10.40)	31 (24.80)	32 (25.60)	39 (32.20)	3.62	1.055
There has been regular inspection to track road unworthy matatus	41 (32.80)	30 (24.00)	28 (22.40)	13 (10.40)	13 (10.40)	2.42	1.208
Matatu carries the licensed passengers capacity	14 (11.20)	23 (18.40)	28 (22.40)	26 (20.80)	34 (27.20)	2.19	1.074
There are clear designated drop and pick terminals for matatus	25 (20.00)	20 (16.00)	26 (20.80)	27 (21.60)	27 (21.60)	3.41	1.002

Matatu are the contributor of slow traffic	14 (11.20)	25 (20.00)	22 (17.60)	34 (27.20)	30 (24.00)	3.3	1.121
All matatus operating in the city are registered to a Sacco	11 (8.8)	16 (12.80)	20 (16.00)	40 (32.00)	38 (30.40)	3.6	1.018
Composite scores						**3.087**	**1.069**

Over 60% of Sacco management and matatu crew agreed that there is fairness in allocation of operating routes and still over 80% of their responses pointed that matatu not registered as Sacco members cannot operate within the Nairobi city. Regarding whether there has been regular inspection to track unroad worthy matatus by county askaris or traffic police, majority of matatu crew and Sacco management disagreed on any meaningful crackdown on unroad worthy vehicles in the city, response stood at (56.80%). A big proportion of matatu crew and Sacco managers agreed that matatu carries the licensed passengers' capacity (70 %) as such, most county askaris were in agreement that there are clear designated drop and pick terminals for matatus (63%). The percentage of respondents who agreed that matatus are the contributors to slow traffic stood at (68.8%) while those who agreed that PSV vehicles operating in the city are registered to a Sacco out stood at (77%).

Analysis presented in Table 4.3 indicated that scores of mean score for the indicators used to measure moderate regulation policy was 3.087 and standard deviation of 1.069. Based on individual item responses, indication were that, to a great extent, Sacco management and matatu crew agreed that there is fairness in allocation of operating routes (M=3.072, SD=1.006). A matatu not belonging to a Sacco member cannot operate within the Nairobi city

(M=3.62, SD=1.055). Regular inspection to track faulty matatus is effected (M=2.42, SD=1.208). Matatu carries the licensed passengers capacity (M=2.19, SD=1.074). There are clear designated drop and pick terminals for matatus (M=3.41, SD=1.002). Matatu are the contributor of slow traffic (M=3.3,SD= 1.121). All matatus operating in the city are registered to a Sacco (3.6; 1.018).

Regarding moderate regulation policy, there were diverse reactions with a big group of matatu crew and Sacco management largely in agreement to most items. This infers that there exist few issues that call for attention to allow the matatu operators to control disorder in matatu transport sector.

This section presents the results of the correlation analysis of moderate regulation policy and disorder in matatu sector using Pearson's product-moment correlation. Correlation results are reported at a significance level of 0.05 and results were as shown in Table 4.4 below.

Table 4.4: Correlation results for moderate regulation policy and disorder in matatu sector

	Disorder in Public transport matatu sector
Moderate regulation policy	
Pearson correlation	0.528*
Sig (2-tailed)	0.000
N	125

correlation is significant at the 0.05 level

The analysis results in table 4.4 indicated a correlation of 0.528 and significance P-values of 0.000 (two tailed test). This implied that the results showed a reasonably significant relationship between moderate regulation policy and disorder in public transport (r=0.528, P-value<0.000). Therefore moderate regulation policy is positively and significantly related to disorder in public transport, matatu sector within Nairobi City.

Findings of the second objective are at odds with the predictions of Sociological Institutionalism. Premised on the logic of appropriateness, it can be deduced that the moderate level of regulation by the matatu sector key players predictably have been unable to meet expectations given the sub-optimal nature of the social norms, practices and the transport industry culture to address persistence disorder.

The responses on moderate indicators of regulation policy were largely positive inferring that the matatu sector is fairly regulated as far as moderate regulation policy is concerned. The findings projects that despite moderate regulation, the matatu sector exhibits persistence disorderliness. These results were comparable to past evidence and are in line with those of Wajone (2017) who concluded that regulation is an uncertain exercise prone to failure and that its costs surpass the benefits and that it did not reduce risks for the regulated. The findings still echoed those of Braithwaite (2020) who revealed the limits of regulation as a deal between state and operators of business and argued that unless there is presence of third party intervention in the regulatory game, regulation is held captive and largely corrupted by money power.

4.2.3 Strong Regulatory Policy and Disorder in the Matatu Transport Sector in Nairobi County, Kenya

Indicators for strong regulation were: licensed passenger carrying capacity, registration or deregistration of operators, compliance to traffic rules and insurance cover for PSVs. The Sacco officials and matatu crew rated the questionnaire items on a five-point Likert scale rated as strongly agree (SA); agree (A); moderately agree (MA); disagree (D); strongly disagree (SDA) from which to choose relating to each indicator. Separate interview was done on city county askaris. Results of the analysis was presented in Table 4.5 below.

Table 4.5: Frequencies, percentages, means and standard deviations for strong public transport regulation

Statement	SD F(%)	D F(%)	MA F(%)	A F(%)	SA F(%)	Mean	Std. Dev
Traffic congestion is a major environmental concern	11 (8.80)	14 (11.20)	38 (30.40)	39 (31.20)	23 (18.4 0)	3.48	1.308
Matatu carries the licensed passengers capacity	14 (11.20)	23 (18.40)	28 (22.40)	26 (20.80)	34 (27.20)	3.34	1.074
Matatu that do not comply with rules are warned or deregistered	35 (28.00)	40 (32.00)	16 (12.80)	17 (13.60)	17 (13.60)	2.53	1.190
Condition of the vehicles operating in the city is monitored	30 (24.00)	45 (36.40)	16 (12.80)	20 (16.00)	14 (11.20)	2.5	1.181
Vehicles in poor working condition are deregistered or phased out	7 (5.60)	11 (8.80)	30 (24.00)	47 (37.60)	30 (24.00)	3.7	1.298
Crack downs on motor vehicles are effected regularly	30 (24.00)	53 (42.4)	9 (7.20)	13 (10.40	20 (16.00)	1.92	1.170
Insurance of Matatus is a major concern of traffic offense	25 (20.00)	50 (40.00)	10 (8.00)	22 (17.60)	18 (14.40)	2.66	1.202
Composite scores						**2.88**	**1.202**

The research analysis on Table 4.5 indicated the responses regarding strong regulation policy in the matatu transport sector. Regarding whether there has been improvement in freight distribution in the city to reduce traffic congestion and mitigate environmental impacts, most of the matatu crew respondents were in agreement that traffic congestion is a major environmental concern (79%). A big proportion of Sacco officials and matatu crew respondents agreed that matatu carries the licensed passengers capacity (70 %) as such, most Sacco officials respondents disagreed that matatus that do not comply with rules are warned or deregistered (72%). The percentage of Sacco officials' respondents who agreed that condition of the vehicles operating in the city is monitored stood at (39%) while the Sacco officials and matatu crew who agreed

that PSV vehicles in poor working condition are deregistered or phased out stood at (85%). Only 33% of county askaris agreed that regular motor vehicle crack downs are effected by traffic police within Nairobi city and still 40% agreed that insurance of Matatus is a major concern traffic offense.

Analysis results presented in Table 4.5 indicated scores of the mean for strong regulation policy in matatu transport sector was 2.88 and standard deviation of 1.202. From individual item responses, to a large extent respondents were in disagreement on improvement in freight distribution in the city to reduce traffic congestion and mitigate environmental impacts (M=3.48, SD=1.308). Matatu carries the licensed passengers capacity (M=3.34, SD=1.074). The Matatus that do not comply with rules are warned or deregistered (M=2.53, SD=1.190). Condition of the vehicles operating within the city is monitored (2.5, 1.181). Vehicles in poor working condition are deregistered or phased out (3.17; 1.298).

Regarding strong regulation policy of public transport, the reactions were varied with a large proportion agreeing or strongly agreeing on some items and in strong disagreement with other items. This indicates that there were mixed responses from Sacco officials, matatu crew as well as county askaris therefore projecting underlying issues that need to be addressed to strengthen the strong level of regulation policy in the sector.

Correlation results are reported at a significance level of 0.05 and results were as shown in Table 4.6

Table 4.6: Correlation results for strong regulation and disorder in matatu sector

	Disorder in Public transport matatu sector
Moderate regulation policy	
Pearson correlation	0.428*
Sig (2-tailed)	0.000
N	125
correlation is significant at the 0.05 level (2-tailed)	

The research analysis on Table 4.5 indicated the responses regarding strong regulation policy in the matatu transport sector. Regarding whether there has been improvement in freight distribution in the city to reduce traffic congestion and mitigate environmental impacts, most of the matatu crew respondents were in agreement that traffic congestion is a major environmental concern (79%). A big proportion of Sacco officials and matatu crew respondents agreed that matatu carries the licensed passengers capacity (70 %) as such, most Sacco officials respondents disagreed that matatus that do not comply with rules are warned or deregistered (72%). The percentage of Sacco officials' respondents who agreed that condition of the vehicles operating in the city is monitored stood at (39%) while the Sacco officials and matatu crew who agreed that PSV vehicles in poor working condition are deregistered or phased out stood at (85%). Only 33% of county askaris agreed that regular motor vehicle crack downs are effected by traffic police within Nairobi city and still 40% agreed that insurance of Matatus is a major concern traffic offense.

Analysis results presented in Table 4.5 indicated scores of the mean for strong regulation policy in matatu transport sector was 2.88 and standard deviation of 1.202. From individual item responses, to a large extent respondents were in disagreement on improvement in freight distribution in the city to reduce traffic congestion and mitigate environmental impacts

(M=3.48, SD=1.308). Matatu carries the licensed passengers capacity (M=3.34, SD=1.074). The Matatus that do not comply with rules are warned or deregistered (M=2.53, SD=1.190). Condition of the vehicles operating within the city is monitored (2.5, 1.181). Vehicles in poor working condition are deregistered or phased out (3.17; 1.298).

Regarding strong regulation policy of public transport, the reactions were varied with a large proportion agreeing or strongly agreeing on some items and in strong disagreement with other items. This indicated that there were mixed responses from Sacco officials, matatu crew as well as county askaris therefore projecting underlying issues that need to be addressed to strengthen the strong level of regulation policy in the sector.

Correlation results are reported at a significance level of 0.05 and results were as shown in Table 4.6

4.2.4 Combined effects of the Strength of Government Regulation and Disorder within the Matatu Public Transport Sector

The strength of government regulation on disorder within the Matatu public transport sector was analyzed based on the three indicators that were construed as the ranges within which the strength of regulation can be measured. Their combined effect was then analyzed to enable the confirmation or rejection of the first hypothesis.

The three indicators were broken down and measured with several statements based on a Likert scale and a composite score for each was computed. The composite score for the three indicators were adopted to jointly measure the strength of government regulation. The results are presented in Table 4.7.

Table 4.7: Mean and Standard Deviation of Strength of Government Regulation

Variable	Mean	Standard Deviation
Weak Regulation	2.714	1.226
Moderate Regulation	3.087	1.069
Strong Regulation	2.883	1.202
Mean	**2.894**	**1.1657**

Based on the results presented in Table 4.7 above, the mean score of the strength of government regulation was 2.894(SD=1.165) which inferred a moderate effect of the three combined indicators. This indicates that there were varied responses from Sacco officials, matatu crew as well as county askaris on the three measures of regulation therefore projecting underlying issues that need to be addressed to strengthen government regulation policy in the Matatu public transport sector within Nairobi City.

This section presents correlation analysis results of strength of government regulation policy on disorder in public transport. Correlation results were reported at a significance level of 0.05 and results were as shown in Table 4.8below.

Table 4.8: Correlation results for strength of government regulation and disorder in Matatu transport sector

	Disorder in Public transport matatu sector
Strength of government regulation	
Pearson correlation	0.439*
Sig (2-tailed)	0.000
N	125
correlation is significant at the 0.05 level (2-tailed)	

The analysis results in Table 4.8 indicated a correlation of 0.439 and a significance of 0.000 (two tailed test), which indicate positive and significant coefficient. The results further showed

a moderately significant relationship between the strength of government regulation policy and disorder in public transport (r=0.439, P-value<0.000). Therefore the strength of government regulation policy can be said to have a positive and significant association with persistence disorder in public transport, Matatu sector within Nairobi City. Based on the discussion of findings under each of the three indicators and the insights of the sociological institutionalism theory, the first hypothesis that stated strength of government regulation has contributed to persistence of disorder in the matatu transport sector in Nairobi County was confirmed.

4.3 Public Policy Enforcement and Disorder in the Matatu Transport Sector in Nairobi County, Kenya

Public policy enforcement in the matatu sector was identified in the current study as the second independent variable. Indicators that were adopted to measure public policy enforcement were: provision of infrastructure, inspection, responsive regulation, information integration and the level of effectiveness of enforcement. Respondents were given items rated on a five-point Likert scale ranging from very large extent (VLE); large extent (LE); moderate extent (ME); very small extent (VSE); no extent (NE) from which to choose relating to each indicator. The analysis results were presented in Table 4.9 below.

Table 4.9: Means and standard deviations for Public Policy Enforcement

Statement	NE F(%)	VSE F(%)	ME F(%)	LE F(%)	VLE F(%)	Mean	Std dev
There are proper effective structures that enhance the activities of matatu sector	43 (34.4)	42 (33.6)	20 (16.00)	11 (8.8)	9 (7.2)	2.21	1.202
Travel delays occur when the infrastructure capacity limit is reached or exceeded	10 (8.00)	14 (11.2)	18 (14.4)	46 (36.8)	37 (29.60)	3.69	1.228
Existing policies enhance optimization of city logistics	14 (11.20)	21 (16.8)	31 (24.8)	37 (29.6)	22 (17.6)	3.34	1.330
Policies in the matatu sector are responsive to changing	10 (8.00)	16 (12.8)	45 (36.00	30 (24.0)	24 (19.20)	3.34	1.341

social needs							
Matatu sector activities within the city are controlled by cartels	17 (13.60)	19 (15.2)	24 (19.20)	37 (29.6)	28 (22.4)	3.30	1.251
There is a support system that allow smooth connectivity within the county	33 (26.40)	29 (23.2)	1 (0.80)	34 (27.2)	28 (22.4)	2.96	1.219
The county management is aware of the cartels network presence in the matatu sector	14 (11.20)	10 (8.0)	24 (19.20)	46 (36.8)	31 (24.80)	3.56	1.020
There is a central information system that is accessible	36 (28.8)	26 (20.8)	45 (36.0)	10 (8.00)	8 (6.40)	2.42	1.190
Most inspection structures within a “single inspectorate” are merged	11 (8.80)	17 (13.6)	40 (32.0)	37 (29.6)	20 (16.0)	3.30	1.199
Matatu sector inspection agencies meet to harmonize practices and share information	34 (27.2)	33 (26.4)	37 (29.6)	10 (8.0)	11 (8.8)	2.45	1.177
Limiting re-inspection of the same issue by different inspectorates in matatu sector is practiced	20 (16.0)	25 (20.0)	37 (29.6)	26 20.8)	17 (13.6)	2.96	1.095
Composite scores						**3.048**	**1.204**

Presentation of research analysis as per Table 4.9 indicated that most of county askaris, and matatu crew respondents acknowledged that there are proper effective structures that enhance the activities of matatu sector (68%), while majority of the matatu crew and county traffic askaris acknowledged that travel delays occur when the infrastructure capacity limit is reached or exceeded (66%). More than half of the Sacco officials and county traffic askaris were in agreement that existing policies enhance optimization of city logistics (66%), minority of

matatu crew further disagreed that existing policies enforcement in the matatu sector are responsive to changing social needs (48%). However majority of matatu crew and Sacco officials were in agreement that matatu sector activities within the city are controlled by cartels (61%). In equal proportions, the matatu crew and Sacco officials either agreed or disagreed on the existence of a support system that allow smooth connectivity within the county that hinder or enhance public transport order (49.60%).

Sacco officials and matatu crew who agreed that the county management is aware of the cartels network that man the matatu sector that result to disorder in the public transport and matatu sector in particular stood at (60%). In equal proportions the Sacco officials and county traffic askaris were in response there is a central information system that is accessible (49.6%), majority of county traffic askaris agreed that most inspection structures within a "single inspectorate" are merged unless for special cases (77%). However majority of matatu crew and Sacco officials were in disagreement that matatu sector inspection agencies meet to harmonize practices and share information (54%). Minority of the county traffic askaris disagreed on the practice of limiting re-inspection of the same issue by different inspectorates in matatu sector practiced that hinder or enhance public transport order (36%).

Regarding the public policy, there were similar opinions on the items with most largely agreeing and others disagreeing or moderately being in agreement. This indicates that in the issue of public policy, some issues have not been wholly addressed.

As presented in Table 4.9, average scores for public policy enforcement as an independent variable was 3.048 and standard deviation of 1.204. From particular items' mean and standard deviation, it was apparent that the Sacco officials, matatu crew and county traffic askaris

mostly approved the state of public policy enforcement. In agreement that there existed proper effective structures that enhance the activities of matatu sector (M=2.21, SD=1.202), matatu crew acknowledged that travel delays occur when the infrastructure capacity limit is reached or exceeded (M=3.69, SD=1.228), existing policies enhance optimization of city logistics (M=3.34, SD=1.33), matatu crew on policies in the matatu sector being responsive to changing social needs (M=3.34, SD=1.341). Matatu sector activities within the city are controlled by cartels (M=3.30, SD=1.251. There is a support system that allow smooth connectivity within the county (M 2.96, SD=1.219). Sacco officials ad matatu crew on whether county management is aware of the cartels network presence in the matatu sector (M=3.56, SD=1.020). Responses by Sacco officials and county traffic askaris on existence of a central information system that is accessible (M=2.42, SD=1.190), County traffic askaris on whether most inspection structures within a "single inspectorate" are merged (M=3.30, SD=1.199), Sacco officials and matatu crew on matatu sector inspection agencies common meetings to harmonize practices and share information (M=2.45, SD=1.177). County traffic askaris on practices that limit re-inspection of the same issue by different inspectorates in matatu sector (M=2.96, SD=1.095. This could be explained by analyzing means of items and small standard deviations indicating the concentration of responses around composite mean and standard deviation (M=3.048, SD=1.204) and agreed on responses scattered around the mean. Based on the outcome, it was deduced that respondents were of the opinion that public policy enforcement is an important factor in execution of conduct in public transport sector.

Correlation analysis was conducted to test the existence of a relationship between public policy enforcement and disorder in the public transport. The results are as presented in Table 4.10 below.

Table 4.10: Correlation results for public policy enforcement and Disorder in Matatu transport sector

	Disorder in Matatu public transport
Public policy enforcement	
Pearson Correlation	0.601*
Sig (2 tailed)	0.007
N	125
Correlation is significant at 0.05 level	

The analysis results in table 4.10 indicated a correlation of 0.601 and a significance of 0.000 (two tailed test), which imply a positive and significant coefficient. The results further showed a moderate and significant relationship between public policy enforcement and public transport disorder ($r=0.601$, P-value<0.007). Therefore public policy enforcement has positive and significant connection with disorder in public policy enforcement. The correlation results were reported as 0.601 and a significance of 0.007, which indicate a positive and significant coefficient. The fourth hypothesis that stated that public policy enforcement has contributed to disorder in the matatu transport sector in Nairobi County was confirmed.

From the related literature reviewed, their findings associated policy implementation with conduct of public institutions (Leman et al., 2017). Study by Smith (2017) found a positive and significant relationship between effectiveness in policy enforcement of regulations and change in behavior. Akinyi (2016) also found that better proper implementation is an important component of positive behavior change in publicly owned institutions. Results from this study concur with other studies and confirm a positive strong and significant link between public policy enforcement and persistence of disorder in public transport sector.

Projections from the "the logic of appropriateness" expect that the matatu sector players to be guided by rules from within and from the regulation enforcers. However, findings of this study portrayed the sector to conduct is in line with the theory predictions. This can be explained by the fact that public institutions acquire status of social contracts, which are sometimes not questioned and just like in the Kenyan matatu sector, they resist any form of incremental change or reform made by single actors hence result to social disorder.

4.4 Analysis of combined influence of government regulatory policy and public policy enforcement on disorder in matatu sector

In this study, the combined effect of government regulatory policy and public policy enforcement on matatu sector disorder was tested using inferential statistics.

Correlational analysis was done to establish the connection between three levels of government regulation and public policy enforcement on matatu sector disorder in the public transport. This sought to establish whether there existed a linkage between government regulation and public policy enforcement on matatu sector disorder. The results were presented in Table 4.11 below.

Table 4.11: Correlation matrix for government regulation and public policy enforcement on Disorder of matatu sector

	Disorder of Matatu Sector		
	Pearson correlation	Sig (2-tailed)	N
Government regulation	0. 440*	0.000	125
Public policy enforcement	0.566	0.046	125

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

The analysis results presented in Table 4.11 revealed significant positive coefficients among strength of government regulation 0.440, p-values of 0.000 and public policy enforcement

0.566, p-values of 0.046. The variables had a moderate positive correlation that was significant on persistence disorder in the matatu transport sector. This indicated that government regulation and public policy enforcement had a positive influence on the matatu sector disorder.

The results of this study were consistent with those Sarkin (2019) that found a positive and significant link between policy implementation and behavior alteration success. The findings by Gaes (2018) also found that enforcement of examinantion regulations reduces chances of malpractice by public learning institutions and contributes significantly to enhancing credibility. In line with findings of this study, Abuyeka (2014) found there is a need to adopt international standards of regulation to streamline public sector. It was further stressed that disturbance brings about the element of distress and aggression which contributed to unrest and more unacceptable behaviour. As established by Gehring (2007), noise and crowding has a damaging effect on public safety as it derails the efforts of instilling order.

4.5 Chapter Conclusion

This chapter presented the data from the field, analyzed and interpreted according to study objectives. The first independent variable was indicated by the three levels of regulation; weak, moderate and strong regulation that formed the basis for specific objectives. The second independent variable was public policy enforcement while the dependent variable was the disorder in the public transport sector. Test for relationships among study variables was done by Pearson Moment Correlation. A combined effect of the two independent variables was also done to test their joint effect on the dependent variable.

Weak regulation was measured by written rules that are clearly communicated to matatu sector players such as; complain channel for commuters, price or fare schedule, work uniform for

matatu crew, terms of crew employment and painting of yellow line. The research findings showed scores of mean for weak regulation policy was 2.91 and standard deviation was reported at 1.226. Study results revealed a moderate concurrence with the response in each questionnaire item. This could be interpreted to mean that there existed several underlying concerns that required to be addressed to allow the matatu stakeholders to be able to instill order in public transport. The analysis results for correlation indicated a moderate and significant relationship between weak regulation policy and disorder in matatu transport sector ($r=0.411$, P-value<0.000). Therefore weak regulation policy pointed to a moderate positive significant linkage with persistence disorder experienced in matatu transport sector within the Nairobi city.

Indicators of moderate level of regulatory policy were; membership to a SACCO, stakeholder conduct, levels and nature of compliance, designated drop and pick terminals, route allocation, traffic flow, vehicle and condition. The research findings indicated mean scores for moderate regulation policy was 3.087 and standard deviation of 1.069. This implies that there exist few concerns that are to be ironed out to allow matatu operators to be able to control disorder in matatu transport sector. The correlation analysis were ($r=0.528$, P-value<0.000) which implied a reasonably significant association between moderate regulation policy and disorder in public transport. Therefore moderate regulation policy pointed to a positive and significant connection with disorder in public transport, matatu sector within Nairobi City. The responses were largely positive inferring that the matatu sector is fairly regulated as far as moderate regulation policy is concerned. The findings were interpreted that despite moderate regulation, the matatu sector exhibits persistence disorderliness. Findings of the second objective were at odds with the predictions of Sociological Institutionalism. Premised on the logic of appropriateness, it can be

deduced that the moderate level of regulation by the matatu sector key players predictably have been unable to meet expectations to address persistence disorder in the matatu sector.

Strong level of public regulatory policy was measured by: licensed passenger carrying capacity, registration or deregistration of operators, compliance to traffic rules and insurance cover for PSVs. The research findings demonstrated that scores of mean for the indicators used to assess strong regulation policy in matatu transport sector was 2.88 and standard deviation of 1.202. The correlation analysis results showed a moderately significant relationship between strong regulation policy and disorder in public transport ($r=0.528$, P-value<0.000). Therefore strong regulation policy does portray a positive and significant link with persistence disorder in public transport, matatu sector within Nairobi City. Combined effect of the three indicators that construed the strength of government regulation on disorder in the Matatu transport sector reported ($M=2.894$; SD1.165). Correlation analysis indicated ($r=0.439$, P-value<0.000). Therefore strength of government regulation policy is reported to have positive and significant impact on persistence disorder in public transport, matatu sector within Nairobi City.

From viewpoint of the Sociological Institutionalism theory that guide this study, public institutions acquire status of some sort of social contracts thus certainly not questioned and just like in the Kenyan matatu sector, they resist any form of incremental change or reform made by actors hence result to social disorder. It can therefore be deduced that in line with the theory, strong regulatory policy had positive significant influence on the disorderliness experienced in the matatu sector as it explains the variations in the disorder of the sector within Nairobi County

Indicators that were adopted to measure public policy enforcement were: provision of infrastructure, inspection, responsive regulation, information integration and the level of

effectiveness. The research findings pointed that on average, the scores for public policy enforcement statements as an independent variable was 3.048 and standard deviation of 1.204. The analysis results indicated a correlation of 0.601 and a significance of 0.007 which imply a positive and significant coefficient. Therefore public policy enforcement can be inferred to be positively and significantly related to disorder in public policy enforcement.

The study analyzed the combined effect of government regulatory policy and public policy enforcement on matatu sector disorder was tested using inferential statistics. The study findings of the correlation tests pointed to a positive and significant coefficient of the three indicators of regulatory policy (weak government regulation 0.400, p-values of 0.042; moderate government regulation 0.507, p-values of 0.000; strong government regulation 0.499, p-values of 0.000; public policy enforcement 0.566, p-values of 0.046). Although the values were slightly lower than for individual effects, they still remained positive and significant for all the independent variables. This implied that government regulation and public policy enforcement had a positive influence on the matatu sector disorder. All the four hypotheses were therefore confirmed.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary of findings and draws conclusion in line with objectives of the study. The chapter also presents recommendations for policy interventions, which should enhance government regulation and public policy enforcement in shaping the conduct of the matatu transport sector. The chapter further focuses on recommendations for future research direction.

5.2 Summary of Findings

This study purpose was to assess the influence of strength of government regulation and public policy enforcement on the conduct of matatu transport sector in Nairobi County, Kenya. In this regard, the study findings were expected to establish the influence of two the independent variables on the dependent variable.

The first specific objective of the study was to establish whether weak government regulation influenced disorder in the matatu transport sector in Nairobi County, Kenya. The correlation results were positive and significant. The analysis it was concluded that weak government regulation had a significant influence on conduct of matatu transport sector in Nairobi County, Kenya, interpreted as being shaped by culture, norms and sector practices.

The second specific objective of the study was to establish whether moderate government regulation influenced disorder in the matatu transport sector in Nairobi County, Kenya. The correlation results were positive and significant. The third specific objective of the study was to establish whether strong government regulation influenced disorder in the matatu transport

sector in Nairobi County, Kenya. The correlation results were positive and significant. The study established that strong level of government regulation had positive relationship with the conduct of matatu transport sector. This implied that there existed a linkage between the three categories of government regulatory policy and matatu sector conduct.

In reflection to the literature reviewed, government regulation was related to conduct of matatu sector. A study by Ikuteyijo and Agun (2018) found that regulation was a determining factor that dictated how an individual behaves in the face of adversity. When people are faced with challenges beyond their control, they tend to be frustrated and become hostile. They further found that the situation is even worse when decisions of a person lies wholly on hands of others who may take or fail to take remedial action, hence shaped how the affected individual may react or behave towards those in control. The study by Solomon et al. (2004) found a positive and significant relationship between improved regulated actions and positive behavior. They further found that disorder issues are multiple and varied and become a challenge especially if the affected individuals are confined within an already constrained environment. The nature of disorder was found to be a reaction against a certain system for better services which are not forthcoming.

The fourth specific objective of the study was to find out the influence of public policy enforcement on disorder in public transport within Nairobi City County. Significant correlations were obtained between public policy enforcement and the indicators of conduct of matatu transport sector that were examined by the study. Again, the study found that introduction of public policy enforcement correlated significantly with matatu sector conduct (disorder indicators). This led to confirmation of the fourth hypothesis stating that

public policy enforcement has contributed to disorder in the matatu transport sector in Nairobi County.

From literature reviewed, public policy enforcement was associated to better delivery of public services. Cameron and Quinn (2016) findings revealed that good practice and culture can express complexities central to everyday life in organizations and shapes the behavior of internal and external players. Contrary, Thomas (2015) disputed that social norm shapes personal or group conduct but urged that its behavior that guides the culture adopted by individuals. The study stressed that the way leadership react on those lead, makes the lead to develop a 'softer or harder skin' in order to cope. This study results however concurred with some of the reviewed studies and confirmed that, there existed a moderate positive relationship between public policy enforcement and persistence disorder in the public transport and matatu sector in particular.

5.3 Conclusions

From the literature, government regulation creates remarkable orderliness and sanity particularly in public institutions that aid in delivery of quality services to individuals, and groups. From the findings, it is evident that although public regulatory policies are present and operational, there remain other factors that hinder their ability to bring a sense of order in the public transport sector particularly within the Nairobi City County. The study draws conclusion as follows; that the weak level of regulatory policy in the transport sector had lesser influence on how the sector conducts its activities and indeed it could not be relied on as a mean of regulation to address persistence disorder in the sector. This observation disputes the assumption of self regulation. It can further be stressed that culture, practices and norms play a

central role on people behavior and conduct and would in most cases behave in a manner they find acceptable within their confines whether it's logically appropriate or not. This observation is in line with predictions of institutionalism theory whose proponents emphasize the importance of other sources of constraints such as conformity pressures, legitimacy imperatives and informal interactions influence that could dictate actions of a group within an environment. Weak regulation was found to have a moderate positive influence on persistence disorder in the Matatu sector in Nairobi County. This therefore implies that weak level of regulatory policy has a determinate effect on conduct of Matatu sector in Nairobi County, hence confirmation of the first hypothesis.

It was established that moderate level of government regulation had a moderately strong influence on conduct of matatu sector in public transport in Nairobi County, thus in support of the assumption that moderate regulatory policy moderate regulatory policy contributes to persistence disorder in the public transport and Matatu sector in particular hence confirmation of the second hypothesis that stated; moderate regulation contributed to persistence disorder in the matatu sector in Nairobi City County.

Strong regulation was positively and significantly linked to persistence disorder in the matatu sector in Nairobi County. This was in line with the new institutionism theory that postulates that rules initially designed to regulate public institutions tend to rapidly vanish hence inherent regulatory issues in public administration. Still the findings were in agreement with the viewpoint of the Sociological Institutionalism theory that portray public institutions to acquire status of some sort of social contracts thus certainly not questioned and just like in the Kenyan matatu sector, they resist any form of incremental change or reform made by actors hence

result to social disorder. Based on the findings, the third hypothesis was confirmed that stated; strong regulation contributed to persistence disorder in the Matatu sector in Nairobi County.

Public policy enforcement was found to positively and significantly contribute to persistence disorder in the matatu sector in Nairobi County. This implies that the enforcement of regulation policies was moderate but its impact in addressing the level of disorder in the matatu sector was not felt by commuters and other stakeholders in the matatu transport sector. Finding reflected the tenets of the new Sociological Institutionalism theory that perceive evidence as contrasting between policy talk and practical action hence projecting the hypocritical contradiction between the two as the social problem. This dispute can be extended to account for lack of significant organizational reform and expected failure of policy enforcement. Finding indicated that public policy enforcement contributed to the persistence disorder in the matatu sector in Nairobi County hence the confirmation of the fourth hypothesis.

The results indicated presence of combined moderate positive and significant influence of government regulatory policy and public policy implementation on the conduct of matatu transport sector in Nairobi County. This was in line with the new sociological institutionalism assumption that behavour in a given society is subjected to influence from socially acceptable norms and cultures regardless of whether or not such behavior is good, hence change is viewed as the logic of appropriateness.

5.4 Recommendations

As already indicate in Chapter 1, this study has several policy implications. With specific regard to government agencies, especially the Ministry of Transport, this informal (Matatu) transport sector contributes significantly to the economic progress. Study findings indicated

that government regulation and public policy enforcement influences the conduct of the matatu public transport sector in Nairobi County, Kenya. This implies that if the government would effectively enforce the proper regulatory framework that integrates all stakeholders' participation in the sector, conduct of matatu sector would be enhanced.

In regard to strong regulation policy, the study recommends that government regulation enforcers to adapt right strategies such as eliminating overlap in the enforcement agencies and embrace practices that limit handling of the same issue by different inspectorates.

The policy makers in the ministry of roads and infrastructure can be guided by the study finding to ensure proper effective structures that enhance the activities of matatu sector to reduce congestion and travel delays that occur to commuters when the infrastructure capacity limit is reached or exceeded.

Findings send insight to practitioners in the matatu sector such as Sacco management and matatu crew on practices in the matatu sector that are responsive to changing social needs of commuters and more so costumer focus.

Based on the findings, the regulatory policy enforcement agencies such as traffic askaris, traffic police among others are recommended to ensure regular and continuous crack down on faulty vehicles and ensure only licensed and matatus affiliated to Saccos operate in Nairobi.

The Sacco managers are recommended to strictly ensure the matatu crew are licensed and follow the rules set to enhance service delivery and be vigilant on the operators who are not registered by Saccos and liase with policy enforcers for better running of the matatu sector.

Findings of this study give insights to city county management and other steers of the matatu sector on presence of cartels that control the matatu sector operations within Nairobi city that injure the matatu owners and operators. The study therefore recommends the county government of Nairobi to address the cartel menace that contributes to disorder in the matatu sector.

The study makes recommendation to the city county traffic/inspectorate department on the importance of putting in place a central information system that that is accessible to sector players to enable effective sharing of ideas and information on addressing issues arising in the matatu sector and create harmony in the matatu sector operations.

Study provides insight to commuters on the expectations of transport service they get, existing policies that guard then and their safety while travelling.

REFERENCES

Abbott, K. W., & Snidal, D. (2009). Strengthening international regulation through transnational new governance: overcoming the orchestration deficit, *Vanderbilt Journal of Transnational Law*, 2, 34-40.

Abuyeka, A. (2014). Factors influencing institutional safety communication: empirical evidence.

Adebambo, S., & Adebayo, I. T. (2009). Impact of bus rapid transit system (BRT) on passengers' satisfaction in Lagos Metropolis, Nigeria. *International Journal of Creativity and Technical Development*, *1*(3), 106-119.

Akinyi, A. (2016). Institutional regulation vs change. Meta-analysis of learning institutions in developing countries. *Accident Analysis & Prevention*, *27*(3), 511-524.

Alup, T. R. (2017). Enforcement in the Traffic Safety Toolbox: A Primer on Traffic Safety, Institute of Transportation Engineers, Washington, DC

Anupam, K., Phyllis, P., Judith, T., & Dirk, W. (2016). The role of services in economic transformation – with an application to Kenya. *Supporting economic transformation.*

Asingo, H. M. (2016). *The institutional and organizational structure of public road transport in Kenya*. Institute of Policy Analysis and Research.

Barlett, J. E., Kotrlik, J. W., & Higgins, C. C. (2001). Organizational research: Determining appropriate sample size in survey research. *Information Technology, Learning, and Performance Journal*, *19(*1), 43-50.

Bertog, D. (2013). To regulate or not. Government role to economic and social welfare. *Journal of Political Science, 18*(66), 103-109

Bohek, J.S. & Shele, P.A. (2016). Analyzing policies: Rationality, behavior and institutions. New York: W.W. Norton & Co.

Braithwaite, J. (2020). Regulatory mix, collective efficacy, and crimes of the powerful. *Journal of white collar and corporate crime, 1*(1), 62-71.

Bruton, G. D. & Ahlstrom, D. (2003). An institutional view of China's venture capital industry: Explaining the differences between China and the West. *Journal of Business Venturing, 18*(2), 233–260.

Bruton, G. D., Ahlstrom, D., & Puky, T. (2009). Institutional differences and the development of entrepreneurial ventures: A comparison of the venture capital industries in Latin America and Asia. *Journal of International Business Studies, 40,* 762–778.

Buera, F. J., & Kaboski, J. P. (2009).The rise of the service economy. Working Paper 14822. Cambridge, MA: NBER

Busenitz, L.W., & Spencer, J.W. (2017). Country institutional profiles: Unlocking entrepreneurial phenomena. *Academy of Management Journal, 83(*7), 794–803.

Carrasco, J. A., & Cid-Aguayo, B. (2012). Network capital, social networks, and travel: an empirical illustration from Concepción, Chile. *Environment and Planning, 44*(5), 1066-1084.

Chitere, P. O. (2006). Efforts to improve Road Safety in Kenya, Achievements and Limitations of Reforms in the Matatu Industry, IPAR Policy Brief.

Chitere, P. O., & Kibua, T. N. (2004). Efforts to improve road safety in Kenya. *Nairobi, Institute of Policy and Research*.

Cooper, D. R. & Schindler, P. S. (2014). *Business Research methods.*12th Ed. McGraw-Hill Irwin, New York

Cronbach, L. J., & Shavelson, R. J. (2004). My current thoughts on coefficient alpha and successor procedures. *Educational and Psychological Measurement, 64*(3), 391-418.

Depoy, E. & Gitlin, L. N. (2011). *Introduction to research; understanding & applying multiple strategie*s 4th Ed. Elsevier Mosby. Missouri.

DiMaggio, P. J. & Powell, W.W. (1991). *The new institutionalism in organizational analysis,* Chicago: University of Chicago Press.

Eichengreen, B., & Gupta, P. (2013). The two waves of service-sector growth. *Oxford Economic Papers, 65*(1), 96-123

Eisenhardt, K. M. (1989). Agency theory: An assessment and review. *Academy of management review, 14*(1), 57-74.

Gaes, G. G. (2018). The impact of public education programs on exam release outcomes. *Reentry Roundtable on Education.*

Gathungu, J., Wasike, S., & Bor, G. (2016). Effect of public transport SACCO management on financial performance of matatu investors in Kenya: A case of matatu SACCOS in Kajiado North Sub-County, Kenya.

Gehring, T. (2007). International perspectives in correctional education. *Journal of Correctional Education, 58*(2), 213.

Ghani, E., & O'Connell, S. D. (2014). Can service be a growth escalator in low income countries?' Policy Research Working Paper 6971. Washington, DC: World Bank

Gikandi, B., Ombati, C., & Opiyo, P. (2009). Why matatu operators went on strike. Standard http://www.eastandard.net/news/InsidePage.php?id=1144010998&cid=159[Accessed 9 March, 2021].

Grieco, M., & Macdonald, K. (2006). Accessibility, mobility and connectivity: the changing frontiers of everyday routine. *European Spatial Research and Policy*, *78*(6), 1360-1380.

Harding, S. (2017). *Regulating the last mile: paratransit in Delhi* (Doctoral dissertation, University of British Columbia).

Ikuteyijo W. G., & Agun, M. O. (2018). *Institutional reform and orderliness in selected Nigerian public institutions.* Department of sociology and anthropology Obafemi Awolowo University.lle-ife.

Jensen, J., Rutherford, T. F., & Tarr, D. G. (2009). *Modeling services liberalization: The case of Tanzania*. The World Bank.

Joewono, T. B., & Kubota, H. (2007). User satisfaction with paratransit in competition with motorization in Indonesia: anticipation of future implications. *Transportation*, *34*(3), 337-354.

Kamuhanda, R., & Schmidt, O. (2009). Matatu: A case study of the core segment of the public transport market of Kampala, Uganda. *Transport Reviews*, *29*(1), 129-142.

Kenworthy, J. (2007). Urban planning and transport paradigm shifts for cities of the post-petroleum age. *Journal of Urban Technology*, *14*(2), 47-70.

Kerwin, C. (2003). Rulemaking: How government agencies write law and make. *Congressional Quarterly Press*, Washington DC.

Kirimi, E. K. (2012). The influence of cost leadership and differentiation strategies on the relationship between people oriented capital and competitive advantage of Kenyan firms certified by international standards organizations, Unpublished PhD thesis, University of Nairobi.

Koseeyaporn, P., Kaweekijmanee, K., Kitipongwatana, A., & Wiarachai, O. (2017). An empirical study of policy implementation of Thailand Talent Mobility Programme. *Journal of STI Policy and Management, 2(2), 95–110.*

Leman, T., Angie, K., & Tipah, J. (2017). Policy implementation and behavior of public institutions: Urban planning and development. *Economic and Development Studies*, *122* (9), 1287–1306.

Lounsbury, M. (2008). Institutional rationality and practice variation: New directions in the institutional analysis of practice. *Accounting, Organizations and Society, 33*, 349-361.

Luchebeleli, S. (2009). City Mps, Matatu Men in Demo over Bus Plot. *The People Daily (Nairobi), 29*.

Ma, C. (2019). Self-regulation versus government regulation: An Externality View Article in SSRN *Electronic Journal · 1-31*.

Macharia, C. G. (2017). *Regulation in the Transport Industry: A Case of Matatu Sector in Kenya* (Doctoral dissertation, United States International University-Africa).

Mitullah, W.V., & Onsate, S. O. (2013). Formalizing the matatu industry in Kenya: policy twists and turns overview. *The Institute for Development Studies (IDS), University of Nairobi,* 8(2)

Mordi, C., & Razzaque, A. (2019). *Investigating the organizational factors influencing information security management in the context of smart city organizations* (Doctoral dissertation, Brunel University London).

Mungai, M., & Samper, D. (2006). No mercy, no remorse: personal experience narratives about public passenger transportation in Nairobi, Kenya. *Africa Today 52*(3),51-81.

Mwanje, J. I. (2001). *Qualitative research process*: Social science research methodology series, module II. Addis Ababa: OSSREA

Nachmias, C. F., & Nachmias, D. (1996). *Research Methods*, departmental heads in social sciences. (5thEd.) London: St. Martin's Press.

Nafukho, F. M., & Hinton, B. E. (2003). Determining the relationship between drivers' level of education, training, working conditions, and job performance in Kenya. *Human Resource Development Quarterly*, *14*(3), 265-283.

Nafukho, F. M., & Khayesi, M. (2002). Livelihood, conditions of work, regulation and road safety in the small-scale public transport sector: a case of the Matatu mode of transport in Kenya. In *Urban mobility for all. Proceedings of the Tenth International CODATU Conference, Lome, Togo* (12-15).

Ndung'u, P. K., Kibua, T. N., & Masinde, M. (2004). *The role of the matatu in Kenya: economic costs, benefits, and policy concerns*. Institute of Policy Analysis and Research.

OECD (2018). Regulatory Policy and Governance: Supporting Economic Growth and Serving the Public Interest, OECD (2021). ECD Reviews of Regulatory Reform: Risk and Regulatory Policy – Improving the Governance of Risk

Oira, A., & Makori, M. (2015). Challenges affecting investment in public transport (matatu) industry in Nairobi-Kenya. *The Strategic Journal of Management, Vol. 2*(64), 521-558

Omolo, J. (2013). Employment challenges in Kenya, *African Journal of Economic Review, Vol. 1*(1),18-32.

Omolo, O. J. (2010). Ripple effects of minimum wages and the response of labour markets in Kenya. *Unpublished PhD Thesis, Nairobi: Kenyatta University*.

Ongaki, N. M., & Otundo, E. M. (2015). The role of strategic planning on enhancing investment in public transport Saccos in Kenya (Vol. 3). EduPedia Publications (P) Ltd.

Piva da Silva, M. (2017). *Livelihoods, capabilities and insurgent citizenship in and around a rainforest metropolis: from violent urbanism to a new rurality?* (Doctoral dissertation, Lancaster University).

Rizzo, M. (2017). *Taken for a ride: grounding neoliberalism, precarious labour, and public transport in an African Metropolis*. Oxford University Press.

Salon, D., & Gulyani, S. (2019). Commuting in urban Kenya: unpacking travel demand in large and small Kenyan cities. *Sustainability*, *11*(14), 3823.

Sarkin, J. (2019). Policies in Africa: An evaluation from a human behaviour perspective, *International Human Rights Journal*, *3*, 29-57.

SeMarzo, D. M., Michaele, F., & Matk, R. (2015). SelfRegulation and Government Oversight. *The Review of Economic Studies, 92* (7), 187–206.

Smith, J. P. (2017). Regulation, Safety climate on vessel accidents in deep seas context. *Accident Analysis & Prevention*, *40*(2), 594-601.

Sohail, M., Maunder, D.A.C. & Cavill, S. (2006). Effective regulation for sustainable public transport in developing countries. *Transport Policy*, *13*(3),177-190.

Thomas, R. D. (2017). *Understanding public policy*, 15th Edition. Florida State University

Von Bertalanffy, L. (1968). *General system theory*. *New York*, *41973*(1968), 40.

Wajone, H. (2017). From the positive to the regulatory state. *Journal of Public Policy 17*, 139–67.

Wolf, A. Killa, F., Wilson, F., & Fregah, H. (2007). Human error and Marine accident investigation. *Journal of the Ergonomics Society of Korea, 30*(1), 137-150.

Yalmanov, N. (2020). Public policy and policy-making. conference paper. KnE social sciences

Zikmund, W., Babin, B., Carr, J., & Griffin, M. (2010). *Business Research Methods*, 9th Ed, South-Western Cengage Learning, Mason, OH

APPENDIX I: SURVEY QUESTIONNAIRE

SECTION ONE: MATATU SECTOR REGULATION SURVEY

1. RESPONDENTS NAME (OPTIONAL)….....

2. DATE.....

3. OPERATION TIME: From..... To.……

4. ROUTE/ZONE. .....

5. CBD TERMINAL.....

6. Record the following details concerning each of the matatus at each SACCO

NUMBER OF VEHICLES.	BODY TYPE	OFFICIAL CARRYING CAPACITY	NO. OF PERSONS EMPLOYED IN THE VEHICLE

7. Total number of vehicles per route

(a) 14 Seator Category……

(b) Other Seator Category…….....

SECTION FOR MATATU CREW AND SACCO MANAGEMENT

1. The SACCO has clear rules that guide actions of matatu crew and employees……

   Strongly agree (5) Agree (4) Neutral (3) Disagree (2) Strongly disagree (1)

2. Actions of other support and stage workers contracted are monitored by Sacco management

   Strongly agree (5) Agree (4) Neutral (3) Disagree (2) Strongly disagree (1)

3. Disciplinary actions against operators who defy the rules are taken

   Strongly agree (5) Agree (4) Neutral (3) Disagree (2) Strongly disagree (1)

4. There are proper complain channels that commuters can use to launch complaints

   Strongly agree (5) Agree (4) Neutral (3) Disagree (2) Strongly disagree (1)

5. The conditions of matatu crew employment contract contributes to misconduct while at work

Strongly agree (5) Agree (4) Neutral (3) Disagree (2) Strongly disagree (1)

6. What is the estimated number of complaints raised by stakeholders in the last five years

2016 ……

2017…….

2018…….

2019…….

2020…….

7. Matatus are fairly allocated routes of operating

Strongly agree (5) Agree (4) Neutral (3) Disagree (2) Strongly disagree (1)

8. Matatu carries the licensed passengers' capacity

Strongly agree (5) Agree (4) Neutral (3) Disagree (2) Strongly disagree (1)

9. Matatu that do not comply with the rules are warned or deregistered

Strongly agree (5) Agree (4) Neutral (3) Disagree (2) Strongly disagree (1)

10. Vehicles in poor working condition are deregistered or phased out

Strongly agree (5) Agree (4) Neutral (3) Disagree (2) Strongly disagree (1)

11. Travel delays occur when the infrastructure capacity limit is reached or exceeded

Very great extent (5) Great extent (4) Some extent (3) Very small extent (2)
No extent (1)

12. The matatu operators prioritize protection of life of commuters

Strongly agree (5) Agree (4) Neutral (3) Disagree (2) Strongly disagree (1)

13. Matatu crew are always in uniform during working hours

Strongly agree (5) Agree (4) Neutral (3) Disagree (2) Strongly disagree (1)

14. All matatus operating in the city are registered to a Sacco

Strongly agree (5) Agree (4) Neutral (3) Disagree (2) Strongly disagree (1)

15. Insurance of Matatus is a major concern of traffic offense

Strongly agree (5) Agree (4) Neutral (3) Disagree (2) Strongly disagree (1)

16. Record the following details for each vehicle in the Sacco membership

Vehicle Reg. No.	Body Type	Route/Zone	Fares Ksh.	Approx. Passenger Capacity	No .of Operators	Arrival Time.

SECTION FOR COUNTY ASKARIS

1. There is a credible criteria for allocating matatus in a particular route?

   Strongly agree (5) Agree (4) Neutral (3) Disagree (2) Strongly disagree (1)

2. There are clear designated drop and pick terminals for matatus

   Strongly agree (5) Agree (4) Neutral (3) Disagree (2) Strongly disagree (1)

3. A matatu that is not a Sacco member can operate within the Nairobi city

   Strongly agree (5) Agree (4) Neutral (3) Disagree (2) Strongly disagree (1)

4. Matatu activities are controlled by cartel operators within the city

   Very great extent (5) Great extent (4) Some extent (3) Very small extent (2) No extent (1)

5. All matatus operating in the city are registered to a Sacco

   Very great extent (5) Great extent (4) Some extent (3) Very small extent (2)
   No extent (1)

6. Matatu are the contributor of slow traffic

   Very great extent (5) Great extent (4) Some extent (3) Very small extent (2)
   No extent (1)

7. Crack downs on motor vehicles are effected regularly

   Strongly agree (5) Agree (4) Neutral (3) Disagree (2) Strongly disagree (1)

8. Condition of the vehicles operating in the city are monitored

   Strongly agree (5) Agree (4) Neutral (3) Disagree (2) Strongly disagree (1)

9. Travel delays occur when the infrastructure capacity limit is reached or exceeded

   Very great extent (5) Great extent (4) Some extent (3) Very small extent (2) No extent (1)

10. There has been regular inspection to track road unworthy matatus

Very great extent (5) Great extent (4) Some extent (3) Very small extent (2)

No extent (1)

SECTION FOR COMMUTERS

1. Describe the challenges encountered while travelling (by matatu) from one point to the other within the city and its environs…….
2. What is the approximate travel time spent in a day……
3. What is the ease of travel mode from your area of residence

   Very easily accessible (5) easy to access (4) Sometimes easy (3) Hard to access (2) Very hard to access (1)
4. The cost of commuting as a limitation to move around the city

   Strongly agree (5) Agree (4) Neutral (3) Disagree (2) Strongly disagree (1)
5. Describe how travel cost and time affected your business or routine activities

   Very great extent (5) Great extent (4) Some extent (3) Very Small extent (2)

   No extent ( )
6. Access to basic services has been enhanced through transport services

   Strongly agree (5) Agree (4) Neutral (3) Disagree (2) Strongly disagree (1)
7. Commuters do not worry about personal safety while aboard matatu
8. Strongly agree (5) Agree (4) Neutral (3) Disagree (2) Strongly disagree (1)
9. Matatu have contributed to peaceful environment within the Nairobi city

   Strongly agree (5) Agree (4) Neutral (3) Disagree (2) Strongly disagree (1)
10. The matatu operators prioritize protection of life of commuters

    Strongly agree (5) Agree (4) Neutral (3) Disagree (2) Strongly disagree (1)
11. Commuters are exposed to life threatening activities by conduct of matatu crew

    Very great extent (5) Great extent (4) Some extent (3) Very Small extent (2)

    No extent (1)
12. Traffic congestion is a major traffic concern

    Strongly agree (5) Agree (4) Neutral (3) Disagree (2) Strongly disagree (1)
13. Matatu carries the licensed passengers capacity
14. Strongly agree (5) Agree (4) Neutral (3) Disagree (2) Strongly disagree (1)
15. Commuters are handled well at the residential terminal

Strongly agree (5) Agree (4) Neutral (3) Disagree (2) Strongly disagree (1)

16. How different do operators handle commuters during peak and off-peak hours

……

APPENDIX II: TIME FRAME

Activity	**Nov 2020**	**Jan-April 2021**	**May 2021**	**June-July 2021**	**April - July 2022**	**August-Sept**
Concept development						
Proposal development						
Defence of the proposal						
Data collection						
Data analysis and report						
Project submission						
Project revision						
Project Defence						

APPENDIX III: SAMPLE SIZE

Table for Determining Minimum Returned Sample Size for a Given Population Size for Continuous and Categorical Data

Sample size						
Size of Population	Continuous data (margin of error=.03)			Categorical data (margin of error=.05		
	alpha=0.10 t=1.65	alpha=0.05 t=1.96	alpha=0.01 t=2.58	p=0.50 t=1.65	p=0.50 t=1.96	p=0.50 t=2.58
100	46	55	68	74	80	87
200	59	75	102	116	132	154
300	65	85	123	143	169	207
400	**69**	**92**	**137**	**162**	**196**	**250**
500	72	96	147	176	218	286
600	73	100	155	187	235	316
700	75	102	161	196	249	341
800	76	104	166	203	260	363
900	76	105	170	209	270	382
1,000	77	106	173	213	278	399
1,500	79	110	183	230	306	461
2,000	83	112	189	239	323	499
4,000	83	119	198	254	351	570
6,000	83	119	209	259	362	598
8,000	83	119	209	262	367	613
10,000	83	119	209	264	370	623

Adopted from Organizational research: Determining appropriate sample size in survey research (Barlett, Kotrlik & Higgins (2014).

APENDIX IV: RESPONSE RATE

Respondent	Frequency	Percentage
Questionnaires issued	196	100
Questionnaires returned	139	70.9
Unreturned questionnaires	57	29.1
Usable questionnaires	**125**	**63.8**

Source*:* Field data, 2022

APPENDIX V: FEATURES OF THE MATATU SECTOR

	n(f) frequency	(%)Percentage
Terminal		
CBD	79	63.2
Others	46	36.8
Total	**125**	**100**
Operation Start Time		
Before 4.00am	3	2.4
Between 4.00am – 5.00 am	24	19.2
Between 5.00am – 6.00am	76	60.8
Between 6.00am-7.00am	16	12.8
After 7.00am	6	4.8
Total	**125**	**100**
Distribution of Respondents by Carrying capacity		
14 seator	57	45.6
Other seator categories	68	54.4
Total	**125**	**100**

APPENDIX V: RESEARCH PERMIT