THE EFFECT OF EVALUATION OF TRANSPORTATION SECTOR ON VEHICLE   PARKING ALONG THE MOMBASA-NAIROBI HIGHWAY A CASE STUDY OF THE MARIAKANI TOWN COUNCIL KILIFI COUNTY KENYA

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A RESEARCH PROJECT SUBMITTED TO THE COLLEGE OF APPLIED ECONOMICS AND MANAGEMENT SCIENCES FACULTY OF BUSINESS AND MANAGEMENT FOR THE AWARD DEGREE OF BACHELOR OF SUPPLY AND PROCUREMENT MANAGEMENT

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DECLARATION

I Katana Jordan Mwanga, Reg.No BSP/43972/101/DF do declare that the research report is a result of my own to the best of my knowledge. It's original and has never been submitted to any university or institution for academic award. At the same time I would like to point out that all materials extracted from other sources which are not my own have been legally acknowledged following the right procedure or channel.

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APPROVAL

This research project has been submitted for examination with my approval as the university supervisor.

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ACKNOWLEDGEMENTS

DEDICATION

I wish to dedicate this social study paper to my beloved Dad James and Mum Mercy with all my love and appreciation for their support. I thank you both for your encouragement, inspiration, prayers and for being supportive you have been to see me through my studies.

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ABSTRACT

This study was about the evaluation of the transportation sector on vehicle parking along Mombasa-Nairobi highway, A case study of the Mariakani Town Council (TCM) in Kilifi County.

The researcher emphasizes on the specific measures to address the challenges faced by new development of influx of trucks parking anyhow causing jams and destroying pavements along the highway within the council area of jurisdiction. Based on studying supply and procurement management as a course.

Researcher took into account possible causes of truck influx a long the highway within TCM jurisdiction, the researcher found that the major factor that led to the destruction of pavements and causing Jam was beyond regular explanation.

The researcher used stratified random sampling as a method of selecting a sample since all the elements of the target population are given an equal chance of being selected in a given population. The researcher interpreted the findings using tables and percentages. The researcher found that the drivers evaded parking charges; police and council officials offered solicit brides. The major area of concern was the general ignorance of road usage and parking at pavements.

CHAPTER ONE
INTRODUCTUION

The Town council of Mariakani was curved out of Kilifi County Council in 1993 .It is situated in the south eastern part of Kenya in Kaloleni district of Coast Province. The Council lies between 3 16' south and about 4 south, and 39 05' east and 40 east. It borders County council of Kwale to the south and county council of Taita to the north.

The Town council of Mariakani covers an area of 331 sq. kilometers with its headquarters located about 36km North west of Mombasa the provincial headquarters of coast province via Mombasa Nairobi highway factor that encourages flow of goods and people between Mariakani and major urban centers of the district. Economic interdependence arising from this interaction supports and has helped to transform trading in the District especially in the North western part. Major urban centers within the town are linked to other important towns within the region by all-weather roads. The estimated population within the area under the council is 93,407 people based on 1999 housing census at an annual growth rate of 3.0 per cent. This is projected to rise to 294,822 and 313,080 by 2010 and 2014 respectively.

The council is estimated under the Local government Act, Cap 265 and is charged with responsibility of social-economic development and provision of a framework for local service delivery and governance. The council has five wards each with an elected councilor, two nominated councilors and one public officer. The council structure and programs are designed to support the provision of physical and social infrastructure development, social services, environment management, and sanitation among others

1.1 Background of the study

Globalization of transport sector and urbanization of the country with fast growing transportation industry has led to the reallocation of long truck vehicles from Mombasa city to other areas outside the city. These issues have led to the challenges of these firms to shift to new sites (opening of yards) along Mombasa – Nairobi highway within Mariakani jurisdictions. The same road is serving East, Central and Southern of Africa and affecting the transport sector. The estimate of mobility and safety of vehicle growth is unimaginable and threatening now as well as we have two lanes and the snail speed with which is while police manning all the intersection in order to avoid congestions and accidents.

1.2. Statement of the problem.

Town Council of Mariakani has been challenged by this new development of influx of trucks parking anyhow causing jam and destroying pavements along the highway within the Council area of jurisdiction while waiting to be weighed at the Mariakani weighbridge. Also spilling all sorts of materials (oil) either purposely or by accidents and other chemicals especially used for manufacture of soap thus causing water and air pollution.

1.3 Objectives of the study.

i. To evaluate the nature of transportation and vehicle parking arrangements within the Town Council of Mariakani.

ii. To establish the causes of vehicle parking in the Town Council of Mariakani.

iii. To examine the adverse effects on transportation caused by the vehicle parking challenges.

iv. To propose measures that can be put in place to improve vehicle parking in the Town Council of Mariakani.

1.4 Specific objectives

The research takes a period of six months to completion. The purpose is to recommend measures which the council can institute to address the challenge of vehicle parking and to ease the flow of vehicle traffic to be weighed at the weighbridge. Also to highlight the challenges the council is facing while making arrangement for a proper parking for vehicles.

1.5 Research questions

i. What is the nature of transportation and vehicle parking within Town Council of Mariakani?

ii. What are the causes of vehicle parking in the Town Council of Mariakani?

iii. What are the effects of vehicle parking on transportation within the Town Council of Mariakani?

iv. What measures can be put in place to improve vehicle parking in the Town Council of Mariakani?

1.6 Significance of the study.

To the researcher this study will create a keen interest in the research, sharpen him skills and also help him to understand the challenges facing Town Council of Mariakani in the transport docket.

To the Kampala International University the study will serve as a reference material to other students in the same field in future.

To Town Council of Mariakani the study will help to diagnose the cause of the challenge it is facing in the transport docket and also recommend ways of improving efficiency and effective service delivery by Town Council of Mariakani.

To the Government the study will help to further the agenda of the public sector reform program by providing information on the state of affairs in Local authority public sector in transportation.

1.7 Limitation of the study

a) **Inadequate information**

The Town Council of Mariakani lacks comprehensive and established literature for reviewing.

b) **Incapacity of some respondents**

Lack of interest and knowledge in research being a major problem, certain respondents might not have understood the question thus limits the research.

c) **Language barriers**

Not all stakeholders have a good mastery of English language to be able to comprehend the accurately filled questionnaires.

d) **Lack of motivation and cooperation**

Due to lack of incentive and a busy schedule of certain respondents these respondents might not have the research questions much thought and therefore might have given inaccurate feedback.

e) **Logistics**

The personnel hired will need to undergo some training in order to administer the questionnaire to be filled appropriately.

1.8 Scope of the study

In the research study, the researcher shall get focused on the following;

Geographically the research shall be conducted within Town Council of Mariakani. area of jurisdiction. The respondents will be drawn from Mazeras to Maji ya Chumvi. The total population stands at 1000 and a sample rating 30% will be selected randomly.

Time scope:

The research shall be conducted for a period of six months.

Time line:

May	2011	Chapter 1
June	2011	Chapter 2
July	2011	Chapter 3
July-August 2011		Collection of data
August 2011		Finalize research proposal
August 2011		Analyzing of data
September 2011		Presentation of questionnaire and findings
October 2011		Present
November 2011		Defending

1.9 Input – process – output

Process to include increase of staff, proper record keeping, and provision of equipment, training of staff and improving work conditions and therefore to show a number of strategic tactics, measurements and action plans to be taken by the council to effectively force the challenges and to address them in order to achieve successful output.

Output to include increase in revenue, achieving of goals, better coordination, accountability, integrity and efficiency and shall come about after implementing properly the process required as prescribed, the impact to be a model that will be used by other government agencies effectively and efficiently in the common goal of achieving vision 2030.

1.10conceptional frame work

Independent variable

Represent major cause of the challenges that might be faced by this study

Intermediary variable

The process shows a number of strategic tactics, measurements and action plans taken by the Council to effectively force the challenges and to address them in order to achieve successful output.

Figure 1: showing the conception frame work.

Independent variable   **intermediary variable**   **dependent variable**

Independent variable	intermediary variable	dependent variable
Lack of staff	Increase of staff	Increase in revenue
Untrained staff	Proper record keeping	Achieve the goals
Lack of equipments	Provision of equipment	Better coordination
Poor supervision	Training of staff	Accountability
	Planning	Congestion of vehicles
	By-laws	Free flow of motor vehicles
Lack of motivation	Improve working conditions	Integrity and efficiency

Dependent variable

After implementing properly the process required as required, the impact might be a model to be used by other agents of government for efficiency and effectiveness in achieving vision 2030.

CHAPTER TWO
LITERATURE REVIEW

2.1. Introduction
Virtually this research will offer insights on the transportation sector and its challenges economically and demographically. Similarly, the demand for new highways and other transportation options within the industry.

2.2. Theoretical/empirical review (Past studies)
According to Sterman (2010) "Examine the relationship between reducing traffic congestion and mass transit", traditionally, the solution to traffic congestion has been of supply and demand, and new road are built to accommodate the increase in vehicle traffic.

However, Salvucci (2010)" observed that a suitable transportation program is built upon the pyramid of three 'E's: Equity, Environmental benefit and Economics. Maximizing on just one of these objective imbalances the others, and leads to unintended and undesired results".

According to Weisbrod (2007) and Alstadt (2007): "Value of different spartial perspective-this recognition that the nature of transport problems and their interaction with economy can appear different when viewed from alternative perspective –the macro scale of ration, the mesco scale of metropolitan areas or the macro scale of local communities".

The transportation sector should have come up with studies to counter the supply and demand for modern transport systems in delivery of services.

2.2.1 The cause of vehicle parking within Town Council of Mariakani.
According to Robert et al 2000, they out line the following as parking best practices.
a) Parking best practices; customers
Formal process exist which facilitate the involvement of staff early in the customer project cycle such that an effective parking procedure is concluded.

Regular- scheduled – annual customer satisfaction survey used in the department to identify deficiencies for which corrective action is taken. Those parking vehicles must be made aware of survey and the corrective action planned thereof.

b) Vehicle parking best practices: organization.

Documented objective towards achievement of identified externally- developed best practices and documented annual business plan developed with department staff aligned with vision and mission of the vehicle parking department, relevant and time bound.

Strategic plan is supported by executive management and support is evidenced by the allocation of resources such as budget and training opportunities.

Urban land institute and National parking Association 2000 came up with the table below to aid organizations on parking best practices.

General Standards for Minimum parking requirements.

Land use	Peak space factor Unit
Shopping centre	600,000 square feet4.5 spaces per 1,000 square feet gross leasable area
Shopping centre	600,000 square feet 4.0 – 4.5 space per 1,000 square feet gross leasable area
Office	0.50 – 3.00 space per 1,000 square feet gross leasable area or 0.10 - 0.75 space per employee
Industry	0.67 – 3.50 spaces 1,000 square feet gross leasable area or 0.36 – 1.60 spaces per employee
Residential	0.20 – 2.00 spaces per unit

2.2.2 Nature of transportation and vehicle parking within Town Council of Mariakani

According to OECD, International Transport Forum, "traffic Operations are concerned with the day – to –day operations that support the provision of road services to road network users. The concept of traffic operations as underpinning road user services covers the major types of services provided and outlines the role of intelligent transport systems (ITS) in delivering these services. Guidance on the configuration and operation of systems, both ITS and manual, supporting traffic operations including network monitoring systems, incident management, traffic signal systems, congestion management, freeway/ motorway management systems, traveler information systems and the like. In so doing the broader issues and aspects of managing networks of roads to provide effective traffic management for all road users; providing guidance

on the design and use particular traffic control and communication devices which in some cases form components of the systems guiding transportation."

According to Barley 1994, causes of poor performance in the Department that oversee Transportation in an organization can be categorized into broad categories:

(i)Employee characteristics.

This refers to performance based on skill levels, willingness, motivation, ability, training and other factors that belong at least in part to the employees.

(ii) Environment.

This refers to the system and the environment in which work is done, managerial behavior, allocation of resources, effects of colleagues and other variables which are by and large beyond the control of an individual employee.

These two broad categories of factors need to be examined critically because of their interrelationship. Poor employee motivation for instance may appear on the surface to relate to the employee alone but is indeed heavily influenced by the work environment.

2.2.3 Relationship between vehicles parking and transportation in Town Council of Mariakani.

According to Sterman (2010) Examine the relationship between reducing traffic congestion and mass transit. Traditionally, the solution to traffic congestion has been of supply and demand, and new roads are built to accommodate the increase in vehicle traffic.

However, Salvucci (2010)" observe that a suitable transportation program is build upon the pyramid of three 'E" Equity, environment benefit, and economics, maximizing on just one of these objective imbalances the others, and leads to unintended and undesired results".

According to Weisbrod (2007) and Alstadt (2007)

2.2.4 The effects of vehicles parking within Town Council of Mariakani.

According to Paul Barter (2010)"vehicles require parking at each destination". These facilities are an essential component of the roadway system and a major cost to governments, businesses and house holds. Parking costs include parking facility land, construction and operating costs, plus indirect costs such as increased storm water management costs."

2.3 Review of analytical / critical literature

The weigh bridge for weighing axle loads is within the Town Council of Mariakani. The vehicle passing through our roads usually make a stopover at Mariakani to eat, sleep or to wait for the queue to reduce. Also there is the issue of overloading of vehicle beyond capacity making the transporters to lobby with the officers in charge for them to continue with their journey. Thus parking of vehicle on road reserve and pavement and even outside houses not minding the dangers they impose on the cargo they carry.

In order for a country to sustain its transportation sector to be at mobility where people desire to travel and own vehicles, then strategic logistic have to be in place. There is need to plan the effect of transportation on the economy. People gaining wealth means that also their needs increase. There is need to meet increasing travel demand without causing addition traffic congestion.

2.4 Summary and gaps to be filled by the study.

The researcher is to accommodate economic and population growth of the entire region.

i.   To meet increasing demand without causing traffic congestion.

ii. To establish non – performance in repairing of the infrastructure.

iii. To establish the reason for delays and slow jams within the system

iv. Promote sustainable land use planning in terms of energy consumption and emission.

CHAPTER THREE
RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter contains the research design, target population, samples design, data collection, data analysis procedure and the ethical issues.

3.2 Research design

This study was a descriptive research as it aims at examining the challenges facing vehicle parking in the Town Council of Mariakani. The study could be investigated best through a survey. A survey design would help in collecting diverse views while saving on costs and time. It would also ensure rapid data collection from the sample chosen purposively.

The assumption here is that this design will enable the collection of data that will represent the real situation. It will also reveal first hand data and reveal issues critical in helping the Council make efficient decision.

The researcher used stratified random sampling method. This is a method of selecting a sample in which all the elements of the target population are given an equal chance of being selected in a given population.

The research was about a population size of 1000 drivers according to the records of the Kenya Rural Roads Authority (KRRA).

3.3. Target population

The target population of the study was drivers along the Mombasa – Nairobi highway but only concentrating on the area within the Council's jurisdiction. The sample size could have been increased but limited time and financial resources narrowed the possibilities of larger sample size.

The researcher considered a population of 1000 drivers and traffic police and takes a finite sample of 250 drivers and 50 traffic police.

The traffic police were selected using convenience sampling method. This was due to the fact that most of the respondents have tight schedules therefore flexibility is needed to get responses from them.

Table 1: Population and sample size

Description	Population size	Sample size
Truck drivers	900	250
Traffic police	100	50
	1000	300

3.4 Sampling Techniques, Design Size and Procedures

The researcher used a probability stratified method, specifically using simple random technique. The population size was 300.

3.5 Data collection instrument/procedure.

The researcher used questionnaire as the collection instrument. Specifically through questionnaires that will be administered through hand delivery.

3.6 Procedure of Data analysis

The researcher organized her data in tables in the form of research questions and objectives. After analysis, the work was presented in a report. The data collected was analyzed qualitatively and quantitatively. Each research question was carefully analyzed with reference to the research topic. The questionnaires and the respondents were accorded accurately to enable accurate analysis of information to come up with comprehensive analysis.

CHAPTER FOUR
DATA ANALYSIS, PRESENTATION AND INTERPRESENTATION

4.1 Introduction

This chapter provides the analysis and presentation of information derived from the data collected through the study research process. The raw data from the field has been synthesized, organized and analyzed both qualitatively and quantitatively in order to give evidence relevant to the research objectives and questions to the research objectives and questions. The processed information is presented by use of tables, pie charts and bar graphs.

4.2. Objective one- To evaluate the nature of transportation and vehicle parking arrangements within the Town Council of Mariakani.

A total of 300 questionnaires comprising 26 questions each were administered to respondents randomly picked from the field. The respondents' rate was 90% as all the 300 questionnaires were received back for analysis.

Analysis

Achieving a response rate of 100% showed an exceptional commitment from the participants in a need to see improved vehicle parking along the Mombasa – Nairobi highway.

Table 2. Nature of Transport.

NATURE OF TRANSPORTATION	NO. OF RESPONSES	% RESPONSE
Heavy trucks	100	30%
Buses	50	15%
Light transport	25	8%
Saloon cars	65	20%
Matatus	60	20%
TOTAL	300	80%

Findings

The researcher compiled her findings in a table reflecting a 80% rate of response from all the respondents that participated in this research. Table 4.2.2 indicates the findings at a continuum of 1 to 5 point scale. Most of the vehicles are not ready to pay council fees as they stop for a short while.

Figure 2: Bar chart showing rate of response.

4.3 Objective two- causes of vehicle parking within Town Council of Mariakani

Analysis

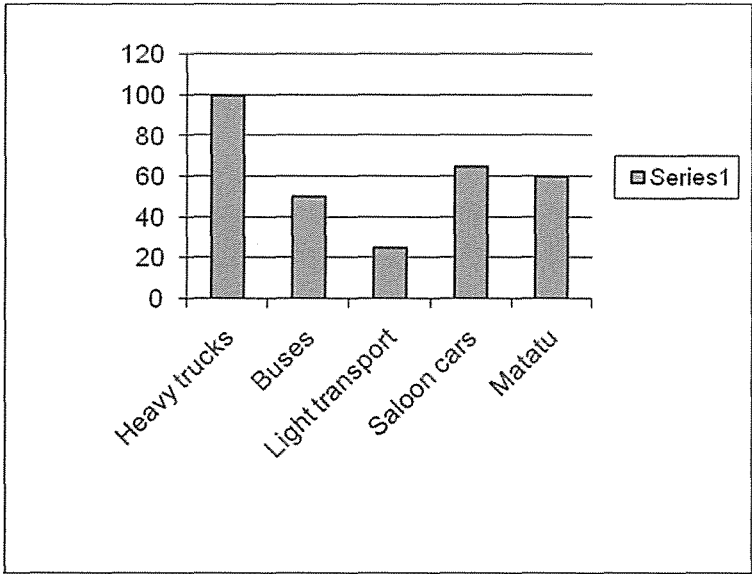Achieving a response rate of 80% showed an exceptional commitment from the participants in a need to see improved Transportation along the Mombasa – Nairobi highway. The response rate of 3.0 falls squarely at the mean for the Lickert scale which is 3.0. it therefore interprets to mean that all the respondents who participated in this exercise equally agree and disagree that vehicle parking is being done properly. This scenario leaves a 80/20 situation.

Findings

The rate of response showed greatly that majority drivers and the traffic police within Mariakani are conscious of what is happening around them. And that as well they were committed to see improvement in vehicle parking. Most of the drivers would like to park for a short time in order to eat food or to sleep before driving on to the weighbridge.

Table 3: The causes of vehicle parking- Response rate

NATURE OF VEHICLE PARKING	NO. OF RESPONSES	% RESPONSE
Parking at lorry park	100	33.3%
Parking on road reserve	25	8.3%
Parking at pavement	75	25%
Not parking at all	75	25%
TOTAL	**300**	**91.7%**

The researcher compiled her findings in a table reflecting a 91.7 % rate of respond from all the respondents that participated in this research.

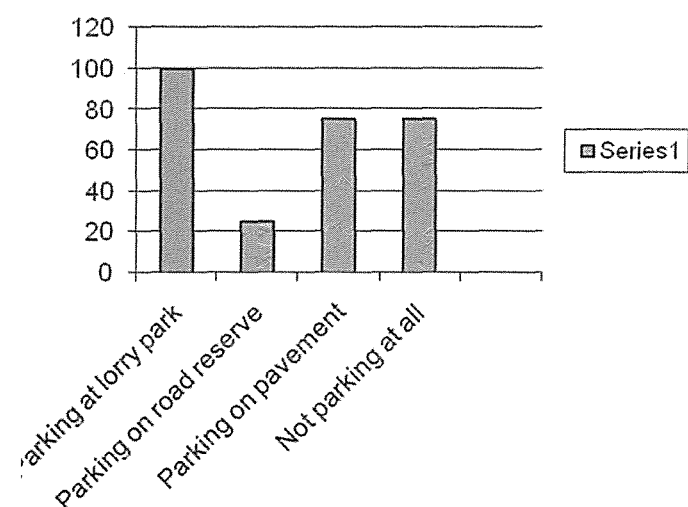**Figure 3: A bar chart representing the rate of response**

Table 4.2.2. Showing responses pertaining transportation along Mombasa – Nairobi highway within the jurisdiction of Town Council of Mariakani..

4.4. Objective three- To examine the adverse effects on transportation caused by the vehicle parking challenges.

Table 4.2.3 showing responses to the effects on transportation caused by vehicle parking challenges along Mombasa – Nairobi highway within the jurisdiction of Town Council of Mariakani.

Questions are in the order as they appear in the questionnaire.

Table 4: Effects on transportation caused by vehicle parking.

RELATIONSHIP BTWN PARKING AND TRANSPORTATION	NO. OF RESPONSES	% RESPONSE
There is need for parking bay	120	40%
Passing without parking	75	25%
Parking outside their homes	25	15%
Parking at the matatu terminal	50	10%
TOTAL	300	90%

Analysis

Achieving a response rate of 90% showed an exceptional commitment from the participants in a need to see improved vehicle parking and transportation along the Mombasa – Nairobi highway.

Findings

The research compiled his findings in a table reflecting a 90% rate of response from all the respondents that participated in this research. Table 4.2.3. Indicates the findings at a continuum of 1 to 5 point scale.

Figure 4: Effects on transportation caused by the vehicle parking
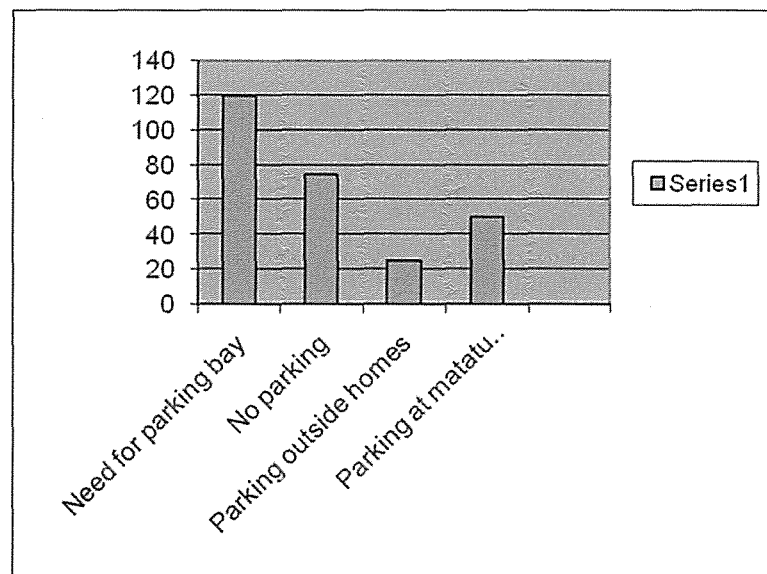
The Lickert weight of 3.7 exceeds 3.0 which is the midpoint of the Lickert scale. This means that the parties participating in this exercise felt that vehicle parking in Mariakani affects the transportation within the jurisdiction of Town Council Mariakani due to such reasons but not limited to:-

i.	Drivers evasion of parking charges
ii.	Failure by traffic police and council officers to enforce the laws and By-Laws
iii.	Police officers and council officers soliciting of bribes
iv.	Council's failure to provide parking bays
v.	General ignorance of road usage or parking at pavements

Effects of vehicle parking on transportation within Town Council Mariakani

The researcher found out that there were several effects of vehicles parking on transport as enlisted hereby:-

i Transportation costs found to be high in terms of remuneration of the staff employed to ensure the parking regulations are adhered to.

ii. Accidents occur as most vehicles are illegally parked along the highway leaving no space for navigation.

iii. Spilling of toxic substance (oil, fuel, chemicals e.t.c.) which cause harm to the residents.

iv. Bribery cases occurring as a result of corrupt officers.

v. Limited revenue collection as those that evade proper parking do not pay parking charges.

vi. Theft cases as those vehicles parked in un-secure areas attract thugs.

Table 5: Effect of vehicle parking

| EFFECT OF VEHICLE PARKING	NO. OF RESPONSES	% RESPONSE
Transportation costs	50	10%
Accidents	85	25%
Spillage of toxic substances	75	25%
Bribery to police and council askaris	90	30%
TOTAL	300	90%

Analysis

Achieving a response rate of 90% showed an exceptional commitment from the participants in a need to see improvement by police and council officers by giving them integrity test. Also drivers to show their driving skills by not causing accidents and spillage of toxic and hazardous materials.

Findings

The researcher compiled her findings in a table reflecting a 90% rate of response from all the respondents that participated in this research. Table 4.2.4.1 indicates the findings at a continuum of 1 to 5 point scale

Figure 5: Effect of vehicle parking
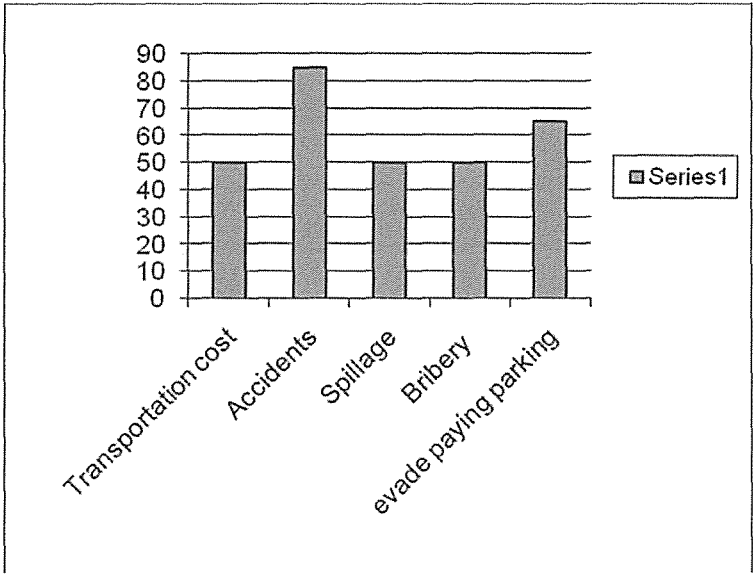
This means that the parties participating in this exercise felt that the cost of transportation was average, accidents were on the rise, spillage and bribery were also on average and evading paying council dues has also caused damages to the side roads.

4.5 Objective four- Measures to improve vehicle parking in the Town Council of Mariakani

This was achieved in the recommendations part of the study.

CHAPTER FIVE
5.0 SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATION

5.1 Introduction

This chapter contains the summery of findings, answers to the research questions/ hypothesis,

implication to the study, / discussions, recommendations and room for further study.

5.2 Summary of major findings

The researcher categorizes the findings as per the objective of the research work. The percentage

response of 100% was good.

5.2.1. What is the nature of transportation and vehicle parking within Town Council of Mariakani?

The respondents approached felt that:-

i.	There are many vehicles than the highway can accommodate
ii.	The activities along the highway impact on transportation
iii.	Spilling of waste isn't a reason for accidents
iv.	Lot of accidents due to spilling that disrupts traffic.
v.	Heavy vehicles spoil the highway
vi.	Alcoholism and substances abuse disrupt traffic
vii.	CCTV cameras are a necessity to motor traffic
viii.	Traffic control devices are being violated
ix.	There is a balance on whether the traffic police is participative
x.	New drivers from elsewhere do not follow the traffic rules.

5.2.2 What are the causes facing vehicle parking within town council of Mariakani ?

The respondents approached felt that:-

i.	Drivers evade parking in parking bay to evade parking charges.
ii.	The traffic police report on duty but chase after petty crimes
iii.	The traffic police and council officers solicit bribes
iv.	Parking along the highway disrupts traffic
v.	The council is not doing enough through enforcement
vi.	There is a general ignorance on parking regulations.
vii.	Vehicle spill lots of waste
viii.	No efforts are made to clear the mess
ix.	The parking space is not enough
x.	Most drivers do not want nor wish to park along the way.

5.2.3 What are the effects of vehicle parking on transportation within town council of Mariakani?

(i). transportation costs shoot

(ii). Accidents

(iii). Health hazards due to spilt toxic substances.

(iv). Bribery at rise

(v). limited revenue collections.

(vi). Theft cases at rise.

5.3 Conclusions

In the course of carrying this research put into contrast her findings and those of other scholars.

According to Starman (2010), he urges that to help curb traffic congestion you need to build new

roads. However, there was found to be constraints in our economy to do that and therefore the researcher found it to be unnecessarily an option. The researcher however, feels that efficient parking that is not parking along the highway would reduce congestion and facilitate a smooth traffic flow.

Similarly, the researcher agrees to a greater extent Salvucci (2010) who "…observes that a sustainable transportation program is build up on the pyramid of three; 'E" Equity, environment benefit, and economics, maximizing on just one of these objective imbalances the other, and leads to unintended and undesired results"

It was found that vehicles parking go hand in hand with traffic flow, many respondents observed that due to driver's evasion of parking charges they preferred parking along the road leaving it congested, developing slow traffic flow.

The researcher observed that there were a lot of vehicles along the highway than itself could accommodate, this is why Sterman (2010) feels that more roads ought to be constructed. That the activities along the road be reduced especially small businesses such to create an expansion space for vehicles to negotiate, park and thereof providing efficient traffic fowl.

So it is quite apparent that the vehicle parking section affects the transportation sector and therefore a relationship as such that cause delays in the highway needs to be addressed by the Town Council of Mariakani management. Mistakes in the parking section produce a multiplier effect which has far reaching implications on transportation. This role therefore requires more top management support since it is a critical function which has a much or more impact on transportation.

5.4 Recommendations

The researcher recommends that CCTV cameras be installed to monitor transport, the traffic control devices (sign, pavement markings, signals) be put in place and followed to the latter, the traffic police as well as the council's staff be observant of time and similarly report to work all the time and be officers of integrity. The council askaris to be trained before undertaking such works in the future. The council needs to come up with a parking bay that will accommodate many vehicles as they wait to be weighted. The Council to put into place By-Laws which will be enforced to the latter.

5.5 Suggestions for further study

Further research is necessary and this can be made possible by discerning or approaches used by different towns for various elements of parking for a period of time. Database movement systems are required in order to have basic information on all kinds of vehicles passing this route. Also integration and collaborations between Ministries of public works, the Council and the traffic police through management, policies and enforcement. For effective management these agencies must have basic information in accessible format that can be updated and shared.

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Benefit-cost analysis

APPENDIX 1
INTRODUCTION LETTER

Dear respondent, thank you for taking your time to respond to questions contained in this questionnaire. These questions are intended to help to find explanation on vehicle parking and transportation in Town Council Mariakani. Your answers shall be treated with utmost confidentially.

IDENTIFICATION.

In this section, please identify yourself by ticking appropriate box and filling in the space provided.

Age in yours 18 – 22 ☐   23-27 ☐   28-32 ☐

APPENDIX 11

QUESTIONNAIRE

Answer the questions below by indicating whether you:

	true	false	none
1. Vehicles within the jurisdiction of Mariakani Town Council are properly parked.			
2. Drivers obey parking regulations in the road act while parking their vehicles.			
3. Traffic officers are always available to ensure parking regulations are adhered to.			
4. Vehicles are only parked in areas set aside for that particular purpose.			
5. Council officers do receive bribes to let drivers violate the by-laws set for parking by the council.			
6. Old transit vehicles parked within Town Council of Mariakani do spill wastes like oil, steel, old rubber and other toxic wastes.			
7. When such wastes in 6 above are spilled no efforts are made whatsoever to clean the mess.			
8. The areas set aside by the council for such purposes are parking of vehicles in not enough.			
9. Such areas as set in 8 above are prone to theft and thuggery discouraging drivers to park in those areas of jurisdiction.			

10. Because of the reasons in 9 above drivers prefer to park along the highway abstracting other road users.

11. There are many vehicles along the highway than it can accommodate.

12. The activities along the Town Council of Mariakan area of jurisdiction impact on the speed at which vehicles move.

13. Spilling of wastes like oil is a reason for accidents along the highway.

14. Due to accidents occurring in 3 above, traffic is disrupted causing delays.

15. Excess of weight by most transit vehicles destroys the developing patholes that interupt traffic flow.

16. Drug influence (alcoholism) is an influence to rude behaviors experienced in some drivers who disrupt transport.

17. It is necessary to install highway CCTV cameras to monitor transport

18. The traffic control devices (signs, pavement markings, signals) are being violated.

19. The traffic police are not doing enough to ensure swift and smooth transport along Town Council of Mariakani area of jurisdiction.

20. New drivers from other countries do not follow our rules to the

|			
latter thus disrupting traffic flow.			
21. Drivers evade parking in jurisdicted areas to evade parking charges; this disrupts transportation.			
22. The traffic police within this area of jurisdiction do not always report to duty which affects transportation.			
23. Such officers in 22 above solicit bribes from drivers to let them violate the law and obstruct other highway users which affect transport.			
24. Parking along the highway is a cause for traffic delays in the highway.			
25. The council is not doing enough to ensure parking of vehicles does not interrupt transprtation.			
26. There is general ignorance on parking regulations which disrupts transportation along Mombasa-Nairobi highway.			

APPENDIX 111
TIME BUDGET

May 2011	Chapter one
June 2011	Chapter two
July 2011	Chapter three
July –August 2011	Collection of data
August 2011	Finalize research proposal
August-September 2011	analyzing of data
September 2011	Presentation of questionnaire and findings
October 2011	Present
November 2011	Defending

APPENDIX IV
MONEY BUGDET

Consultations	3,000.00
Stationery	1,000.00
Photocopying and binding	2,000.00
Internet access	500.00
Transport	5,500.00
Total	12,000.00

Appendix v

The map of Mariakani Town Council
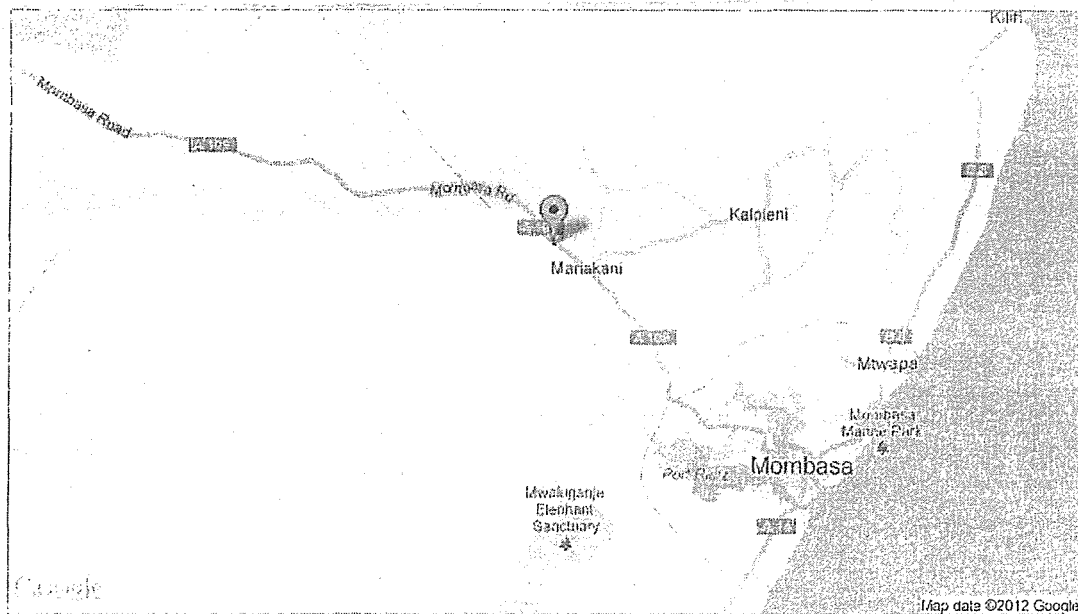
Geographical Information for Mariakani

Place name: Mariakani
Latitude: 3° 51' 36" S
Longitude: 39° 27' 37" E
Feature description: town
Area/state: Coast
Population range of place: is between 10,000 and 20,000
Country: Kenya
Country ISO code: KE

Add a link to the Collins Maps page of Mariakani

We have provided two ways that you can pass a link of our maps to your friends, or embed a link into your own website. These are a straight text link or an image button link. Just copy and paste the text from the options below.

Mariakani location map

```
<a href="http://www.collinsmaps.com/maps/Kenya/Coast/Mariakani
/P1080295.00.aspx" title="World Search location map of
Mariakani">Mariakani location map</a>
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