# Road Infrastructure and Matatu Crew Character on Customer Satisfaction in VUCA Public Road Transport Sector in Kenya; A Case Study of Nairobi County

Prof. Peter Paul Kithae

The Management University of Africa, Nairobi, Kenya

Abstract: Rapid innovation is an important tool to maintain leadership in a volatile environment, VUCA (Volatile, Uncertain, Complex and Ambiguous) world examples have shown how challengers within an organization must be developed and encouraged to create disruptive services and products that can replace existing ones. In road transport sector, customer satisfaction has been recognized as the most powerful competitive weapon that many leading service organizations possess . While this is so many public transport companies have not addressed the factors that affect customer satisfaction in the VUCA public transport sector. The study objectives were to determine how road infrastructure and matatu crew character affect customer satisfaction in the ever changing public road transport sector in Kenya with reference to Nairobi County. The study employed a descriptive research design. A sample size of 148 respondents were selected out of the target population of 344 that included the County Transport Department Staff, the Traffic Officers and the Matatu Owners Association and Matatu Crew that operate at various city stations and dropping and picking points. Data was collected through a semi-structured questionnaire. Descriptive analysis were used to analyze the collected data and were presented through charts, frequency tables and graphs. Conclusions and recommendations were drawn from the findings. The findings of the study showed that road infrastructure and matatu crew character all affected customer satisfaction in road transport sector in Kenva. The study recommended that there is need for improved road connectivity across the city especially in areas that are under serviced and connectivity is poor; and that it is necessary to enhance existing disciplinary procedures for offenders as this is appropriate in achieving high levels of customer satisfaction. Also, there is need to improve personal conduct of the sector players as some Matatu Crew behave in a manner that does not appeal to customers and that where the SACOOs do not have an existing code of conduct for matatu crew, there is need to develop one in order to provide guidelines on the matatu crew conduct. The study recommended further research on effect of training on matatu crew conduct in the Public Transport in Kenya

Key words: VUCA, Road infrastructure, Matatu Crew Behaviour, Road Transport Sector, Customer Satisfaction

# I. INTRODUCTION

Rapid innovation is an important tool to maintain leadership in a volatile environment. VUCA (Volatile,

Uncertain, Complex and Ambiguous) world examples have shown how challengers within an organization must be developed and encouraged to create disruptive services and products that can replace existing ones. Important information is either not easily available or inauthentic. This compels business leaders to make decisions on intuition rather than information, which can lead to failure. Real-life examples of VUCA show that business leaders face several obstacles while making decisions in this uncertain market and world.

Globally transportation is offered and guided by public policy; particularly in major cities. public transport is a unique service taken seriously in numerous countries in the world. Referring to the World Business Council for Sustainable Development (WBCSD), people are switching from cars to public transport (Atalik & Arslan, 2019). It is estimated that public transport globally will double by the year 2025 up from 2009 (Ellaway and Kearns, 2019).

According to Dadkhah (2016), the 1984 Act of the United Kingdom had adequate laws governing the extremes of either side of the public transport sector. Likewise, the French public service encourages defenders of the regulated public sector. The regulated environments however differ from one country to another in respect of the roles they play in regulating the public transport companies and of the passengers (Dadkhah, 2016). Major representative of transportation in France shows all clear similarities among relevant types of governments and private operators in the public road transport. Of late, public road transportation has improved since end of 1960s. This is because there has been deliberate cost-effective measures in the sector in major town of Europe. Additionally, Getachew (2019) highlighted that while the public transport sector have been neglected in Africa, in the recent time the industry has received great consideration from African public authorities, economic analysts and worldwide donors as an important poverty reduction and sustainable human development. The declarations of the African ministers of transport & infrastructure on 6 April 2005 in Addis-Ababa (Ethiopia) and on 17 November 2005 in Bamako (Mali)

provided perfect examples of this endeavor according to Olakunori (2017).

Considering the ongoing development in the continent, most Sub-Saharan African inhabitants will reside from urban areas by 2025. It is therefore crucial that the initiatives be adopted by Sub-Saharan countries to anticipate these major urban mobility challenges across all sectors including public road transportation, otherwise the precarious socio-economic balance of our Sub-Sahara African metropolises will be affected (Jamal and Naser, 2018).

Many transport companies have been established in various countries, but most of them have failed especially in the developing country and especially in the East African region. In a country such as Tanzania, the public road transport is dominated by private sector with many players operating in both the rural and urban areas. However, Kenya is among countries in the region that are on their way to improve their transport infrastructure by connecting all regions and neighboring countries through road and opening landlocked countries such as the ones in central Africa(Kiage, 2019). Even as the public road transport grows , Magwala (2018) emphasized that the overall passengers' satisfaction with public city road transport is still not satisfactory and is affected the overall service quality in sector. Additionally, the frequency, punctuality, cleanliness in the vehicle, proximity, speed, fare, accessibility and safety of trans- port, information and other factors can influence passengers' satisfaction; and which point to the VUCA complexities

# Road Infrastructure

Road Infrastructure referes to land utilized for the transport of goods and people through road and comprises of national, provincial and municipal roads, facilities to park and stop, road reserves, maintenance and maneuvering facilities. The road infrastructure in not only important in facilating easy transportation of goods and services but is also is important for eradicating hunger, alleviating poverty, and enhancing the quality of peoples lives(Karts, 2018). Road transport refers to the transport that provides door-to-door transport that is appropriate in the the delivery of completed goods to clients. Good road infrastructure facilitates trade, moves businesses, connects workers to where they work, creates opportunities for struggling communities and protects the nation from an increasingly unpredictable natural environment. The economy requires depandable road infrastructure to connect supply chains and efficiently transport goods and services within and borders. Road Infrastructure also helps in the connection of households across metropolitan regions to improved quality opportunities for employment, healthcare education(Lang, 2003).

# Matatu Crew Behaviour

Public transport operators in most countries affect the quality of service that they provide to their customers. Public transport crew behavior was crucial on whether the customers boarded their vehicles or not and this also affected the extent to which the customers are satisfied with the services provided by various public transport providers. While many countries has invested in a good public transport system, customer satisfaction in the sector do not only need to be addressed but also measured against international standards in other countries (Asri and Hidayat ,2018). There are times that the police have been forced to cope up with the new wave of crime along the in superhighway where a well-coordinated team of Matatu drivers and touts collude not only harass travelers using their public transport vehicles but have also been reported to have robbed unsuspecting passengers. The team involving matatu drivers and conductors allegedly single out passengers who have valuables and later rob them of these variables (Busienei ,Bor and Osodo ,2019).

# Customer Satsifaction

Affordability of the matatus as a means of transport would lead to 0.642 enhances clients satisfaction in, Kenya. Kimani (2020) also established that an increase in safety of the matatus industry would lead to an increase in customer satisfaction in. Kenva and a unit increase in condition of the matatu would lead to an enhance clients satisfaction in Kenya. The research established that reliability and frequency of the matatus industry are critical factors influencing clients satisfaction in Kenya and needs to be have been enbraced to enable an increase client satisfaction.Kamande (2021) recommended that a growth in number of vehicles in every route more over in areas that are overpopulated. Matatu operators enables prices and fixes travelling schedule to make posible travelers properly plan their travel. Reckless driving, excess passengers and loud music are issues that should be mitigated if not stopped by the police officers. Ndolo(2018) poor customer services have been highlighted that contributed by officers receiving bribes instead of following legal procedure, Matatu staff were reported to be under the influence of drugs which may have negatively impacted on the customer service and lack of courtesy from the crew as alleged my many public transport users on many routes across the country..

#### Statement of the Problem

Public road transport is one of the most used forms of transport for millions of people across the world. While many use public road transport in major cities across the world, there are many factors that influence customer satisfaction in the public transport.Kizigwe (2019) highlighted public transport crew behavior as critical in determining whether the customers boarded their vehicles or not while Al-Sayaad, Samrah (2018) established that customer Rabea and satisfaction has been seen as the most crucial competitive weapon that many leading service firm's possess. As the population continue to grow in major cities and urban town across the country which complicates the scenario as seen in VUCA analysis, public road transport continue to be the most preferred and sort out means of transport especially for the passengers. While there have been a lot of studies focusing

on customers satisfaction across many sectors, little if any has focused on customer satisfaction in the public transport. Additionally, available studies have been carried out in other countries and there are very limited studies that cover factors that affect customer satisfaction in Kenya. Nairobi forms a good case study as it is one of the fastest growing cities in the continents. This study therefore sought to establish the factors affecting customer satisfaction in road transport in Kenya with reference to Nairobi County.

# objectives

The general objective of the study was to determine factors affecting customer satisfaction in public road transport in Kenya with reference to Nairobi County while **Specific Objectives were:** to determine how road infrastructure affects customer satisfaction in road transport sector in Kenya and To evaluate the extent to which matatu crew character affects customer satisfaction in road transport sector in Kenya.

#### Significance the study

The findings of the study will help the Management of Public Transport to identify and manage the transport systems facilities and infrastructure, the government and policy makers to come up with relevant regulations and guidelines on how the players in the sector can operate, and add to existing knowledge on road transport sector for future researchers to base their studies on. The study was conducted in Nairobi City County between June, 2021 and June 2022 covering road infrastructure and matatu crew as factors affecting customer satisfaction in road transport in Kenya with reference to Nairobi County.

# II. THEORETICAL ORIENTATION AND INFORMING LITERATURE REVIEW

The study was pegged on the RATER model and the Negativity Theory .

The RATER model is a method used by organizations to measure customer expectations and experiences which lead to customer satisfaction (Ferguson, 2014). It was presented in 1988 by Valarie Zeithaml, A. Parasuraman and Leonard Berry for service quality. RATER is an acronym for reliability, assurance, tangibility, empathy and responsiveness. This model is a progression from a unique problem identification and resolution method referred to as SERVQUAL which basically refers to service quality (Zeithaml, Parasuraman, & Berry, 2009). The notion leading to the foundation of RATER is that the difference between expected and perceived quality should be evaluated within the scope of the acronym RATER (CEOpedia, 2019). The model expresses the organization's ability to deliver on the promised service accurately (Alton, 2017). In the delivery of a service in VUCA, communication is important, both for the customer and the organization. Within the organization, employees need to be well-informed so that they may represent the interests of the organization competently. Additionally, feedback mechanisms between employees and the management need to be provided for, this way, an organization is able to respond efficiently to the expectations of the target market. Without the organization, channels of communication should be availed by the organization to allow for the community and stakeholders to engage the organization at will (Alvarez, 2014).

The Negativity Theory is theory developed by Carlsmith and Aronson (1963) suggests that any discrepancy of performance from expectations will disrupt the individual, producing what can be referred to as negative energy. Negative theory is anchored in disconfirmation process and posits that when expectations are strongly valued, clients will respond negatively to any disconfirmation. The theory emphizes that affective feelings towards a product or service will be inversely related to the magnitude of the discrepancy. This means that when customers expectations are not met, then they will express their dissatisfaction with either the product or the service. Therefore, dissatisfaction will occur if perceived performance is less than expectations or if perceived performance does not exceed expectations. The public transport service customers will feel their dissatisfaction with the services they are given if they perceived performance of the services they get from public transport is less than their expectations or if perceived public transport performance does not exceed their expectations.

# Empirical Literature Review

Empirical literature review involves the review of different studies carried out before to help in the identification of the knowledge gap to be filled by the study. They are as follows

Road infrastructure and customer satisfaction in the road transport sector

Infrastructural development in roads is crucial for the development of cities. Asri and Hidayat. (2018) pointed out that being historical place and the Zonal administration of East Gojjam Zone gives an opportunity for the city to be visited by people from different woredas of the zone, the region and from different areas of the countries for business, recreational and other purposes. The study also pointed out that the high movement of people in the city requires a fast transportation system to enable a proper infrastructure to make it possible for people to move from one point to another.

Budiono (2019) while evaluating Customer Satisfaction in Public Bus Transport established that another situation that causes traffic congestion is mix road use between motorized and non-motorized vehicle, which is very common in Indonesia and that there is an intense competition for road space between private and public road transport vehicles. The other is that the traffic does not operate in good order. Additionally, while the country has heavily invested in a good infrastructure, lane discipline is low and even nonexistent for public road user.

Iles (2015) evaluated the public transport in developing countries and established that just like the largest and populated cities such as Cape Town and Johannesburg;

developing countries in Africa are investing in road infrastructure to solve the huge road traffic problem faced by these cities. For many developing cities in Africa where road public transports are the means of transport that are used to transport people from one destination to another where, the most commonly used transport still includes buses and mini buses.

In the recent times, Eboli and Mazzulla (2017) observed that countries such as Tanzania have invested in infrastructure in order to improve public road transport and ensure that transport time is minimized as much as possible. Dar es Salaam Rapid Transport (DART) referred to Mwendokasi are taking over, daladala being gradually phased out especially in the city center, where numbers of daladala have already been greatly reduced. However, as much as DART has contributed to high levels of customer satisfaction in terms of time it does not cover most of the areas in the city.

Notably, Kamande (2021) on the effects of highways on the transportation in the Kenya highlighted that although the country has invested heavily in the road infrastructure, there are still areas that have not been connected to the rapid road transport. For instance, many roots from the city outcasts and many other places in the city do not have such services hence citizens are always struggling in the morning and evening in the process of boarding. The study highlighted that despite the construction of the massive infrastructural investment, there is also frequent traffic jam in many parts of the country.

Matatu crew behaviour and customer satisfaction in the road transport sector

Public transport operators in most countries affect the quality of service that they provide to their customers. Smith and Clarke (2020) carried out a literature review of Crime and Public Transport. The study evaluated to conduct the participation of public transport crew in both organized, coordinated and uncoordinated crime across the world where the study established that; in most cases, the public crew do not observe other regulation, public transport vehicle drivers do not make the regulatory stickers given by the road transport bureau visible on their vehicles which is against the law. The findings of the study also highlighted that apart from general misconduct, they refuse to obey simple road use regulation and that customers wait longer time to get the public vehicles because they do not give frequent service to the customer.

In a highly competitive environment, virtually all companies are forced to be more customers oriented and to ensure that their staff provides quality and competitive services. Liden and Sutomo (2018) evaluate the Customer need consideration in Public Transport Development in Indonesia. The study evaluated different reports and literature on Public Transport Development in Indonesia and their level of customer satisfaction. The results highlighted that although Indonesia has invested in a good public transport system, the level of customer satisfaction in the public transport need to be

measured against international standards in other countries. On the importance of public transport crew, the results of the study supports the findings by Asri and Hidayat (2018) that services reliability, staff commitment, safety and convenience have a significant effect on customer satisfaction.

Customer satisfaction is one of the measures widely used in evaluating business performance across many factors. The assessment customer satisfaction and collected data from various groups, including public transport crew, public transport customers, competitors in the sector, investors and public policy makers. Kizigwe (2019) evaluated the effect of public transport crew character on competition in the public transport sector in Uganda. The study sampled 72 travelers to different destination using the the bus terminus in city of Kampala. The study also interviewed the public transport crew. The study established that public transport crew behavior was crucial on whether the customers boarded their vehicles or not and this also affected the extent to which the customers are satisfied with the services provided by various public transport providers.

Customer Satisfaction in the public road transport sector

Kizigwe (2019) evaluated the effect of public transport crew character on competition in the public transport sector in Uganda. The study highlighted that different models are developed to evaluate service quality as a result of these approaches either attitude-based measures or disconfirmation models. The study advised that while it is very crucial to assess service quality as it enables comparisons before and after changes, establishes quality related challenges and assists in developing clear standards for service delivery, the staff in a competitive transport sector is crucial in achieving the desired performance.

A study by Obondi (2018) carried on the effect of competitive strategies on the performance of the public service vehicles sector within the transport industry in Kenya. The study targeted 130 matatus in Rembo Shuttle Sacco, 56 matatus in County Link Sacco and 50 matatus in Umoinner Sacco. Specifically, it considered drivers, conductors and the owner or manager. The study established that unique crew competencies and conduct had a p-value of 0.002 and explained 77% of the variation in PSV performance that includes customer satisfaction in the public transport sector.

Busienei ,Bor and Osodo (2019) conducted a study on the strategies adopted by matatu savings and credit co-operative organizations on service quality in public passenger transport in Eldoret, Kenya. The cross-sectional survey research targeted 276 stakeholders in the matatu industry in Eldoret. The researcher used stratified sampling method where the population was placed in five strata that included matatu drivers, conductors, traffic police officers and SACCO officials. The findings of the study showed that fleet management, conduct and customer satisfaction was crucial in service delivery in public transport in Eldoret town.

Summary and gaps to be filled

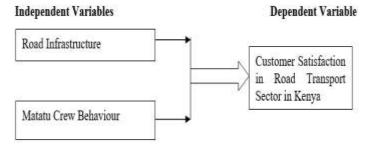
There are studies that have been done on customer satisfaction in road transport where Kizigwe (2019) highlighted that public transport crew behavior was crucial on whether the customers boarded their vehicles or not, Sutomo (2018) that the level of customer satisfaction in the public transport sector determines repeat sales, word-of-mouth recommendations, and customer loyalty

while Al-Sayaad, Rabea and Samrah (2018) established that customer satisfaction has been recognized as the most powerful competitive weapon that many leading service organizations possess.

While the above studies have focused on customer satisfaction and road transport separately, the studies have not covered the factors affecting customer satisfaction in road transport and additionally the studies were not carried out in Nairobi County, Kenya and therefore the findings of the studies cannot be generalized. Nairobi County provides a secotor representation that can provide a reflection of the factors affecting customer satisfaction in road transport in VUCA countries like Kenya.

Conceptual framework (the interrelation between the variables)

This part shows the schematic illustration of the relationship between the variables under investigation.



The infrastructure that the country has put in place affect public road transport thereby affecting the levels of customer satisfaction. Last there is need to ensure that the matatu crew conduct themselves properly and ensure that they are able to achieve the desired customer satisfaction.

Operationalization of variables

The study variables were operationalysed as follows

Table 1: Operational of variables

variable	indicators	Measurement	question
Road Infrastructure	Construction of Roads, Roads connectivity across the city,Number of matatu routes,Number of picking and droping points; roads are in good state to be used by public transport vehicles	Five Likert Scale	To what extent does road infrastructure affect customer satisfaction in the public road transport

Matatu Crew Behaviour	Matatu Crew conduct; Matatu Crew behavior; Matatu Crew training on customer care; existence of code of conduct for matatu crew; Individual	Five Likert Scale	To what extent does Matatu Crew Character affect customer satisfaction in
	SACCO disciplinary action  Levels of satisfaction; Levels of disatification:		the public road transport
Customer Satsifaction	Expected service performance; existence of Customer Service Charter; the crew adhere to the Customer Service Charter	Five Likert Scale	

#### III. METHODOLOGY

The study used descriptive research design to provide an indepth analysis of the phenomenon and portray an accurate profile of situations as suggested by Cooper and Schindler (2001). This design helps in establishing factors associated with certain occurrences, outcomes, conditions or types of behavior. According to Cooper and Schindler (2001), descriptive studies deal with the question of how people affect events, what event happen, when they happen and how in relation to the factors affecting customer satisfaction in road transport.

Target population and Sample Frame

The study population comprised of 344 respondents and included the County Transport Department Staff, the Traffic Officers and the Matatu SACCO Association and Matatu Crew that operate at various dropping and picking points in Nairobi county, which is a dynamic cosmopolitan city and a respresentative of the VUCA scenario.

Samples and Sampling Procedures

Through stratified sampling method, 148 respondents were sampled for study and was 30% of the total population targeted by the study. The respondents were proportional to the number of each strata selected from the different respondents sampled for the study.

# Data Collection

Quantitative data was collected through structured questions that was self-administered to the respondents. Questionnaires provide respondents with a free chance to respond to the questions posed to them. A "drop-and-pick" approach was employed in administering the questionnaire. The questionnaires underwent a test run to ensure effective data capture and reliability before the official roll out. Quantitative data collected was organized and cleaned and coded. Descriptive data analysis method was then used to generate descriptive statistical results through frequencies and percentages and were presented through frequency tables, charts and graphs for ease of understanding and interpretation. Conclusions and recommendations were thereafter drawn from the study results.

#### IV. FINDINGS AND DISCUSSIONS

The purpose of the study was to find out the factors affecting customer satisfaction in public road transport in Kenya with reference to Nairobi County.Amnong the key findings were the following

Descriptive Statistics Analysis

Effects of road infrastructure on customer satisfaction in public road transport in Kenya.

The first objective was to establish the effect of road infrastructure on customer satisfaction in public road transport in Kenya and the following were the responses.

Table 1: Effects of road infrastructure on customer satisfaction in public road transport in Kenya

Road	SA&A Neutral % %		SD&D	.,	CONTA
Infrastructure			%	Mean	STDV
Enough roads have been construction for effective public road transport	71.2	14.4	14.4	3.88	1.189
There is proper road connectivity across the city	85.6	9.6	4.8	4.16	1.003
There are enough matatus for the routes in the city and its environs	52.8	32.8	14.4	4.12	1.168
The roads have been constructed with enough picking and dropping points	63.2	22.4	16.0	3.90	1.361
The roads are in good state to be used by public transport vehicles	53.6	27.2	19.2	4.09	1.326

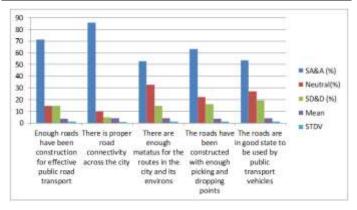


Fig. 1: Effects of road infrastructure on customer satisfaction in public road transport in Kenya

The findings of the study indicated that 71.2% of the respondents felt that enough roads have been construction for effective public road transport, 14.4% were either neutral or did not feel that enough roads have been construction for effective public road transport. This meant that many of the

respondents agreed that enough roads have been construction for effective public road transport.

The findings of the study indicated that 85.6% of the respondents felt that there is proper road connectivity across the city, 9.6% were neutral on whether there is proper road connectivity across the city while 4.8% of the respondents did not feel that there is proper road connectivity across the city. This meant that many of the respondents agreed that there is proper road connectivity across the city.

On whether there are enough matatus for the routes in the city and its environs, the findings of the study indicated that 52.8% of the respondents felt that there are enough matatus for the routes in the city and its environs, 32.8% were neutral on whether there are enough matatus for the routes in the city and its environs while 14.4% of the respondents did not feel that there are enough matatus for the routes in the city and its environs. This meant that many of the respondents agreed that there are enough matatus for the routes in the city and its environs.

The findings of the study indicated that 63.2% of the respondents felt that the roads have been constructed with enough picking and dropping points, 22.4% were neutral on whether the roads have been constructed with enough picking and dropping points while 16.0% of the respondents did not feel that the roads have been constructed with enough picking and dropping points. This meant that many of the respondents felt that to a large extent the roads have been constructed with enough picking and dropping points.

Lastly in this part the findings of the study indicated that 53.6% the roads are in good state to be used by public transport vehicles with 27.2% of the respondents were neutral on whether the roads are in good state to be used by public transport vehicles while another 19.2% felt that roads are not in good state to be used by public transport vehicles .This means that slightly more than half of the respondents felt that the roads are in good state to be used by public transport vehicles .

The findings of the study also indicated that proper road connectivity across the city had the highest effect with a mean of 4.16, followed by enough matatus for the routes in the city and its environs that had a mean of 4.12 while the lowest was enough roads have been construction for effective public road transport that registered a mean of 3.88. The findings of the study also indicated that response on whether the roads have been constructed with enough picking and dropping points had the highest variation of a standard deviation of 1.361 with the lowest being on whether there is proper road connectivity across the city that registered a standard deviation of 1.003.

Effects of matatu crew behaviour on customer satisfaction in public road transport in Kenya.

The second objective was to establish the effects of Public Transport Regulations on customer satisfaction in public road transport in Kenya and the following were the responses.

Table 2: Effects of matatu crew behaviour on customer satisfaction in public road transport in Kenya.

Madada anna babaniana	SA&A	Neutral	SD&D	M	CTDV
Matatu crew behaviour	%	%	%	Mean	STDV
Matatu Crew conduct is wanting	67.2	4.8	28.0	4.59	.685
Some of the Matatu Crew behave badly in a manner that does not appeal to customers	81.6	8.0	10.4	4.38	.830
There is need for Matatu Crew training on customer care.	82.4	6.4	11.2	4.30	.907
The Sacco has an existence of code of conduct for matatu crew.	84.0	6.4	9.6	4.08	1.036
Individual SACCO have their own disciplinary action against bad behaviour among its members	11.2	4.8	84.0	2.00	.916

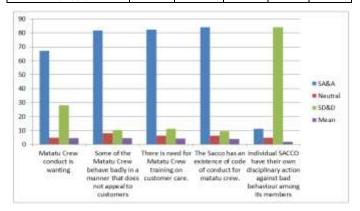


Fig. 2: Effects of matatu crew behaviour on customer satisfaction in public road transport in Kenya.

The findings of the study indicated that 67.2% of the respondents felt that Matatu Crew conduct is wanting, 4.8% were either neutral on whether Matatu Crew conduct is wanting while another 28.0% did not feel that Matatu Crew conduct is wanting. This meant that Matatu Crew conduct is wanting and needs to be improved on by the sector players.

The findings of the study indicated that 81.6% of the respondents felt that the Some of the Matatu Crew behave badly in a manner that does not appeal to customers, 8.0% were neutral on whether some of the Matatu Crew behave badly in a manner that does not appeal to customers while 10.4% of the respondents did not feel that some of the Matatu Crew behave badly in a manner that does not appeal to customers. This meant that many of the respondents were of the opinion that some of the Matatu Crew behaves badly in a manner that does not appeal to customers.

On whether there is need for Matatu Crew training on customer care, the findings of the study indicated that 82.4% of the respondents felt that there is need for Matatu Crew training on customer care, 6.4% were neutral on whether there is need for Matatu Crew training on customer care while

11.2% of the respondents were of the opinion that there is need for Matatu Crew training on customer care. This meant that many of the respondents were of the opinion that there is need for Matatu Crew training on customer care in order to provide better and quality services to their customers.

The findings of the study indicated that 84.0% of the respondents felt that the Sacco has an existence of code of conduct for matatu crew, 6.4% were neutral on whether the Sacco has an existence of code of conduct for matatu crew while 9.6% of the respondents did not feel that the Sacco has an existence of code of conduct for matatu crew. This meant that many of the respondents were of the opinion that the Sacco has an existence of code of conduct for matatu crew.

Lastly the study had sought to establish whether individual SACCO have their own disciplinary action against bad behaviour among its members, the findings of the study indicated that only 11.2% of the respondents felt that individual SACCO have their own disciplinary action against bad behaviour among its members, 4.8% were neutral on whether individual SACCO have their own disciplinary action against bad behaviour among its members while a very big percent of about 84.0% of the respondents were of the opinion that individual SACCO did not have their own disciplinary action against bad behaviour among its members. This meant that individual SACCO did not have a good way in place to discipline their members.

The findings of the study also indicated that Matatu Crew conduct is wanting had the highest effect on customer satisfaction with a mean of 4.59, followed by Some of the Matatu Crew behave badly in a manner that does not appeal to customers that had a mean of 4.38 while the lowest was Individual SACCO have their own disciplinary action against bad behaviour among its members that registered a mean of 2.00. The findings of the study also indicated that response on whether the Sacco has an existence of code of conduct for matatu crew had the highest variation of a standard deviation of 1.036 with the lowest being on whether Matatu Crew conduct is wanting that registered a standard deviation of .685.

Customer satisfaction factors in public road transport in Kenya.

The study had also sought to customer satisfaction in public road transport in Kenya and the following were the responses.

Table 3: Customer satisfaction in public road transport in Kenya

Customer Satisfaction In Public Road Transport	SA&A	Neutral	SD&D	Mean	STDV
	%	%	%		
Customers are highly satisfied by the matatu services	56.8	14.4	28.8	3.26	1.271
The Saccos have effective channels to register any dissatisfaction	58.4	27.2	14.4	3.59	1.308

The matatu services meet the customers' expectations	44.0	28.8	27.2	2.27	.447
The Sacco has a Customer Service Charter	11.2	30.4	58.4	4.27	.700
The crew adhere to the Customer Service Charter	32.8	14.4	52.8	4.24	.712

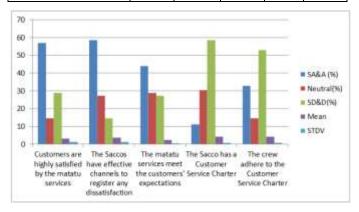


Fig. 3: Customer satisfaction in public road transport in Kenya

The findings of the study indicated that 56.8% of the respondents felt that customers are highly satisfied by the matatu services, 14.4% were either neutral on whether customers are highly satisfied by the matatu services while another 28.8% did not feel that customers are highly satisfied by the matatu services. This meant that only slightly more than a half customers felt that they were highly satisfied by the matatu services.

The findings of the study indicated that 58.4% of the respondents felt that the Saccos have effective channels to register any dissatisfaction, 27.2% were neutral on whether the Saccos have effective channels to register any dissatisfaction while 14.4% of the respondents did not feel that the Saccos have effective channels to register any dissatisfaction. This meant that many of the respondents were of the opinion that the Saccos have effective channels to register any dissatisfaction.

On whether the matatu services meet the customers' expectations, the findings of the study indicated that 44.0% of the respondents felt that the matatu services meet the customers' expectations, 28.8% were neutral on whether the matatu services meet the customers' expectations while 27.2% of the respondents felt that the matatu services did not meet the customers' expectations. This meant that only less than a half of all the respondents were of the opinion that the matatu services meet the customers' expectations.

The findings of the study indicated that 11.2% of the respondents felt that the Sacco has a Customer Service Charter, 30.4% were neutral on whether the Sacco has a Customer Service Charter while 58.4% of the respondents were of the opinion that the Matatu Saccos did not Customer Service Charter. This meant that only a few respondents felt that the Sacco has a Customer Service Charter.

Lastly the study had sought to establish whether the crew adhere to the Customer Service Charter, the findings of the study indicated that only 32.8% of the respondents felt that the crew adhere to the Customer Service Charter, 14.4% were neutral on whether the crew adhere to the Customer Service Charter while 52.8% felt that the crew did not adhere to the Customer Service Charter. This meant that that the crew did not adhere to the Customer Service Charter and therefore their services were not based on any quality standards.

The findings of the study also indicated that the Sacco has a Customer Service Charter was the most on crucial customer satisfaction factor with a mean of 4.27, followed by Some of the crew adhere to the Customer Service Charter that had a mean of 4.24 while the lowest was the matatu services meet the customers' expectations that registered a mean of 2.27. The findings of the study also indicated that response on whether the Saccos have effective channels to register any dissatisfaction had the highest variation of a standard deviation of 1.308 with the lowest being on whether the matatu services meet the customers' expectations that registered a standard deviation of .447.

#### V. SUMMARY

The findings of the 148 respondents sampled for the study, 84.5% % of the responded while 15.5% of the respondents did not respond to the study, the sector was dominated by averagely young adults and that most of the respondents were matatu crew that operates from different picking and stages in the CBD in Nairobi.The findings of the study also indicated that many of the respondents had worked for more than 6 years in the sector and therefore had the knowledge on the factors that affected customers' satisfaction. Additionally, this indicated that most of crews only changed SACCOs and vehicle owners but still remained in the industry with some having operated in the industry for more than 20 years.

Results shows that many of the respondents agreed that enough roads have been construction for effective public road transport, many of the respondents agreed that there is proper road connectivity across the city and that many of the respondents agreed that there are enough matatus for the routes in the city and its environs. The results also indicated that slightly more than half of the respondents felt that the roads are in good state to be used by public transport vehicles and that to a large extent the roads have been constructed with enough picking and dropping points.

The results showed that a good number of matatu operators belong to Matatu SACCO organizations, most of the matatu SACCO organizations are well managed and observe proper customer service and that Matatu SACCO organizations have effective organization policies. The results also indicated that Matatu SACCO organizations have the ability to manage members and that there are proper disciplinary procedures by the Matatu SACCO organizations.

On the effect of Public Transport Regulations on customer satisfaction in the public transport sector in Kenya, the results

also indicated that there are Public Transport Regulations set out by the ministry of transport as much as they are not followed well by the matatu operators, the regulations are adequate in managing public road transport in Kenya, existing disciplinary procedures for offenders is appropriate, the fines for offenders were found to be very lenient and that there is effective implementation of Matatu Industry regulations.

Lastly, on the effect of Matatu Crew conduct on customer satisfaction in the public transport sector in Kenya, the results indicated that the Matatu Crew conduct is wanting and needs to be improved on by the sector players, some of the Matatu Crew behaves badly in a manner that does not appeal to customers and that Matatu Crew training on customer care in order to provide better and quality services to their customers. The results of the study also indicated that the Sacco has an existence of code of conduct for matatu crew and that individual SACCO did not have a good way in place to discipline their members.

# VI. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter presents a synthesis of the entire study. The literature review identified the knowledge gap, the research methodology, and the subsequent analysis provided basis for the research findings. The discussions of the findings were done in accordance with the objectives of the study. A summary and concluding remark on the discourse, recommendations, limitations, and suggestions for further research are laid out in this chapter.

# Summary of the findings

Effects of road infrastructure on customer satisfaction in public road transport in Kenya

The findings of the study indicated that enough roads have been construction for effective public road transport, there is proper road connectivity across the city, there are enough matatus for the routes in the city and its environs and that the roads have been constructed with enough picking and dropping points . The need for proper connectivity for effective public road transport emphasizes the findings by Asri and Hidayat. (2018) that high movement of people in the city needs a fast transportation system that can ensure that there is a proper infrastructure to enable people to move from one point to another. The results also indicated that the roads are in good state to be used by public transport vehicles. The findings of the study also indicated that proper road connectivity across the city had the highest effect on customers satisfaction in the public transport in Kenya, followed by enough matatus for the routes in the city and its environs while the lowest was enough roads have been construction for effective public road transport.

Effects of matatu crew behaviour on customer satisfaction in public road transport in Kenya.

The findings of the study indicated that Matatu Crew conduct is wanting and needs to be improved on by the sector players. The findings emphasizes the findings by Kizigwe (2019) that stressed that public transport crew behavior was crucial on whether the customers boarded their vehicles or not and this also affected the extent to which the customers are satisfied with the services provided by various public transport providers. The findings of the study also established that some of the Matatu Crew behaves badly in a manner that does not appeal to customers and that the Sacco has an existence of code of conduct for matatu crew.

The results also indicated that there is need for Matatu Crew training on customer care in order to provide better and quality services to their customers and that individual SACCO did not have a good way in place to discipline their members. The findings the effect of individual matatu crew factors indicated that Matatu Crew conduct is wanting had the highest effect on customer satisfaction , followed by Some of the Matatu Crew behave badly in a manner that does not appeal to customers while the lowest was Individual SACCO have their own disciplinary action against bad behaviour among its members.

The results indicated that only slightly more than a half customers felt that they were highly satisfied by the matatu services, the Saccos have effective channels to register any dissatisfaction and that the matatu services meet the customers' expectations. Results shows that only a few respondents felt that the Sacco has a Customer Service Charter and that the crew did not adhere to the Customer Service Charter and therefore their services were not based on any quality standards. The study also indicated that the Sacco has a Customer Service Charter was the most on crucial customer satisfaction factor, followed by Some of the crew adhere to the Customer Service Charter while the lowest was the matatu services meet the customers' expectations.

# Conclusion

#### Road infrastructure

While enough roads have been constructed in Kenya the findings of the study indicated that proper road connectivity across the city had the highest effect on customers satisfaction in the public transport in Kenya, followed by enough matatus for the routes in the city and its environs while the lowest was enough roads have been construction for effective public road transport .This meant that roads were crucial in meeting customer satisfaction.

#### Matatu crew behaviour

Matatu crew behaviour was found to be wanting and needs to be improved by the sector players and some of the Matatu Crew behaves badly in a manner that does not appeal to customers and that the Sacco has an existence of code of conduct for matatu crew. There is need for Matatu Crew training on customer care in order to provide better and quality services to their customers. Iindividual SACCO did not have a good way in place to discipline their members. Matatu SACCO management must address the issue of Matatu Crew conduct which the study identified to be wanting and had the highest effect on customer satisfaction. The crew also behaved badly in a manner that does not appeal to customers and most of the customers were very much dissatisfied

#### Recommendation

#### Road infrastructure

There is need for improved road connectivity across the city especially in the areas that are under serviced and connectivity is poor. In order to achieve customers' satisfaction in the public transport in Kenya there is need to have enough matatus for the routes in the city and its environs in order to serve all the customers from all its environ. The states of the roads also need to be improved in order to meet customer expectations.

#### Matatu crew behaviur

There is needs of improved conduct by the sector players as some Matatu Crew behaves badly in a manner that does not appeal to customers. Where the SACOOs do not have an existence of code of conduct for matatu crew, there is need to develop one in order to provide guidelines on the matatu crew conduct. There is need for Matatu Crew training on customer care in order to provide better and quality services to their customers. Lastly, individual SACCO should put in place ways of disciplining their members in order to achieve customer satisfaction.

# Suggestion for Further Stsudies

There is need for a study on effect of training on behavior change of matatu crew in the public road transport sector in Kenya.

# **REFERENCES**

- Al-Sayaad, J., Rabea, A. and Samrah, A. (2018). Transport and economic development Studies, Dar Hafez, Jeddah, Kingdom of Saudi Arabia.
- [2] Asri, D.U. and Hidayat, B. (2018). Current Transport Issues in Jakarta and Its Impact on environment, Proceedings of the Eastern Asia Society for Transportation Studies, 5, 1792-1798.
- [3] Asum,K (2015) The impact on Kenyans of the cashless mode of payment being rolled out in the Matatu Industry, Department of mathematics, statistics and Actuarial Science, School of pure and applied science, Karatina University
- [4] Atalik, O. & Arslan, M. (2019). A Study to Determine the Effects of Customer Value on Customer Loyalty in Airline Companies

- Operating: Case of Turkish Air Travelers. International Journal of Business And Management,6(7)19-31
- [5] Busienei ,F.J , Bor,G and Osodo,P (2019) conducted a study on the strategies adopted by matatu savings and credit co-operative organizations on service quality in public passenger transport in Eldoret, Kenya. International Journal of Economics, Commerce and Management,5(2),548-566
- [6] Budiono, O, A (2019) Customer Satisfaction In Public Bus Transport, A study of travelers' perception in Indonesia, Master Thesis, Service Science Program, Karlstad University.
- [7] Dadkhah,MR.(2016).Customer Oriented concepts and principles, (11th ed.). Service management operation strategy and information technology, Daftar Pajoohesh farhangi, Tehran.
- [8] Eboli, L. & Mazzulla, G. (2017). Service quality attributes affecting Customer Satisfaction for Bus Transit in Tanzania. Journal of Public Transport, 10 (3), 21-34.
- [9] Ellaway, A., and Kearns, A. (2019). In the driving seat: Psychosocial benefits from private motor vehicle transport compared to public transport. Transportation Research Part F: Traffic Psychology and Behavior, 6, 217-231.
- [10] Fellesson, M.F., Margareta (2018). Perceived Satisfaction with Public Transport Service in Nine European Cities. Journal of the Transportation Research Forum, 47 (3), 93-103.
- [11] Friman, M., Edvardsson, B. & Gärling, T. (2020). Frequency of negative critical incidents and satisfaction with public transport services. International Journal of Retailing and Consumer Services, 8 (2), 95-104.
- [12] Getachew,G (2019) The Impact of Transportation Service Quality on Customer Satisfaction: Evidence from Amhara Region, Ethiopia, International Journal of Health Economics and Policy, 4(2), 49-57. doi: 10.11648/j.hep.20190402.13
- [13] Jamal A. and Naser, K. (2018) Customer satisfaction and retail banking an assessment of some of the key antecedents of customer satisfaction in retail banking, International Journal of Bank Marketing, 20, (4) 146-160.
- [14] Kizigwe Z (2019) Effect of public transport crew character on competition in the public transport sector in Uganda, Makerere University, Kampala Uganda
- [15] Kizito,J (2020) The role of training in enhancing public transport conduct in Tanzania, University of Dar es salam, Tanzania
- [16] Kiage,P (2019) A competitive environment in the public road transport in Kenya, University of Nairobi, Kenya.
- [17] Karts, B (2018) Redefining urban and surburban infrastructure, Journal of infrastructural Development, 2(40,78-92
- [18] Lang, R,T (2003) Edgeless Cities , Journal of Public Transport, 4 (5), 102-114.
- [19] Iles, R. (2015). Public Transport in Developing Countries, Elsevier Ltd. London.UK
- [20] Liden, S.B., and Sutomo, H. (2018). Bringing the Customer into Public Transport Development - A Pilot Study of Service Quality in Public Transportation in Indonesia. (Paper for Hongkong Seminar edn.). Hong Kong: .
- [21] Magwala,P(2018) Factor influencing customers' satisfaction in urban transportation at Kinondoni municipal specifically at Makumbusho bus stand, University of Dar es salam, Tanzania.
- [22] Olakunori, O. K. (2017). Transportation Management, Grovani Publishers, Enugu
- [23] Obondi,E,M (2015) Competitive Strategies and The Performance of Matatus in The Public Service Transport Sector in Nairobi City County, Kenya, Kenyatta University, Kiambu, Kenya.
- [24] Smith, M.J. & Clarke, R.V. (2020). Crime and Public Transport. Crime and Justice: A review of research, 27(2),45-67