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# Leadership Capacity and Competency and Systematic Governance Failures in Motorcycle Transport Safety in Kenyan Cities

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## ABSTRACT

**Purpose:** Road traffic crashes currently stand out as one of the key challenges facing both developed and developing countries. Kenya has in the recent decades experienced an alarming rise in the number of people who lose their lives along the roads. This situation has been aggravated by the emergence of motorcycles as a means of commercial transport in Kenya. While attempts have been made by the Kenya government to address existing motorcycle safety challenges, no significant attempt has been made to address systematic governance failures in motorcycle transport safety challenges from a governance perspective. This study therefore sought to determine the influence of leadership capacity and competency on systematic governance failures in motorcycle transport safety in Kenyan cities.

**Methodology:** The study was conducted in Kenya's cities (Nairobi, Mombasa and Kisumu) adopted a descriptive and cross-sectional survey research design. The target population was 266,049 motorcycle riders in the three Kenyan cities. The sample size was determined by use of Fisher formula involving cluster and simple random sampling method to select 384 respondents. The study used primary data, collected by use of semi-structured questionnaires. A pilot study was done to test the validity and reliability of the questionnaire. Data was analyzed using both descriptive and inferential statistics with the help of SPSS version 26.0. Quantitative data was summarized and presented in tables, charts and graphs.

**Findings:** Based on the research findings, the regression findings affirmed that Leadership capacity and competency ($\beta$=0.275, p=0.000) has a positive and significant effect on systematic governance failures in motorcycle transport safety in Kenyan cities.

**Unique Contribution to Theory, Practice and Policy:** The government should ensure that visible sign boards directing the motorists on the actions to take while on different roads. The *Boda boda* groups/leaders should collaborate with the leaders and well-wishers to help in constructing *Boda boda* shades. The county government should also ensure that the motorists have a secluded place to avoid harassments from the county officers.

**Key Words:** *Leadership Capacity, Competency, Systematic Governance Failures, Motorcycle Transport Safety*

**Background of the Study**

Systemic governance failures in road traffic management remain widespread. Despite the presence of formal institutions such as the National Transport and Safety Authority (NTSA) and county road authorities, enforcement of traffic laws is often weak, fragmented, and inconsistent (World Bank, 2022; NTSA, 2024). These challenges are further exacerbated by corruption, inadequate infrastructure, and overlapping institutional mandates, which undermine coordination and hinder effective policy implementation (Transparency International, 2021; Muendo & Maina, 2023). Consequently, Kenya continues to record a high annual road traffic death toll, with motorcycles accounting for a significant and growing share of fatalities due to lax enforcement, insufficient rider training, and inadequate supporting infrastructure (NTSA, 2024).

Governance failures in road traffic in Kenya are evident through weak institutions, poor inter-agency coordination, corruption, inadequate enforcement, and insufficient infrastructure. Road traffic fatalities remain alarmingly high, with over 4,000 deaths recorded in 2023, disproportionately affecting vulnerable groups such as pedestrians and boda boda riders (NTSA, 2023). These fatalities often reflect deeper systemic and institutional weaknesses rather than isolated driver error. For example, overlapping mandates among the NTSA, local authorities, and the police contribute to duplication of roles, policy paralysis, and inconsistent enforcement (World Bank, 2022). In addition, corruption undermines accountability, enabling risky practices such as speeding, overloading, and unlicensed operations to persist (Transparency International Kenya, 2021).

Effective governance ensures efficient transport systems that minimize congestion, reduce travel time, and lower vehicle operating costs. This is particularly important in Nairobi and other rapidly growing cities, where traffic congestion has become a daily challenge that negatively affects productivity and quality of life. Poor governance generally results in unplanned urban growth, weak enforcement of zoning regulations, and inefficient public transport systems, all of which worsen mobility and increase emissions (UN-Habitat, 2022). In addition, good road traffic governance promotes equity and inclusivity in mobility by protecting vulnerable road users such as school-going children, women, persons with disabilities, and the elderly. It also enhances public trust and institutional accountability through fair and transparent enforcement of traffic laws.

The African region records the highest road fatality rate globally, estimated at 24 deaths per 100,000 vehicles, which is well above the global average of 18 deaths per 100,000 vehicles. This is particularly concerning given that the region has the lowest motorization level, accounting for only about 2% of the world's total vehicles. This disproportionate burden highlights serious road safety challenges across the continent. In addition to causing immense social costs to individuals, families, and communities, road traffic crashes also strain already limited health services and negatively affect economic development, productivity, and overall national growth (World Health Organization, 2020).

In Kenya, an average of 3000 lives are lost annually through road traffic crashes. Over ten times this number end up partially or permanently maimed. Over the years, motor vehicles

have been the leading cause of road traffic crashes in Kenya while leading victims have been pedestrians (Muguro *et al.,* 2020). However, there has been a shift in causes of road traffic crashes in Kenya with motorcycles taking the lead (National Transport and Safety Authority, 2020). Kenya has experienced an upsurge in use of motorcycles as a means of transport since the year 2008 when the Government zero-rated tax on motorcycles with less than 250cc (Mugambi, 2021). For example, in 2005, there were 3,730 motorcycles registered in Kenya. Currently, total population stands at 1,300,000 (National Transport and Safety Authority, 2020).

According to the Global Road Safety Partnership Report (2022), in many low- and middle-income countries, motorcycles are an increasingly common mode of transport, with users of this mode accounting for a large proportion of those injured or killed in road traffic crashes. Motorcycle riders and their pillion passengers face a heightened risk of involvement in crashes due to several contributing factors, including limited protection, poor road conditions, and weak enforcement of traffic regulations. Consequently, motorcycle users are classified as part of vulnerable road users (VRUs), requiring targeted safety interventions and improved road traffic governance.

Ethical leadership has emerged in scholarship as a critical determinant in addressing governance failures. Ethical leadership encompasses transparency, accountability, integrity, and participatory decision-making within institutions responsible for public safety (Brown & Treviño, 2020; Kapalka & Greasley, 2022). In the context of road traffic governance, ethical leadership directly influences enforcement consistency, resource allocation, and institutional coordination. Weak leadership capacity and competency limit the ability of traffic authorities to implement coherent safety strategies, even when sound policies exist (AfDB, 2023). Institutional integrity ensures rules are applied impartially and reduces opportunities for corruption that compromise road safety outcomes (TI-Kenya, 2022).

**Statement of the Problem**

Road traffic injuries remain a major global development and public health concern, particularly in low- and middle-income countries such as Kenya. The World Health Organization (WHO, 2023) estimates that over 1.3 million people die annually from road crashes, with millions more sustaining injuries, many resulting in lifelong disability. In Kenya, road traffic fatalities have remained persistently high, with over 4,000 deaths reported annually in recent years, and motorcycles accounting for a significant share of these deaths (NTSA, 2024). In Kisumu City, motorcycle crashes account for between 41% and 62% of all reported road traffic incidents (Maharjan & Dhakal, 2023), highlighting severe safety governance challenges. In Nairobi Metropolitan area, motorcyclists and pedestrians make up nearly 70% of all road fatalities, demonstrating persistent urban safety failures (NTSA, 2025).

Despite multiple policy and institutional interventions, including the establishment of the National Transport and Safety Authority (NTSA), mandatory helmet laws, rider training programs, and digitized traffic enforcement systems, motorcycle safety outcomes remain poor. Enforcement of traffic laws continues to be inconsistent, particularly within urban

informal transport systems where boda boda operators often function with limited compliance to licensing, training, and safety requirements (World Bank, 2022). In Kisumu and Nairobi, the high proportion of motorcycle-related crashes indicates that existing interventions have not effectively addressed behavioural, institutional, and enforcement gaps. Weak coordination among NTSA, traffic police, and county governments further undermines implementation, leading to fragmented and ineffective road safety governance strategies.

The economic and social burden of motorcycle-related crashes remains severe and continues to strain Kenya's development agenda. The country loses approximately KES 300 billion annually due to road traffic accidents, equivalent to 3–5% of GDP, largely driven by medical costs, loss of productivity, and property damage (Kenya Roads Board, 2021; World Bank, 2022). Urban referral hospitals such as Kenyatta National Hospital, Moi Teaching and Referral Hospital, and Jaramogi Oginga Odinga Teaching and Referral Hospital consistently report high trauma admissions linked to boda boda accidents (KNH, 2023). Despite awareness campaigns and enforcement efforts, persistently high crash rates in cities such as Nairobi and Kisumu reflect ongoing governance weaknesses, inadequate rider discipline, and limited effectiveness of current road safety interventions.

Several studies have examined specific aspects of this crisis. For example, Nyachieo (2024) investigated the influence of ineffective governance on the motorcycle sector in Kenya's transport industry, while Ngetich et al. (2025) assessed road safety practices influencing motorcycle accidents among victims treated at Nakuru Level 5 Hospital. Gatabaki et al. (2022) explored institutional frameworks governing motorcycle transport. These studies provide valuable insights into individual risk factors and regulatory weaknesses. However, most have focused narrowly on compliance or rider behavior, with limited analysis of the broader road traffic governance ecosystem, including institutional coordination, enforcement practices, urban planning, public participation, and corruption. Moreover, few studies have connected governance failures directly to the combined health and economic burden of unsafe motorcycle transport in multiple urban contexts. This study sought to fill that gap by providing a comprehensive analysis of the leadership capacity and competency and how it influences systematic governance failures in motorcycle transport safety in Kenyan cities.

**General Objective**

To determine how leadership capacity and competency influences systematic governance failures in motorcycle transport safety in Kenyan cities

**Theoretical Review**

Various theories underpin the understanding of literature review on the governance challenges influencing the safety of motorcycle transport in Nairobi, Mombasa and Kisumu. Key among these theories and of particular relevance to the present study which is to determine the influence of governance challenges on the safety of motorcycle transport in Nairobi, Mombasa and Kisumu include stakeholder's value theory Theory as discussed below.

**The Stakeholders Value Theory**

The Stakeholder Value Theory was originally developed by R. Edward Freeman in 1984, who argued that organizational success should not be measured solely by shareholder returns but by the value created for all stakeholders. Stakeholder value describes the contribution an organization makes to society and encompasses both economic and social dimensions. In public management, Mark H. Moore extended this idea by introducing the concept of public value, emphasizing how entrepreneurial actions in the public sector can promote the common good. Today, the concept applies across public, private, and non-governmental organizations, highlighting the broader responsibility of institutions toward society.

The term stakeholders refer to individuals, groups, or organizations that affect or are affected by an organization's activities. These include owners, employees, customers, investors, suppliers, government agencies, local authorities, non-governmental organizations, pressure groups, and the media. According to Freeman (1984), organizations must balance the interests of these groups to achieve long-term sustainability. This approach shifts management focus from profit maximization to value creation for a wider network of actors. As such, stakeholder engagement becomes a strategic necessity for improving organizational legitimacy, trust, and overall performance in both public and private sector institutions.

In its psychological-based interpretation, stakeholder value emerges from individuals' experiences within social structures and relationships, making it both a subjective and collective construct. Meynhardt (2009) argues that public value can be understood as a resource for successful living, derived from interactions between citizens and institutions. He proposes a structured framework for defining, creating, and measuring Public Value Capital, incorporating unique public sector assets such as mandate capital and development state capital. This framework is designed to improve service delivery, optimize costs, and enhance the efficiency of public institutions while ensuring value creation for citizens and communities.

Stakeholder Value Theory further distinguishes two primary sources of public value. The first is the value created by improving government institutions as societal assets, while the second arises from the direct delivery of benefits to individuals and groups. For example, the German Federal Employment Agency applies the public value concept to assess its broader societal contribution beyond administrative functions, including its role in maintaining social stability (Meynhardt & Bartholomes, 2011). This demonstrates how public organizations can use stakeholder-oriented approaches to enhance legitimacy and performance through measurable societal outcomes.

The theory has also been applied in both public and private sector decision-making, particularly in evaluating investments such as Information Technology systems. A study by the USA Center for Technology in Government (CTG) in partnership with SAP (2006) found that the value of government IT investments cannot be fully captured through financial metrics alone, as they also generate significant social and political benefits. Building on this, Meynhardt and Gómez (2014) proposed the Public Value Scorecard as a tool for assessing

value creation across utilitarian, moral, political, and hedonic dimensions, reinforcing the need for a holistic understanding of organizational impact on society.

Stakeholder Value Theory explains that organizations create value by balancing and responding to the interests of multiple stakeholders rather than focusing on a single group. In the context of this study, the theory is applied to understand how leadership capacity and competency shape systemic governance failures of motorcycle transport safety in selected Kenyan cities. Effective leadership determines how well institutions coordinate stakeholders, enforce regulations, and promote safe riding practices within the bodaboda sector. Where leadership is weak, fragmentation, poor coordination, and weak enforcement emerge, increasing the likelihood of accidents and governance failures in urban transport systems.

Within the motorcycle transport sector, particularly under ongoing regulatory reforms, stakeholders such as riders, passengers, regulators, and enforcement agencies are expected to contribute collectively to road safety outcomes. Leadership capacity and competency become critical in aligning these actors toward shared safety objectives and ensuring compliance with established traffic laws. According to Lorenz (2015), public value perspectives extend traditional concepts of value creation by emphasizing broader societal benefits beyond individual or organizational gains. In this regard, Stakeholder Value Theory provides a strong conceptual basis for assessing how leadership effectiveness influences governance quality and road safety performance in Kenya's urban motorcycle transport systems.

**Conceptual Framework**

According to Kothari (2014), a conceptual framework illustrates the relationship between independent and dependent variables, where independent variables are assumed to cause or influence changes in the dependent variable. Mugenda and Mugenda (2013)

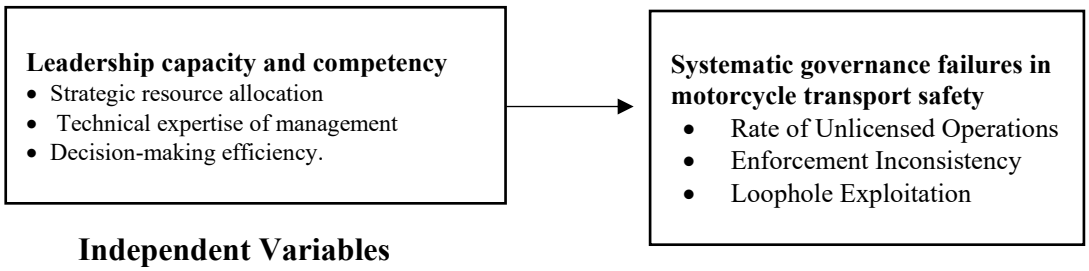


**Figure 1: Conceptual Framework**

**Leadership capacity and competency**

Strategic resource allocation, as a sub-variable of leadership capacity and competency, is central to understanding governance outcomes in this study. As can be seen in the World Bank, (2020) report, strategic resource allocation goes beyond routine budgeting to reflect the ability of leaders to deliberately align financial, human, technological, and infrastructural resources with strategic priorities and public safety needs. In this sense, resource allocation becomes a practical manifestation of leadership effectiveness: competent and ethical leaders allocate resources in ways that maximize societal benefit, while weak or unethical leadership

results in misallocation, inefficiency, and ultimately governance failure (Mugambi & Theuri, 2014).

Applied to motorcycle safety in Kenyan cities, this implies that the persistence of road safety challenges is less a result of resource scarcity and more a consequence of how available resources are prioritized, allocated, and utilized within governance systems. Inefficiencies in leadership decision-making, enforcement strategies, and institutional coordination often determine the effectiveness of road safety interventions. Complementing this perspective, Upper Echelons Theory argues that organizational outcomes are largely shaped by the values, cognitive orientations, experiences, and personal biases of top leaders (Hambrick & Mason, 1984). Together, these theories highlight the critical role of leadership in influencing road safety governance outcomes.

Secondly, technical expertise of management, as a sub-variable of leadership capacity and competency, is a critical determinant of governance effectiveness in this study. It refers to the specialized knowledge, professional skills, and analytical capabilities that leaders and managers possess to design, implement, and evaluate technically sound policies and interventions. Unlike general leadership traits, technical expertise speaks to whether those in charge actually understand the systems they are governing. Without it, even well-intentioned leadership risks producing superficial or misdirected solutions.

Ethical intent without technical competence can be just as damaging as unethical behavior. Leaders may genuinely aim to improve motorcycle safety but fail due to poor understanding of what works. Conversely, technically skilled leaders without ethical grounding may manipulate systems for personal or political gain. Therefore, effective governance requires the integration of ethical orientation and technical capability. Ethical leadership ensures that decisions are guided by public interest, while technical expertise ensures that those decisions are viable and effective (Brown & Treviño, 2006).

In the Kenyan context, gaps in technical expertise among management contribute significantly to governance failures in motorcycle safety. For instance, inadequate understanding of road safety engineering can lead to infrastructure designs that inadvertently increase risk for motorcycle users. Similarly, limited expertise in transport data analysis undermines the ability to identify accident hotspots and allocate resources strategically. Studies on road safety in low- and middle-income countries highlight those institutional weaknesses, including limited technical capacity, are major barriers to effective intervention (Bliss & Breen, 2012). This suggests that the problem is not merely one of enforcement or compliance, but of deeper systemic incapacity within leadership structures.

**Empirical Literature Review**

**Leadership Capacity and Competency**

Leadership capacity and competency has been widely recognized as a central challenge in the governance of road traffic systems. Peden et al. (2018) conducted a global review of road safety governance and found that countries with strong institutional frameworks, clear mandates, and well-coordinated enforcement systems achieved sustained reductions in road

traffic fatalities. In contrast, countries with fragmented governance structures and weak enforcement capacity continued to experience higher crash rates. These results align closely with Singh et al. (2022) in India, who found that strong leadership capacity and coordinated multisectoral enforcement significantly reduced road traffic fatalities under the Safe System approach. Both studies therefore confirm that integrated governance and coordination are key determinants of improved road safety outcomes, while institutional fragmentation leads to persistent systemic failures.

Similarly, Kim and Park (2021) in South Korea found that sustained leadership commitment, strict enforcement, and integrated governance systems resulted in significant long-term reductions in road fatalities. When compared with Peden et al. (2018), both studies reinforce the importance of strong institutional coordination and structured policy implementation in achieving road safety improvements. However, Kim and Park (2021) emphasize long-term leadership continuity, while Peden et al. (2018) focus more broadly on institutional design and structural capacity, showing that both governance structure and leadership stability are essential for effective road safety management.

In Uganda, Mwesigwa (2021) found that decentralization of traffic governance without corresponding capacity building at the local institutional level led to inconsistent enforcement of traffic laws and weak adaptation of national policies. Similarly, Mugisha et al. (2023) examined urban transport governance and leadership effectiveness in informal transport systems in Uganda. Their study revealed that weak leadership capacity, unclear institutional mandates, and limited resources resulted in fragmented enforcement of regulations and significant governance gaps, particularly within motorcycle and informal transport sectors. Compared to more centralized and well-coordinated systems, these findings show that decentralization without adequate institutional strengthening contributes to greater road safety risks and enforcement inconsistencies.

In Tanzania, Salum et al. (2024) investigated motorcycle transport governance and leadership challenges in road safety enforcement, focusing on how institutional leadership influences compliance and safety outcomes. Their study found that weak leadership capacity, poor inter-agency coordination, and inadequate supervision of enforcement officers led to high motorcycle crash rates and persistent governance failures in road safety management. When compared to the Ugandan studies, both contexts demonstrate similar patterns of weak leadership and institutional fragmentation; however, the Tanzanian study places greater emphasis on enforcement supervision gaps, while the Ugandan studies highlight decentralization and mandate ambiguity as key drivers of governance failure.

In Kenya, Onyango and Njenga (2019) conducted a study on institutional governance and road safety performance with the purpose of examining how weaknesses in institutional structures affect traffic management outcomes. The study found that poor coordination among agencies, inadequate surveillance systems, and weak enforcement of traffic regulations significantly contributed to persistent gaps in road safety programming. These weaknesses undermined the effectiveness of road safety interventions, particularly in rapidly urbanizing areas with high motorcycle usage. When compared with Uganda (Mwesigwa,

2021; Mugisha et al., 2023) and Tanzania (Salum et al., 2024), Kenya shows similar institutional fragmentation patterns, although the Kenyan case places stronger emphasis on inter-agency coordination failures.

A study by Guyo (2025) examined the influence of leadership capacity within the National Transport and Safety Authority (NTSA), Kenya on road safety performance. The purpose of the study was to assess how leadership competence, coordination, and strategic implementation affect road safety outcomes. The findings revealed that weak leadership capacity led to poor inter-agency coordination, inconsistent enforcement of traffic laws, and ineffective implementation of road safety strategies, resulting in persistent road traffic crashes. Compared to Uganda (Mwesigwa, 2021; Mugisha et al., 2023) and Tanzania (Salum et al., 2024), Kenya's findings closely align with Tanzania's emphasis on enforcement weaknesses, while also reflecting Uganda's challenges of institutional capacity gaps and mandate ambiguity.

Similarly, Kinyua et al. (2023) in Kenya examined institutional leadership and governance capacity in the motorcycle transport sector. The purpose of the study was to assess how leadership structures influence regulation, compliance, and safety in boda boda operations. The study found that weak leadership capacity, fragmented coordination, and lack of clear enforcement systems contributed to disorganized governance and increased motorcycle-related accidents. In comparison, Uganda (Mwesigwa, 2021; Mugisha et al., 2023) highlights decentralization without adequate capacity building as a key challenge, while Tanzania (Salum et al., 2024) emphasizes weak enforcement supervision. Overall, Kenya's challenges are more concentrated in fragmented leadership and weak sector-specific regulation within the motorcycle transport system.

## RESEARCH METHODOLOGY

### Research Philosophy

This study was grounded in the pragmatism research philosophy, which emphasizes the practical application of research methods based on the nature of the problem being investigated. Pragmatism is not committed to any single philosophical position but instead focuses on what works best in addressing research questions through the integration of both quantitative and qualitative approaches (Saunders, Lewis, & Thornhill, 2019). It is based on the assumption that reality is complex, context-dependent, and can be understood through multiple perspectives, allowing researchers to select methods that best provide useful and actionable insights.

### Research Design

The study adopted a descriptive research design with both quantitative and qualitative approaches which is deemed appropriate because the main interest is to establish the relationship and analyze how the influential factors support matters under analysis. The purpose of descriptive research is to determine and report the way things are and it helps in establishing the current status of the population under study (Siedlecki, 2020). A question-and-answer approach was adopted.

**Target Population**

The total target population was 266,049 as shown in Table 1, distributed across the study areas as follows: Nairobi County has 127,080 licensed motorcycle riders, Mombasa County has 63,175 riders, and Kisumu County has 75,794 riders.

**Table 1: Target Population**

| Cities | Total No. of Licensed Motorcycle riders |
|---|---|
| Nairobi | 127,080 |
| Mombasa | 63,175 |
| Kisumu | 75,794 |
| **Total** | **266,049** |

Source: NTSA (2023)

**Key Informant Interviews (KIIs)**

In addition to *Boda boda* riders, the study gathered qualitative data through Key Informant Interviews (KIIs) with selected stakeholders who play a central role in road traffic governance and regulation in urban settings in Kenya. These key informants were be drawn from; Traffic Police Departments. These officers are involved in day-to-day enforcement of traffic laws and have direct interaction with *Boda boda* riders.

**Sampling Frame**

The sample size was determined by the use of the Online Sample Size Calculator (Rahman *et al.,* 2022). This calculator has three main features; the population, confidence level, and confidence interval. It utilizes the three features named above to come up with the required sample size. The calculator uses a standard sample estimation Fisher formula as follows:

$$n = \frac{Z^2 pq}{d^2}$$

Where;

*n*= sample size

*z*= the standard normal deviate value for the level of confidence, for instance 95% level of confidence =1.96.

*d*= margin of error or level of precision at 0.1 for CI at 95%

*p*= proportion to be estimated and assumed p=0.5.

Substituted as in:

$$n = \frac{1.96^2 \times 0.5 \times 0.5}{0.05^2}$$

$$n = 384.16$$

Therefore:

n = 384 riders

To distribute the study sample, the study utilized a two-stage cluster sampling technique. Cluster sampling is an equal probability sampling method (EPSEM).

The total population of the 6 selected clusters was more than 10,000. The needed sample of individuals is 384. To achieve this, the study had to determine the number of riders that would be selected from each of the selected clusters. This was done by using proposition or sample weight of the population within the clusters (percentage cluster population from the total (6) clusters). The percentage of each cluster was used to determine the sample size for each cluster thus a total of 384 riders. The riders were reached through their operation bases located in different parts of the city. Finally, all selected clusters were subjected to simple random sampling technique to get the required sample of 384.

**Table 2: Sample Size**

| Cities | Total No. of Licensed Motorcycle riders | Proportion Sample (Weight %) | Total Sample |
|---|---|---|---|
| Nairobi | 127,080 | 47.77% | 183 |
| Mombasa | 63,175 | 23.75% | 91 |
| Kisumu | 75,794 | 28.49% | 109 |
| **Total** | **266,049** | **100.00%** | **384** |

**Source:** Proportionate allocation: nf = Ni/N*n. Where; nf = the sample in each stratum, Ni = target population in each stratum, N = the target population and n = the desired total sample size.

### Data Collection Instruments

The study used questionnaires to collect primary data. They had both open and closed ended questions and were administered face-to-face. The questionnaires used a Likert Scale ranging from 1-5 where 1 = Strongly disagree, 2= Disagree, 3= Neither agree nor disagree, 4= Agree and 5= Strongly agree. The questionnaires fit the study because they cover a large population of the samples, eliminate bias and allow respondents time to study and reflect on the questions hence avoiding prompt responses.

### Pilot Testing

A pilot study is a small-scale preliminary study conducted in order to evaluate feasibility, time, cost, adverse events, and effect size in an attempt to predict an appropriate sample size and improve upon the study design prior to performance of a full-scale research project (Doraiswamy *et al.,* 2022). The researcher carried out a pilot study to pre-test and validate the questionnaire and the interview guide. According to Barthold *et al.* (2022), the pilot group can be 5-10 percent of the population apart from the sample. This therefore translated to 38 respondents other than the 386 sampled respondents. After the pre-test, the researcher modified the areas of relevance to ensure reliability and validity.

### Data Analysis and Presentation

After data collection, the data obtained from the field, the returned questionnaires were edited for completeness, cleaned, coded and entries made into Statistical Package for Social Sciences (SPSS version 26.0).

Descriptive analysis involved the use of frequencies in their absolute and relative forms (percentage).

To establish the relationships among the study variables, a Pearson's Product Moment correlation analysis was done.

Multiple regression was done at 95% confidence level and 5% level of significance. This was done to establish how much contribution is made by the predictor variables on the dependent variable. The justification for the use of the multiple regression was because it enables the comparison of the magnitude of the probabilities (Rashid, 2020). A multiple regression equation for predicting *boda boda* transport safety is expressed as follows:

$$\mathbf{Y = \beta_0 + \beta_1 X_1 + + \mathscr{E}} \ \ldots\ldots\ldots \text{(Model 1-Without Moderation)}$$

Where;

Y = Safety of motorcycle transport users

$\beta_0$ = Constant

$X_1$ = Leadership capacity and competency

$\beta_1$. = Regression Coefficients of four variables

$\mathscr{E}$= Error Term

## RESEARCH FINDINGS AND DISCUSSIONS

### Response Rate

The sample was 384 riders out of which 302 consented to participate in the study and successfully answered the questionnaires. This represented 78.2% response rate. The outcome is in line with Agustini (2018) who indicated that a response rate of above 50% is adequate for a descriptive study. Similarly, Hendra and Hill (2019) observed that response rate of 50% can be justified, 60% is good and 70% is very good.

**Table 3: Response Rate**

| Responses | Frequencies | Percentage (%) |
|---|---|---|
| Properly filled and returned | 302 | 78.65% |
| Unreturned | 82 | 21.35% |
| **Total Responses Issued out** | **384** | **100.00%** |

### 4.5 Descriptive Statistics

Descriptive statistics in research involve the use of numerical and graphical methods to summarize and present data in a meaningful and interpretable manner. These statistics provide a snapshot of the main features of a dataset, helping researchers gain insights into its central tendencies, variations, and distribution patterns. Descriptive statistics serve as a fundamental tool for summarizing large and complex datasets. They condense raw data into concise, understandable measures, allowing researchers to grasp the key characteristics of the information at a glance. They highlight the central values around which data tend to cluster.

Common central tendency measures include the mean (average), median (middle value), and mode (most frequent value). These measures offer a sense of the "typical" value in the dataset. Descriptive statistics also provide context for interpreting research findings. When presenting results, researchers can use these statistics to provide a clear and concise summary of the data's main characteristics.

**Leadership Capacity and Competency**

The first objective was to determine the influence of Leadership capacity and competency on systematic governance failures in motorcycle transport safety in Kenyan cities. The respondents were asked to rate their agreement with the statements regarding Leadership capacity and competency issues affecting Systematic governance failures in motorcycle transport safety in Kenyan cities. The survey results present a generally positive outlook on the state of governance and institutional capacity related to systematic governance failures in motorcycle transport safety in Kenya's cities. With average mean scores ranging between 3.96 and 4.21, and a collective average of 4.10, the responses reflect a moderately high level of agreement with key governance and capacity statements. Additionally, the standard deviations (ranging from 0.72 to 0.78) suggest a moderate consensus among respondents, with limited variability in opinions.

On the lack of an integrated policy framework and its contribution to overlapping mandates and inefficiencies received a mean score of 4.21, the highest in the dataset. This indicates strong agreement that policy fragmentation has negatively impacted road safety outcomes. Respondents appear to recognize the importance of streamlined governance structures and unified mandates in enhancing coordination and response mechanisms. Similarly, the item on coordination between enforcement agencies and road safety regulators scored a mean of 4.15, showing that respondents generally agree that coordination exists but may still require improvement. The proximity in scores between policy framework concerns and coordination mechanisms suggests that respondents see these as interconnected issues that directly affect operational efficiency.

Further, respondents moderately agreed that there is adequate human resource capacity in the motorcycle transport sector, with a mean score of 4.20. This perception is supported by a closely related statement on government-led training for safety personnel, which recorded a mean score of 4.17. These findings suggest that capacity-building initiatives are present and are perceived to be reasonably effective within the sector. However, the slightly lower scores indicate that gaps may still exist in the depth, consistency, and coverage of training programs. This implies a need for continuous strengthening of capacity-building efforts, particularly in the rapidly expanding boda boda (motorcycle taxi) sector to enhance overall road safety outcomes.

On adequacy of data collection and analysis for decision-making yielded a slightly lower mean of 4.04. This suggests that while there is recognition of efforts in place, respondents may perceive gaps in data availability, quality, or utilization. Given that evidence-based policymaking is critical for road safety, this highlights a potential area for improvement. In terms of public agency funding, the statement recorded a mean of 4.00, with a standard

deviation of 0.78. This suggests that while many believe road safety agencies are sufficiently resourced, there is a slightly higher level of disagreement or uncertainty. This could reflect perceived inconsistencies in how funds are allocated, utilized, or disbursed across agencies and regions.

Finally, the statement on Leadership capacity and competency negatively affecting motorcycle safety recorded the lowest mean score at 3.96, albeit still within the desired interpretive range. This confirms that respondents generally agree that institutional weaknesses are a barrier to safety, but the slightly lower score might reflect some optimism or belief in ongoing institutional reforms.

**Table 4: Descriptive results regarding Leadership capacity and competency**

| Statements | 1 (%) | 2 (%) | 3 (%) | 4 (%) | 5 (%) | Mean | SD |
|---|---|---|---|---|---|---|---|
| Management demonstrates high levels of technical expertise in governing urban transport systems. | 2.1 | 3.4 | 7.6 | 45.2 | 41.7 | 4.21 | 0.74 |
| There is efficient decision-making by leaders regarding motorcycle safety regulations | 1.3 | 4.6 | 6.2 | 49.7 | 38.2 | 4.2 | 0.72 |
| The leadership ensures strategic resource allocation (funds, personnel) to improve road safety. | 1.7 | 5.2 | 6.8 | 47.4 | 38.9 | 4.17 | 0.75 |
| Leaders utilize reliable data and analytics to make informed transport governance decision. | 2.2 | 4.9 | 7.5 | 46.3 | 39.1 | 4.15 | 0.76 |
| Agencies responsible for safety have the necessary human resource capacity to execute their mandates. | 3.1 | 5.8 | 9.6 | 44.9 | 36.6 | 4.04 | 0.78 |
| Institutional leaders prioritize continuous professional training for transport and safety personnel. | 3.7 | 6.2 | 10.1 | 44.1 | 35.9 | 4.0 | 0.78 |
| Leadership capacity and competency negatively affects systematic governance failures in motorcycle transport safety in Kenya's cities... | 4.1 | 6.6 | 10.3 | 42.7 | 36.3 | 3.96 | 0.78 |
| **Average** | | | | | | **4.1** | **0.76** |

***Note:*** *1 = Strongly disagree, 2= Disagree, 3= Neither agree nor disagree, 4= Agree and 5= Strongly agree, M = Mean, S D = Standard Deviation*

**Source: Survey Data, (2026)**

The findings from Table 5 study indicate a strong consensus among respondents on the need for strategic reforms to address Leadership capacity and competency in Kenya's motorcycle transport sector. The most widely supported measure, cited by 65.3% of respondents, is the need for improved inter-agency coordination, including the formation of joint task forces and

shared platforms for enforcement, policy implementation, and information exchange. Respondents believe that better coordination between traffic police, NTSA, county governments, and other stakeholders would reduce duplication of effort and close operational gaps.

A close second, supported by 63.6%, is the expansion of training and refresher programs for riders and enforcement officers. Many respondents recognize that ongoing training is vital for ensuring compliance with safety standards and fostering professionalism across the sector. Such programs can also adapt operators to new traffic laws, safety technologies, and behavioral expectations. Furthermore, 59.6% of respondents emphasized the importance of adequate data collection and analysis on motorcycle accidents and safety issues. They argued that data-driven planning is essential for identifying hotspots, allocating resources, and evaluating the impact of policy interventions.

Closely related, 57.3% of respondents called for adequate funding of road safety agencies, noting that underfunded institutions struggle to enforce safety laws, conduct outreach, and build long-term capacity. Improved budgetary support could ensure more staff, better equipment, and wider coverage. The same proportion (57.3%) acknowledged that institutional weaknesses directly affect systematic governance failures in motorcycle transport safety, reinforcing the urgency of structural reforms. This aligns with earlier findings showing gaps in policy coherence, enforcement consistency, and resource availability.

Finally, 55.3% of respondents recommended the formulation of a comprehensive national motorcycle transport policy. Such a policy would clarify institutional mandates, establish uniform safety standards, and clearly define roles and responsibilities among relevant agencies, thereby reducing overlaps and enhancing strategic coordination in motorcycle transport governance.

These quantitative findings are reinforced by insights from Key Informant Interviews (KIIs) conducted with transport officials, motorcycle operators, and safety regulators. On the issue of institutional coordination, a City Traffic Coordinator noted that *"there is poor coordination among agencies responsible for motorcycle safety, and limited resources mean enforcement is inconsistent."* This highlights how fragmented institutional arrangements contribute to weak and uneven enforcement of road safety regulations.

Further KIIs provided deeper insights into capacity-related issues, particularly regarding human resource adequacy and training effectiveness. Although survey findings indicated that human resource capacity is relatively adequate, key informants offered a more nuanced perspective, emphasizing limitations in training quality and continuity. A Traffic Officer observed that *"most riders receive only minimal training before they start operating, and refresher courses are rare, which affects their knowledge of changing traffic regulations."* Similarly, a Motorcycle Association Leader noted that *"even experienced riders sometimes lack up-to-date awareness of safety protocols, mainly due to the absence of ongoing education programs."* These views suggest that while personnel may be sufficient in number,

gaps in continuous training and professional development significantly constrain the effectiveness of motorcycle transport safety systems.

The survey revealed a neutral perception regarding the adequacy of data collection and analysis on motorcycle accidents for decision-making (M = 3.44, SD = 1.35). Key Informant Interview responses confirmed that existing data systems are often fragmented and underutilized. As noted by a National Transport and Safety Authority official, *"Data is collected, but it's rarely analyzed or shared across agencies. As a result, decisions are often made on assumptions rather than evidence."* This underscores the need for integrated and functional data management systems to support evidence-based decision-making and improve interventions in the motorcycle transport sector.

These findings are consistent with those of Odero et al. (2021), who established that weak enforcement, overlapping institutional mandates, and inadequate training of traffic officers significantly contribute to governance inefficiencies in motorcycle transport safety. Similarly, the African Development Bank (AfDB, 2019) report identified capacity constraints, funding limitations, and policy inconsistencies as major barriers to effective road safety management, particularly within the motorcycle transport sub-sector. These studies align with the current findings by highlighting systemic weaknesses in institutional capacity and data utilization.

In addition, Goretti and Wambugu (2020) found that poor implementation of training programs and weak coordination between the National Transport and Safety Authority (NTSA) and traffic police negatively affected road safety outcomes. Their findings further corroborate the present study's results, which indicate mixed perceptions regarding institutional coordination, training adequacy, and the overall effectiveness of data-driven decision-making systems. Collectively, the studies reinforce the conclusion that governance inefficiencies, particularly in data management and inter-agency coordination, remain a critical challenge in improving motorcycle transport safety outcomes.

**Table 5: Enhance leadership capacity in motorcycle transport sector**

| Measures can be introduced to | Frequency | % |
|---|---|---|
| Need to have a comprehensive National motorcycle transport policy | 166 | 55.3% |
| Expand training and refresher programs | 192 | 63.6% |
| Have inter-agency coordination, such as Joint task forces, shared platforms | 197 | 65.3% |
| Adequate data collection for safety | 180 | 59.6% |
| Adequate funding for road safety agencies | 173 | 57.3% |
| Institutional weakness affects motorcycle safety | 173 | 57.3% |

**Source: Survey Data (2026)**

### 4.5.6 Systematic Governance Failures in Motorcycle Transport Safety in Cities

The respondents were asked to rate their level of agreement with statements regarding the current state of systematic governance failures in motorcycle transport safety in urban Kenya. The data reflects strong consensus and overall agreement among respondents regarding motorcycle safety and reliability in Kenya. With all mean scores ranging between 3.86 and

4.15, and standard deviations below 0.8, the responses suggest a unified perception that progress is being made in several areas related to motorcycle transport.

A large proportion of respondents agreed that there has been a reduction in the number of motorcycle traffic crashes, with nearly 77% selecting "agree" or "strongly agree," resulting in a mean of 3.95. Similarly, when asked whether public complaints on road safety are being adequately addressed, responses reflected a moderate but clear confidence in government responsiveness, with a mean of 3.86. Respondents also affirmed that road safety systems and data related to motorcycles are accessible and reliable, yielding a mean score of 3.86, indicating general trust in information systems. The consistent use of helmets and protective gear by riders received a slightly higher agreement, with 3.94, suggesting improving safety practices in urban centers.

One of the strongest agreements was recorded on the effectiveness of existing safety interventions in reducing accidents, with a mean of 4.15. This suggests broad recognition of the impact of policy and programmatic measures. Similarly, the awareness of traffic laws among riders was positively perceived, with nearly 75% agreeing or strongly agreeing, resulting in a mean of 3.88.Lastly, motorcycles as a reliable mode of transport earned a mean score of 4.12, reflecting high confidence in their utility among road users. Overall, the revised data suggests a positive public perception of the state of motorcycle safety and reliability in Kenya, with minimal variation across responses. This indicates strong alignment in public opinion and potentially growing satisfaction with current road safety measures.

**Table 6: Descriptive Results on Systematic Governance Failures**

| Statements | 1 | 2 | 3 | 4 | 5 | M | SD |
|---|---|---|---|---|---|---|---|
| There is a high rate of unlicensed motorcycle operations due to systemic oversight gaps in the city. | 2.5% | 5.1% | 15.4% | 49.2% | 27.8% | 3.95 | 0.74 |
| Traffic enforcement is inconsistent, characterized by temporary "crackdowns" rather than a daily routine. | 3.0% | 6.3% | 18.5% | 46.6% | 25.6% | 3.86 | 0.77 |
| Traffic enforcement is inconsistent, characterized by temporary "crackdowns" rather than a daily routine.. | 3.4% | 7.8% | 16.0% | 45.1% | 27.7% | 3.86 | 0.76 |
| Overlapping mandates between national and county governments cause frequent governance failures. | 4.1% | 6.2% | 13.6% | 43.7% | 32.4% | 3.94 | 0.75 |
| A lack of real-time monitoring systems leads to a systemic breakdown in motorcycle traffic management. | 1.7% | 3.9% | 12.2% | 41.3% | 40.9% | 4.15 | 0.72 |
| Public distrust in the transport safety system has increased due to recurring institutional failures.. | 3.9% | 6.7% | 14.5% | 48.2% | 26.7% | 3.88 | 0.76 |
| 7. Systematic governance gaps have resulted in persistent and unaddressed risks to motorcycle safety. | 2.4% | 5.0% | 12.0% | 39.3% | 41.3% | 4.12 | 0.74 |
| **Average** | | | | | | **3.96** | **0.75** |

***Note:*** *1 = Strongly disagree, 2= Disagree, 3= Neither agree nor disagree, 4= Agree and 5= Strongly agree, M = Mean, S D = Standard Deviation*

**Source: Survey Data (2026)**

Survey shows strong public endorsement for the effectiveness of motorcycle safety interventions. This aligns with findings by Odero et al. (2016), who documented that targeted enforcement campaigns, speed regulation, and boda-boda rider training programs in Kenya have contributed to a measurable decline in motorcycle-related fatalities in pilot areas. Likewise, Tayebwa *et al*. (2021) in Uganda found that structured interventions, including reflective jackets and helmet distribution, significantly reduced accidents in high-risk towns.

The high mean score for motorcycles as a reliable mode of transport mirrors findings by Howe & Davis (2019), who noted that motorcycles provide crucial last-mile transport, especially in peri-urban and rural regions of Sub-Saharan Africa. They are valued for their affordability, manoeuvrability, and ability to access otherwise unreachable areas. The finding that many riders are aware of traffic laws aligns with research by Nanfuka (2019), which found that knowledge levels among riders in Nairobi and Kisumu were relatively high. However, as in this study, awareness did not always equate to compliance. The moderate agreement on helmet use corresponds with studies by Peden *et al*. (2013) and Chitere & Kibua (2004), who noted that while helmet ownership has increased due to sensitization efforts, actual consistent usage remains low due to discomfort, peer behaviour, and weak enforcement. While the survey suggests moderate agreement on crash reduction, NTSA Annual Report (2023) indicates that motorcycle related fatalities have continued to rise nationally, especially in densely populated counties like Nairobi, Kisumu, and Nakuru. This contradiction may reflect localized interventions showing success in certain areas, but not nationwide.

The low rating on addressing public complaints aligns with criticism from Human Rights Watch (2022) and Institute for Transportation and Development Policy (ITDP, 2021), who found that most road safety reporting systems are reactive, poorly funded, and inaccessible to low-income users. However, government reports often portray these systems as responsive, showing a disconnect between official narratives and public perception. Survey respondents doubted the reliability and accessibility of road safety data (mean = 3.02), in contrast to NTSA's (2022) assertion that data systems such as the Road Crash Data System (RCDS) are operational and regularly updated. However, Amoros et al. (2019) argue that there are gaps in data integrity due to underreporting, especially for non-fatal injuries and rural accidents.

This was corroborated by KII feedback. Informants mentioned that interventions such as reflective jackets, speed limits, and NTSA's awareness campaigns have yielded results in targeted areas. "Where stakeholders work together government, police, rider groups we've seen real change'' A county enforcement officer noted: They know the laws helmet use, carrying one passenger but enforcement is weak. Some flaunt the rules, knowing there are no real consequences. As one police informant described, "*The same flexibility that makes motorcycles reliable also makes them attractive for criminals. Regulation and traceability of riders are essential*". Moreover, the integration of KII data shows the importance of local context, informal systems, and stakeholder collaboration in achieving safer and more reliable motorcycle transport

Table 7 presents key measures that respondents identified as crucial in improving motorcycle safety in Kenyan cities. The findings revealed that the most supported measure was conducting workshops to train motorists on road safety, with 192 respondents (63.6%) endorsing this intervention. This highlights the widespread recognition of knowledge gaps among riders and the potential of structured training in mitigating accidents and enhancing safety culture. Closely following was assessing riders to distinguish the competent from the incompetent, supported by 185 respondents (61.3%). This points to a shared concern about unqualified riders operating motorcycles, which increases the risk of road mishaps. Regular assessments could help ensure only skilled and well-informed riders remain on the roads.

Involving local leaders in policy formulation was another highly supported measure, with 180 respondents (59.6%) emphasizing its importance. This suggests that inclusive and participatory policymaking is seen as a key step toward ensuring that safety policies reflect local realities and earn community support. A majority also supported the review of loans rendered to motorists (168 respondents, 55.6%), possibly reflecting concerns about unregulated credit facilities that may push untrained individuals into the sector without adequate safety considerations.

The review of the tedious licensing process was endorsed by 170 respondents (56.3%), indicating that while licensing is important, the current system may be a barrier to compliance, possibly pushing riders into informal or illegal operations. Lastly, erecting visible billboards was supported by 160 respondents (53.0%). This suggests that awareness through road signage and safety communication remains a relevant, though slightly less prioritized, measure for promoting safe motorcycle usage.

**Table 7: Addressing Governance Failures in Motorcycle Transport Safety**

| Measure to governance failures in motorcycle transport safety | Frequency | % |
|---|---|---|
| Review the loans rendered to the motorists | 168 | 55.6% |
| Assess riders to distinguish the competent from the incompetent | 185 | 61.3% |
| Workshops to train the motorists on road safety | 192 | 63.6% |
| Review the tedious licensing process | 170 | 56.3% |
| Erecting visible billboards | 160 | 53.0% |
| Involve the leaders while drafting the policies in the sector | 180 | 59.6% |

**Source: Survey Data (2026)**

**Correlation Analysis for Leadership capacity and competency**

Correlation analysis was conducted to test the strength of association between Leadership capacity and competency and systematic governance failures in motorcycle transport safety in Kenyan cities. In terms of the strength of relationship, the value of the correlation coefficient varies between +1 and -1. This was presented using the Pearson's Correlation Coefficient (Table 4.22). Table 4.16 shows that there is a positive and significant association between Leadership capacity and competency and systematic governance failures in motorcycle transport safety in Kenyan cities (r=0.602**, p=0.000). The r value of 0.602 indicates a value of greater than 0 which implies that Leadership capacity and competency as

a linear variable has a positive association with systematic governance failures in motorcycle transport safety in Kenyan cities.

This implies that an increase in the various aspects related to Leadership capacity and competency leads to an increase in the aspects related to systematic governance failures in motorcycle transport safety in Kenyan cities. The findings are in agreement with Essau and Ngonzi (2022) who revealed a significant relationship between training and competence, awareness about the use of motorcycle as a business, seminar and safety education and motorcycle safety. There were other concerns including complicated registration, tax compliance, motorcycle driver theft, careless driving, poor personal cleanliness, inadequate passenger safety gear, and traffic issues.

The report advocated clear mechanisms for motorcycle business operators to undertake their activities without interference by extraneous authorities, improved working conditions, and regular training and seminars for motorcycle drivers and operators. Chou *et al.* (2022) also revealed that safety activities have positive effects on motorcyclists' riding confidence, safety awareness, joy and comfort while riding, independence and freedom in daily life, and perspective-taking abilities. Altruistic motivation is suggested as the key factor to encourage motorcyclists' safe riding, highlighting the importance of building up traffic moral and expanding traffic safety culture across the country.

**Table 8: Correlation Matrix for Leadership Capacity and Competency and Systematic Governance Failures**

| Correlations | | Safety of motorcycle transport | Leadership capacity and competency |
|---|---|---|---|
| Safety of motorcycle transport | R | 1 | |
| | Sig. | | |
| Leadership capacity and competency | R | .602** | 1 |
| | Sig. | 0.000 | |

** Correlation is significant at the 0.01 level (2-tailed).

**Source: Survey Data (2026)**

**Regression Analysis for Leadership capacity and competency**

Regression analysis was conducted to explain variability, magnitude and extent of change in systematic governance failures in motorcycle transport safety in Kenyan cities with regard to the change in Leadership capacity and competency. Table 4.28 indicates that Leadership capacity and competency is an essential predictor of systematic governance failures in motorcycle transport safety in Kenyan cities. This has been evidenced by an R squared of 0.362 indicating that Leadership capacity and competency explains 36.2% of the outcomes of systematic governance failures in motorcycle transport safety in Kenyan cities. However, there are other variables/parameters and/or factors of systematic governance failures in

motorcycle transport safety in Kenyan cities covered by the remaining 63.8% which have not been explained by Leadership capacity and competency.

**Table 9: Model of Fitness for Leadership capacity and competency and Systematic Governance Failures**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .602a | 0.362 | 0.36 | 0.408 |

Dependent Variable: Safety of motorcycle transport
Predictors: Constant, Leadership capacity and competency

**Source: Survey Data (2026)**

Likewise, ANOVA was used to test for variations in means/averages using variance to discover if there was a statistically significant variation between Leadership capacity and competency and systematic governance failures in motorcycle transport safety in Kenyan cities (Table 4.29). The model was statistically significant as supported by a significant $F_{statistic} = 170.515 > F_{critical} = 3.94$ (1, 300). Given, that the p-value ($p = 0.000$) was less than 0.05, the results confirmed the statistical significance of the model.

**Table 10: ANOVA for Leadership capacity and Systematic Governance Failures**

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 28.337 | 1 | 28.337 | 170.515 | .000b |
| Residual | 49.855 | 300 | 0.166 | | |
| **Total** | 78.192 | 301 | | | |

Dependent Variable: Safety of motorcycle transport
Predictors: Constant, Leadership capacity and competency

**Source: Survey Data (2026)**

The regression coefficients (Table 4.30) further indicate that leadership capacity and competency has a positive and statistically significant effect on systematic governance failures in motorcycle transport safety in Kenyan cities ($\beta = 0.617$, $p = 0.000$). This implies that improvements in leadership capacity and competency are strongly associated with measurable reductions in governance failures within the motorcycle transport sector, while weaknesses in these areas exacerbate institutional inefficiencies, enforcement gaps, and safety risks. Practically, this finding suggests that strengthening leadership skills, decision-making capacity, and technical competence among transport authorities can significantly enhance coordination, enforcement consistency, and policy implementation, thereby improving overall road safety outcomes in urban areas.

These results are consistent with Essau and Ngonzi (2022), who established that training, competence development, awareness programs, and structured safety education significantly improve motorcycle safety outcomes. In the Kenyan urban context, the findings underscore the policy implication that investments in leadership development within transport institutions such as NTSA and county enforcement units are not merely administrative improvements but critical governance interventions. Strengthening leadership capacity is therefore essential for translating road safety policies into effective action, reducing systemic

failures, and ensuring that motorcycle transport systems operate in a safer, more coordinated, and professionally managed environment.

The report advocated clear mechanisms for motorcycle business operators to undertake their activities without interference by extraneous authorities, improved working conditions, and regular training and seminars for motorcycle drivers and operators. Chou *et al.* (2022) also revealed that safety activities have positive effects on motorcyclists' riding confidence, safety awareness, joy and comfort while riding, independence and freedom in daily life, and perspective-taking abilities. Altruistic motivation is suggested as the key factor to encourage motorcyclists' safe riding, highlighting the importance of building up traffic moral and expanding traffic safety culture across the country.

Pandey *et al.* (2022) indicated that modifying behaviors of road users; Road planning, construction and maintenance; and the governance of roads and traffic were the key concerns for road safety. All participants considered the primary cause of crashes to be the negligent behavior of the road users, suggesting that improved knowledge would influence their decisions. Yogo (2019) confirmed that the level of compliance among the riders was low; a fact that was attributed to lack of formal training. With regards to road safety, motorcycle ownership was significant to safety compliance as most of the motorcycle owners had received the prerequisite training.

The univariate theoretical model:  is thus represented into the following empirical model:

$$Y = 1.343 + 0.617X_1 + \varepsilon$$

Where;

Y = Safety of motorcycle transport users

$X_1$ = Leadership capacity and competency

ε= Error Term

**Table 11: Regression Coefficients for Leadership capacity and competency and Systematic Governance Failures**

| Variable | β | Std. Error | Beta | t | Sig. |
|---|---|---|---|---|---|
| Constant | 1.343 | 0.166 | | 8.097 | 0.000 |
| Leadership capacity and competency | 0.617 | 0.047 | 0.602 | 13.058 | 0.000 |

Dependent Variable: Safety of motorcycle transport

**Source: Survey Data (2026)**

## SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

### Conclusion of the Study

The study concludes that leadership capacity and competency has a positive and significant relationship with systematic governance failures in motorcycle transport safety in Kenyan cities. The study found that strategic resource allocation, technical expertise of management and decision-making efficiency have an effect on systematic governance failures in motorcycle transport safety in Kenyan cities. This implies that improvements in leadership

capacity and competency lead to improvements in governance outcomes and motorcycle transport safety in Kenyan cities.

**Recommendations of the Study**

The study recommends that the National Transport and Safety Authority (NTSA), Ministry of Roads and Transport, and County Transport Departments strengthen leadership capacity through structured, institution-specific training focused on strategic planning, coordination, and performance management to improve motorcycle transport safety governance. It further recommends the development of an integrated policy framework that clearly defines roles among NTSA, county governments, and the National Police Service to reduce mandate overlaps and enhance coordinated enforcement. In addition, formal inter-agency coordination units supported by shared digital systems and joint operations should be established to improve collaboration and accountability. The study also recommends continuous, competency-based training programs for traffic officers and safety personnel to enhance professionalism and enforcement effectiveness. Theoretically, the study contributes by reinforcing governance and institutional capacity perspectives in explaining transport safety failures, while policy-wise it informs reforms aimed at strengthening leadership, coordination, and human resource development for improved road safety outcomes in Kenya.

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