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Institutional Integrity and Systemic Governance Failures of Motorcycle Safety in Kenyan Cities

[1*]Ngeso Cosmas Jagongo, [2]Dr. Susan Were, [2]Dr. Kepha Ombui

[1]PhD Student, Jomo Kenyatta University of Agriculture and Technology

[2,3]Lecturer, Jomo Kenyatta University of Agriculture and Technology

https://orcid.org/0000-0001-7521-9910

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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 looked into the influence institutional integrity 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 institutional Integrity (β=0.292, 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 National Police Service (Traffic Department) should strengthen accountability among enforcement officers through performance monitoring systems, routine audits, and strict disciplinary measures to improve oversight in motorcycle transport safety in Kenyan cities. It further recommends that the National Transport and Safety Authority (NTSA), in collaboration with County Governments and the Ministry of Interior, should implement continuous and standardized training programs for traffic officers to enhance ethical conduct, enforcement efficiency, and road safety compliance.

Key Words: *Institutional Integrity, Systemic Governance, Motorcycle Safety*

Background of the Study

Road transport plays a vital role in Kenya's economic and social development by facilitating the movement of people, goods, and services. It connects rural areas to urban markets, enhances access to health and education services, and supports key sectors such as agriculture, tourism, and trade. With over 80% of freight and passenger transport in Kenya relying on roads, an efficient and well-functioning road traffic system is essential for national growth and regional integration (World Bank, 2022). However, as road usage continues to increase, particularly with the rapid expansion of informal transport systems such as motorcycle taxis (bodabodas), the need for effective road traffic governance has become increasingly urgent.

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. Institutional integrity ensures rules are applied impartially and reduces opportunities for corruption that compromise road safety outcomes (TI-Kenya, 2022).

In Kenya, motorcycle transport is commonly referred to as "bodaboda," a term originating from the early use of bicycles and motorcycles to transport people and goods across the Kenya–Uganda border at the Busia border point during the 1960s and 1970s (Muguro et al., 2022). Currently, motorcycle transport plays a significant role in providing both commercial and personal mobility in urban and rural areas. Motorcycles have gained popularity due to their affordability and accessibility, offering door-to-door services, unmatched mobility in congested traffic, and ease of parking. They also provide superior maneuverability and can access areas that are difficult for motor vehicles to reach, enabling faster travel times. However, these advantages are offset by increased road safety risks, contributing to rising fatalities from motorcycle crashes (NTSA, 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 governance challenges that affect systematic governance failures in motorcycle transport safety in Kenyan cities. It focused on how institutional capacity interact to influence safety outcomes.

General Objective

To institutional integrity influence systematic governance failures in motorcycle transport safety in Kenyan cities

Theoretical Review

Public Interest Theory

Public Interest Theory was first developed by Arthur Cecil Pigou in 1932 and explains regulation as a response to public demand for correcting market failures, inefficiencies, or inequitable outcomes. The theory assumes that regulation is designed to serve society as a whole rather than specific private or vested interests (Deegan, 2011). Richard (1974) further argues that regulation should reflect the interests of society in which it operates, ensuring fairness, accountability, and equity in economic systems. In this sense, regulators are expected to act as neutral agents working toward the common good rather than advancing individual or institutional gains.

The theory is based on the assumption that markets are inherently imperfect and often fail to allocate resources efficiently or equitably. Left unregulated, economic actors may prioritize profit maximization at the expense of broader societal welfare. As a result, government intervention becomes necessary to correct these inefficiencies and protect public welfare. For instance, governments regulate the banking sector to ensure financial stability, consumer protection, and equitable access to financial services. In such cases, regulation aims to ensure that resources are allocated in a socially optimal manner that benefits both individuals and society at large.

Public Interest Theory further posits that regulation of firms and economic actors contributes directly to the promotion of social welfare. This welfare is defined as the optimal allocation of scarce resources for both individual and collective goods and services within society (Becker, 2016). In many Western economies, market mechanisms play a central role in resource allocation; however, under certain conditions, markets alone may still fail to achieve optimal outcomes. Therefore, regulatory frameworks are introduced to complement market forces and ensure efficiency, fairness, and stability in economic systems.

A core principle of Public Interest Theory is the existence of market failures and the necessity of efficient government intervention to address them. Regulation is therefore justified as a mechanism for increasing overall social welfare. Over time, this principle has guided reforms in critical sectors such as electricity, gas, telecommunications, water and sanitation, postal

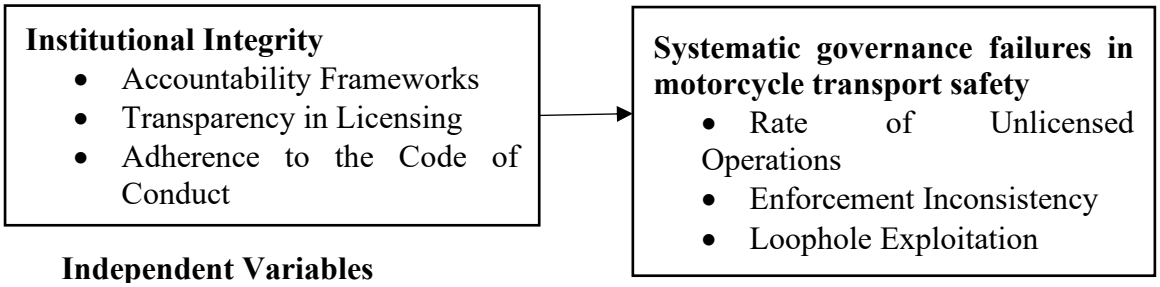
services, and transport systems including aviation and railways. These sectors provide essential services, and any disruption in their supply can severely affect economic activity and societal functioning, posing risks to public health, safety, and overall well-being (Beesley, Michael, & Littlechild, 2010).

Public Interest Theory is used in this study to explain how institutional integrity influences systemic governance failures of motorcycle transport safety in selected Kenyan cities. The theory holds that regulatory and institutional actions should prioritize the broader interests of society by correcting market failures, ensuring fairness, and protecting public safety. In the context of motorcycle transport, strong institutional integrity is expected to support impartial enforcement of traffic laws, enhance accountability, and ensure effective regulation of riders and operators. However, when institutional integrity is weak, issues such as corruption, regulatory capture, and selective enforcement emerge, undermining road safety outcomes and contributing to persistent accidents and fatalities.

Building on this perspective, the theory further explains how weak institutional capacity undermines the realization of the public interest in road traffic governance. When institutions lack adequate resources, technical capacity, and ethical standards, they are unable to consistently enforce regulations or implement effective safety interventions. This gap between policy intent and implementation leads to governance failures that disproportionately affect vulnerable road users, particularly boda boda riders and pedestrians. Therefore, Public Interest Theory provides a coherent framework for understanding how deficiencies in institutional integrity and capacity contribute to unsafe motorcycle transport systems in urban areas of Kenya.

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) further describe a conceptual framework as a graphical or diagrammatic representation of the relationships among variables in a study, enabling the researcher to clearly and quickly visualize the expected associations. In this study, the conceptual framework comprises one independent variable and one dependent variable.



Independent Variables **Dependent Variable**

Figure 1: Conceptual Framework

Institutional Integrity

Institutional integrity represents a critical governance challenge that undermines the effectiveness of road safety policies, particularly within motorcycle transport systems in urban areas of Kenya. It encompasses issues such as the abuse of public office for private gain and the inconsistent or selective application of traffic laws by enforcement agencies. These weaknesses distort regulatory processes and compromise fairness in law enforcement. As a result, a culture of impunity emerges, where violations are tolerated or inadequately addressed. This not only weakens compliance with traffic regulations but also erodes public trust in road safety governance institutions (Hope, 2017).

Accountability frameworks, as a sub-variable of institutional integrity, are central to explaining governance outcomes in this study. They refer to the formal and informal systems, mechanisms, and processes through which public officials and institutions are held responsible for their decisions, actions, and overall performance. In this sense, while institutional integrity reflects the moral and structural soundness of governance systems, accountability frameworks provide the practical mechanisms that enforce and sustain that integrity in practice. Without effective accountability systems, institutional integrity remains largely theoretical rather than operational, as there are limited consequences for misconduct, inefficiency, or non-compliance within governance structures.

Theoretically, accountability frameworks can be grounded in Principal–Agent Theory, which explains governance as a relationship in which public officials (agents) are expected to act in the best interests of citizens (principals) but may deviate due to information asymmetry and self-interest (Jensen & Meckling, 1976). Accountability mechanisms such as audits, oversight bodies, and reporting systems reduce this gap by monitoring and sanctioning agent behaviour. Ethical leadership is strengthened when leaders operate in systems that demand transparency and consequences for misconduct. Bovens (2007) further notes that accountability is essential for controlling abuse of power and enhancing institutional performance; its absence therefore contributes directly to governance failure.

In the context of motorcycle safety in Kenyan cities, weak accountability frameworks manifest in several ways. Enforcement agencies may fail to consistently apply traffic regulations, while instances of bribery and selective enforcement undermine the rule of law. At the policy level, limited transparency in budget allocation and expenditure reduces confidence in whether resources intended for road safety are effectively utilized. Furthermore, the lack of reliable data systems and public reporting on road safety outcomes limits both internal and external scrutiny. These gaps create a cycle in which poor performance is neither adequately detected nor corrected, leading to persistent safety challenges.

The second indicator is transparency in licensing, which refers to the openness, clarity, accessibility, and procedural fairness in the processes through which motorcycle operators are registered, trained, tested, and authorized to operate. In practical terms, it addresses the governance question of who gets licensed, under what conditions, and with what level of

scrutiny and verification. When these processes lack transparency, they become vulnerable to manipulation and contribute to systemic governance failures. The link between transparency in licensing and ethical leadership is both direct and consequential, as ethical leadership requires the establishment of systems that reduce opportunities for misconduct. Transparent licensing frameworks limit discretionary power and reduce corruption risks, while opaque systems enable unethical practices.

Thirdly, adherence to the code of conduct refers to the extent to which public officials, enforcement officers, and institutional actors consistently comply with established ethical standards, professional guidelines, and regulatory norms governing their behaviour. It reflects not only formal compliance with written rules but also the degree to which these ethical expectations are internalized and applied in day-to-day decision-making and enforcement practices. Unlike regulations that exist only on paper, adherence captures the lived behavioural reality within institutions, indicating whether ethical standards are actively upheld or routinely disregarded. High adherence strengthens institutional credibility, while weak adherence fosters misconduct and governance failure.

The relationship between adherence to a code of behavior and ethical leadership is direct and reinforcing. Ethical leadership sets the tone for acceptable conduct, but adherence reflects whether that tone translates into practice. Leaders who model ethical behavior and enforce codes consistently create environments where compliance is the norm. Conversely, when leaders tolerate or participate in misconduct, codes of behavior become symbolic documents with little practical impact. As argued by Treviño, Weaver, and Reynolds (2006), ethical leadership influences not only individual behavior but also the broader ethical climate within organizations.

In the Kenyan context, weak adherence to codes of behavior is a significant contributor to governance failures in motorcycle safety. Instances of bribery, selective enforcement of traffic regulations, and irregular licensing practices point to systemic non-compliance with established standards. These behaviors undermine the rule of law and create incentives for non-compliance among motorcycle operators. For example, if riders can avoid penalties through informal payments, the deterrent effect of enforcement is significantly weakened. This not only increases accident risk but also erodes public trust in institutions responsible for road safety.

Empirical Literature Review

Institutional Integrity

Corruption within traffic enforcement agencies undermines road safety governance in many African countries. According to Hope (2017), corruption reduces deterrence and increases road crash risks, particularly within urban transport systems where enforcement is weak or inconsistently applied. The study emphasizes that when enforcement officers accept bribes or fail to apply sanctions fairly, traffic regulations lose their preventive power, encouraging repeated violations and unsafe road use behaviours. This undermines institutional integrity

and contributes to higher accident rates, especially among vulnerable road users such as motorcycle operators and pedestrians in densely populated urban areas.

A study by Abdulai and Shifa (2022) investigated the relationship between institutional quality and corruption control in Sub-Saharan Africa. The purpose of the study was to analyze how rule enforcement, transparency, and bureaucratic effectiveness influence corruption prevalence. The findings revealed that countries with stronger institutional integrity experienced lower levels of corruption and improved service delivery efficiency. Conversely, weak institutions were characterized by poor enforcement of laws, rent-seeking behaviour, and ineffective oversight systems. The study emphasized that institutional integrity is a key determinant of governance performance and development outcomes.

In Tanzania, Olvera, Plat, and Pochet (2012) demonstrated that informal payments are commonly used by motorcyclists to avoid police checks and regulatory enforcement. The study highlighted that such practices are deeply embedded in everyday transport operations, where riders negotiate directly with enforcement officers to bypass penalties. This not only weakens institutional integrity but also erodes public trust in traffic governance systems. Consequently, non-compliance becomes widespread, reducing the overall effectiveness of road safety interventions.

In Kenya, the Kenya National Commission on Human Rights (2020) documented widespread bribery among traffic police officers, which enables non-compliant motorcycle riders to operate with relative impunity on the roads. This undermines the effectiveness of road safety enforcement and weakens public confidence in regulatory institutions. Key sub-variables such as bribery, selective enforcement of traffic laws, lack of accountability mechanisms, and tolerance of impunity among violators significantly diminish the legitimacy and credibility of road safety regulations. As a result, compliance with traffic laws is often based on fear of arbitrary punishment rather than trust in fair and consistent enforcement, thereby weakening overall governance of motorcycle transport safety.

A study by Muriuki and Kamau (2021) examined the role of institutional integrity in enhancing public sector accountability in Kenya. The purpose of the study was to assess how ethical standards, transparency, and enforcement mechanisms influence corruption levels in public institutions. Using a mixed-methods approach, the study found that weak institutional integrity was strongly associated with increased corruption, selective enforcement of regulations, and reduced public trust. The study concluded that strengthening accountability systems and ethical enforcement significantly improves governance outcomes and reduces opportunities for misconduct in public institutions.

A study by Nyaga and Wambua (2023) focused on institutional integrity and its influence on road safety governance in urban transport systems in Kenya. The purpose of the study was to determine how ethical enforcement practices and institutional accountability affect compliance with traffic regulations. The study found that weak institutional integrity contributed to inconsistent enforcement of traffic laws, corruption among enforcement officers, and increased road traffic violations. It further revealed that strengthening

institutional integrity improved compliance levels and reduced accident risks, particularly among vulnerable road users such as motorcycle operators and pedestrians.

A study by Chitere (2016) found that boda boda riders in Nairobi frequently evade traffic penalties through bribery, which significantly undermines traffic discipline and enforcement credibility. The study revealed that informal payments have become normalized within motorcycle transport operations, allowing riders to continue violating traffic laws without fear of legal consequences. This practice weakens the effectiveness of regulatory systems and contributes to disorderly road use, increasing the risk of road traffic accidents in urban settings.

RESEARCH METHODOLOGY

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. The study adopted a descriptive research design with both quantitative and qualitative approaches which was deemed appropriate because the main interest was to establish the relationship and analyze how the influential factors support matters under analysis (Siedlecki, 2020). The target population for this study comprised motorcycle transport operators (riders) operating in major Kenyan cities. These included both formal and informal riders who provide commercial passenger and goods transport services in the three major cities; Nairobi, Kisumu, Mombasa. According to the National Transport and Safety Authority (NTSA, 2023), there are approximately 266,049 registered motorcycle riders operating in the target Kenyan cities.

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)

Sampling Frame

The sample size was determined by the use of the Online Sample Size Calculator (Rahman *et al.,* 2022).

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

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

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.

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.

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 researcher carried out a pilot study to pre-test and validate the questionnaire and the interview guide. 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). Tests of assumptions (diagnostic tests) were done to check on the quality of the data. The tests of assumptions include test for normality, linearity, independence of errors and homoscedasticity. Testing for compliance with statistical assumptions of multivariate analysis provided a pillar for making statistical inferences and results. This ensured that the data was accurate, consistent with other information, uniformly entered, complete and arranged to simplify coding and tabulation. With data entry, the data collected was captured and stored in excel templates.

Descriptive analysis involved the use of frequencies in their absolute and relative forms (percentage). Mean and standard deviations were also used as measures of central tendencies and dispersion respectively.

As a predictive analysis, the multiple linear regression is used to explain the relationship between one continuous dependent variable and two or more independent variables. Multiple

regression was done at 95% confidence level and 5% level of significance. A multiple regression equation for predicting *boda boda* transport safety is expressed as follows:

$$\mathbf{Y = \beta_0 + \beta_1 X_1 + \mathscr{E}}$$

Where;

Y = Safety of motorcycle transport users

β_0 = Constant

X_1 = Institutional Integrity

β_1 = Regression Coefficient of variable

$\mathscr{E}$= Error Term

RESEARCH FINDINGS AND DISCUSSIONS

Descriptive Statistics

Institutional Integrity

The first objective was to assess the influence of Institutional Integrity on systematic governance failures in motorcycle transport safety in Kenyan cities. The respondents were asked to rate their agreement with the statements regarding Institutional Integrity affecting Systematic governance failures in motorcycle transport safety in Kenyan cities. They responded as it is presented in Table 3. The belief that there is a lack of accountability among enforcement officers was also strongly supported (mean 4.20), again with a low SD (0.89), suggesting a consistently held perception that oversight mechanisms for those tasked with enforcing road safety laws are weak or absent. Respondents appear to link enforcement quality not just to laws and training, but to institutional discipline and integrity. Perceptions regarding the training and resources available to traffic officers were slightly more moderate (mean 4.13, SD 0.95), indicating a shared concern that even where good laws exist, resource and capacity gaps among officers may be limiting effective implementation. This shows the need for investment in training, tools, and personnel development for enforcement units.

Corruption emerged again as a dominant theme. The statement that Institutional Integrity compromise systematic governance failures in motorcycle transport safety received the highest mean (4.35) with a relatively low SD (0.83), reflecting an almost unanimous perception that these factors are a major threat to road safety. This finding signal deep public frustration with how systemic corruption obstructs the safety of *boda boda* users and operators. In a related item, respondents also agreed that the nature and impact of corruption is understood by stakeholders (mean 4.15, SD 0.93). This suggests that the problem is not only visible but broadly recognized, which can be a powerful starting point for targeted reforms and policy advocacy.

Lastly, the belief that institutional integrity influences motorcycle safety outcomes in urban Kenya was affirmed (mean = 4.19, SD = 0.96). Although this item recorded the highest standard deviation, it still reflects strong agreement among respondents, reinforcing the link

between enforcement quality, corruption, and public safety outcomes. Overall, the revised results indicate a coherent and strongly aligned perception that while legal and regulatory frameworks exist, their effectiveness is undermined by biased enforcement, weak accountability, and systemic corruption. Although respondents acknowledge the importance of officer training and adequate resources, the dominant concern remains the integrity, fairness, and consistency of law enforcement practices. These findings imply that the motorcycle riders fairly perceive Institutional Integrity to be part of the issues which affect the safety of *Boda boda* transport in Kenyan cities. This is indicated by the overall mean of 3.68.

Table 3: Descriptive Results Regarding Institutional Integrity

Statements	1 (%)	2 (%)	3 (%)	4 (%)	5 (%)	Mean	SD
There are clear and effective accountability frameworks for those enforcing traffic laws.	2.1	3.8	8.0	45.2	40.9	4.19	0.89
The licensing process for motorcycle riders is transparent and free from manipulation.	1.2	2.1	7.5	48.3	40.9	4.26	0.78
Enforcement officers strictly adhere to a professional code of conduct without favoritism.	2.4	3.5	6.8	46.1	41.2	4.20	0.89
Internal institutional mechanisms are effective in identifying and punishing rent-seeking behavior.	3.0	4.1	9.2	44.0	39.7	4.13	0.95
Sanctions for unethical behavior within transport institutions are applied consistently and fairly.	1.3	3.3	5.7	38.4	51.3	4.35	0.83
The information regarding safety regulations and fees is made openly accessible to all riders and stakeholders	2.2	5.5	7.1	45.8	39.4	4.15	0.93
High levels of institutional honesty have significantly increased public trust in transport governance.	3.4	4.0	6.2	42.7	43.7	4.19	0.96
Average						**4.21**	**0.89**

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)

Findings from Table 3 reveal that the most widely supported intervention to address Institutional Integrity in the motorcycle transport sector is strengthening accountability and oversight mechanisms, cited by 28.5% of respondents. This includes transparent systems for monitoring traffic officers, regulators, and licensing processes. The second most popular measure, supported by 21.2% of respondents, is digitizing enforcement processes, including e-ticketing, digital licenses, and automated surveillance systems. This would reduce face-to-face interactions, minimizing opportunities for bribery and discretionary decision-making.

A significant number of respondents (17.2%) also recommend improving salaries and working conditions for enforcement officers as a way to reduce the temptation to engage in corrupt practices. They believe better compensation and benefits can enhance professionalism and commitment. In addition, 11.9% of respondents advocate for regular audits and surprise inspections of enforcement units and regulatory bodies. These could help uncover irregularities and reinforce institutional discipline. Meanwhile, 10.6% support stricter penalties for both corrupt officials and traffic offenders, including permanent dismissal and criminal charges, to act as deterrents. Less frequently mentioned, but still relevant, are measures such as public awareness campaigns (6.6%) and anonymous reporting and whistleblower protections (4.0%), which would empower citizens to expose malpractice without fear of retaliation.

Table 4: Measures to Address Institutional Integrity

Proposed Measure	Frequency	%
Strengthen accountability and oversight mechanisms	86	28.5%
Increase salaries and improve the welfare of enforcement officers	52	17.2%
Digitize enforcement processes to reduce human interaction	64	21.2%
Conduct regular audits and inspections	36	11.9%
Enforce stricter penalties for corrupt officers and offenders	32	10.6%
Promote public awareness and civic education	20	6.6%
Establish anonymous reporting and whistleblower protection systems	12	4.0%
Total	**302**	**100.0%**

Source: Survey Data (2026)

The first objective of the study sought to assess the influence of Institutional Integrity on systematic governance failures in motorcycle transport safety in urban settings in Kenya. The results presented in Table 4 indicate a strong consensus among respondents that Institutional Integrity significantly compromise systematic governance failures in motorcycle transport safety. The findings show high levels of agreement (mean scores above 3.5 out of 5) with several corruption- and enforcement-related issues, including biased law enforcement, lack of accountability mechanisms, bribery, and compromised safety outcomes.

Several previous studies support these findings, underscoring the widespread nature and detrimental effects of Institutional Integrity in the motorcycle transport sector: Howe and Davis (2003), in a study on motorcycle taxis in sub-Saharan Africa, noted that weak enforcement of transport laws and widespread corruption among traffic police led to unsafe road use practices. They observed that informal payments and selective enforcement were major obstacles to safety and sector regulation. Mitullah and Makajuma (2015), in their study on urban mobility in Nairobi, also highlighted corruption and poor institutional capacity as key challenges. The researchers argued that enforcement agencies were often under-

resourced, and where resources existed, misuse and lack of accountability diluted enforcement efforts.

Ogwoka (2020) found that bribery among *Boda boda* riders and traffic police in Kisumu and Nairobi enabled unqualified and underage riders to operate motorcycles, contributing to frequent road accidents. His findings align with the current study's result that 61.6% of respondents acknowledged the prevalence of bribery and informal payments. World Bank (2016) recognized that systemic corruption within traffic enforcement institutions in developing countries, including Kenya, compromised road safety. They recommended reforms focused on digital monitoring, officer training, and citizen engagement, closely aligned with the proposed measures in this study.

However, there are also studies that offer more nuanced or differing perspectives: Khayesi (2004) emphasized that while Institutional Integrity exist, the lack of infrastructure and safety education were more significant contributors to motorcycle accidents than enforcement issues alone. He argued that focusing solely on corruption without addressing road design and rider behavior might produce limited improvements.

Goretti (2021) argued that in smaller towns, motorcycle safety was compromised more by cultural attitudes and low risk perception than by formal corruption. According to this view, even with strong enforcement structures, ingrained behaviors (like non-helmet use) often persist. Ndunda and Omwenga (2017) found that while corruption existed, improved training, sensitization, and community policing were more effective in promoting safety than trying to overhaul enforcement agencies. Their study suggested collaborative interventions rather than focusing solely on institutional weaknesses.

Key Informant Interviews (KIIs) provided deeper insights into the operational realities underlying the survey findings. Respondents noted both improvements and persistent challenges in enforcement practices. One KII respondent observed, *"There used to be rampant corruption at traffic checkpoints, but now many riders report reduced harassment and more accountability from officers."* However, several traffic police officers and county government officials still acknowledged that *"enforcement is often arbitrary and dependent on individual officer discretion,"* resulting in inconsistencies and opportunities for exploitation by both riders and enforcers.

Institutional weaknesses in record-keeping were also highlighted. A county government official stated, *"There are no digital records of most traffic offenses. This makes it easier for offenders to negotiate bribes or for officers to avoid formal disciplinary action. A lot happens off the books."* This points to gaps in transparency and accountability systems that continue to undermine enforcement integrity in motorcycle transport governance.

Motorcycle association leaders further emphasized the normalization of informal payments, with one noting, *"Many of our members admit to giving daily 'chai' to avoid being arrested for minor offenses. It has become a hidden cost of doing business."* On stakeholder awareness, a county government official remarked, *"There is a disconnect. Riders know there's corruption, but not all policymakers accept how deeply it affects road safety. Some*

think it's just a behavioral issue." These qualitative insights corroborate the survey findings by reinforcing issues of biased enforcement, weak accountability, and the normalization of bribery, while also revealing a lack of shared understanding among stakeholders regarding the systemic impact of corruption on road safety outcomes.

Correlation Analysis

Correlation Analysis for Institutional Integrity

Correlation analysis was conducted to test the strength of association between Institutional Integrity 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. Table 5 shows that there is a positive and significant association between Institutional Integrity and systematic governance failures in motorcycle transport safety in Kenyan cities (r=0.650**, p=0.000). The r value of 0.650 indicates a value of greater than 0 which implies that Institutional Integrity 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 Institutional Integrity 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 Nyasio (2021) who further revealed that, depending on how actors in the motorcycle industry framed their goals, costs, corruption, bureaucracy, mistrust, ignorance, comfort, hygiene, expectations, security, culture, religion, exploration, misunderstanding, carelessness, conflict of laws and political interference determines compliance with the regulations. Chen *et al.* (2021) concludes that the effect of the motorcycle bans on reducing the number of traffic accident deaths is significant, and their impact does not decrease over time due to the diversity of policies.

Table 5: Correlation Matrix and Institutional Integrity and Systematic Governance Failures

Correlations		Safety of motorcycle transport	Institutional Integrity
Safety of motorcycle transport	R	1	
	Sig.		
Institutional Integrity	R	.650**	1
	Sig.	0.000	

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

Source: Survey Data (2026)

Regression Analysis

Regression Analysis for Institutional Integrity

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 Institutional Integrity. Table 6 indicates that Institutional Integrity is a good predictor of systematic governance failures in motorcycle transport safety in Kenyan cities. This has been evidenced by an R squared of 0.422 indicating that Institutional Integrity explains 42.2% 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 57.8% which have not been explained by Institutional Integrity.

Table 6: Model of Fitness for Institutional Integrity and Systematic Governance Failures

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.650a	0.422	0.42	0.388

Dependent Variable: Safety of motorcycle transport
Predictors: Constant, Institutional Integrity

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 Institutional Integrity and systematic governance failures in motorcycle transport safety in Kenyan cities (Table 7). The model was statistically significant as supported by a significant $F_{statistic} = 219.348 > F_{critical} = 3.94$ (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 7: ANOVA for Institutional Integrity and Systematic Governance Failures

	Sum of Squares	df	Mean Square	F	Sig.
Regression	33.025	1	33.025	219.348	.000b
Residual	45.168	300	0.151		
Total	78.192	301			

Dependent Variable: Safety of motorcycle transport
Predictors: Constant, Institutional Integrity

Source: Survey Data (2026)

The regression coefficients (Table 8) indicate that Institutional Integrity has a positive and statistically significant effect on systematic governance failures in motorcycle transport safety in Kenyan cities ($\beta = 0.593$, $p = 0.000$). This implies that improvements in institutional integrity—such as reduced corruption, enhanced accountability, and consistent enforcement of regulations—are associated with a substantial reduction in governance failures within the motorcycle transport system. Conversely, weaknesses in institutional integrity intensify enforcement bias, weaken compliance, and create opportunities for corruption, thereby undermining road safety outcomes. In practical terms, the finding highlights that strengthening institutional integrity is central to restoring public trust, improving enforcement fairness, and ensuring that traffic regulations are applied consistently across all urban transport users.

These findings are consistent with Nyasio (2021), who established that compliance within the motorcycle transport sector is shaped by how actors perceive and respond to governance conditions such as corruption, bureaucracy, mistrust, and political interference. In the Kenyan urban context, the results imply that institutional integrity is not only a structural issue but also a behavioral one, influencing how both riders and enforcement officers interpret and apply traffic regulations. Therefore, improving institutional integrity requires deliberate policy actions such as digitizing enforcement systems, strengthening anti-corruption mechanisms, and enhancing transparency in decision-making processes to reduce discretionary abuse and promote fair and predictable enforcement of motorcycle transport regulations.

Chen *et al.* (2021) concludes that the effect of the motorcycle bans on reducing the number of traffic accident deaths is significant, and their impact does not decrease over time due to the diversity of policies. Further, the mechanism analysis shows that the motorcycle bans have not only reduced the number of motorcycles and thus may improve the traffic safety but also diminished the traffic accidents by reducing the fatality rate. Liu and Lai (2020) demonstrated that the impact on motorcyclists' acceptance of electric motorcycles by considering their perceptions of environmental policy, pollution reduction, the saving of energy, and driving performance; the results can lead to valuable discussions on the environment–technology–society ecosystem in further studies.

Issa *et al.* (2023) showed that actors have implemented a variety of actions through their various institutions aimed at lowering the crime threat in the context of motorcycle taxi riding activities. Wang *et al.* (2023) also indicated that, if the government regulates the riders, then both enterprises will choose the self-discipline strategy. It was also found that the self-discipline behavior of bike-sharing enterprises is related to the government regulatory probability, the cost of self-discipline, the probability of being reported and the penalties. Interestingly, the cost of government regulation will not affect the regulation probability of government.

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

$$Y = 1.308 + 0.593X_2 + \varepsilon$$

Where; Y = Safety of motorcycle transport users, X_2 = Institutional Integrity

ε = Error Term

Table 8: Regression Coefficients for Institutional Integrity and Systematic Governance Failures

Variable	β	Std. Error	Beta	t	Sig.
Constant	1.308	0.149		8.789	0.000
Institutional Integrity	0.593	0.04	0.65	14.81	0.000

Dependent Variable: Safety of motorcycle transport

Source: Survey Data (2026)

CONCLUSIONS AND RECOMMENDATIONS

Conclusion of the Study

The study concludes that institutional integrity has a positive and significant relationship with systematic governance failures in motorcycle transport safety in Kenyan cities. The study established that accountability frameworks, transparency in licensing and adherence to codes of conduct have an effect on systematic governance failures in motorcycle transport safety in Kenyan cities. This shows that improvements in institutional integrity lead to improvements in governance effectiveness and road safety outcomes in Kenyan cities.

Recommendations of the Study

The study recommends that the National Police Service (Traffic Department) should strengthen accountability among enforcement officers through performance monitoring systems, routine audits, and strict disciplinary measures to improve oversight in motorcycle transport safety in Kenyan cities. It further recommends that the National Transport and Safety Authority (NTSA), in collaboration with County Governments and the Ministry of Interior, should implement continuous and standardized training programs for traffic officers to enhance ethical conduct, enforcement efficiency, and road safety compliance. In addition, NTSA and the Ethics and Anti-Corruption Commission (EACC) should enhance institutional integrity by digitizing licensing and enforcement processes, improving transparency, and enforcing strict adherence to codes of conduct to reduce corruption. The study also recommends confidential whistleblowing and feedback mechanisms to address malpractice and improve public trust. Theoretically, the study reinforces institutional governance theory, while policy-wise it supports reforms aimed at strengthening accountability, integrity, and enforcement effectiveness in road safety governance in Kenya.

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