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AN ANALYSIS OF HOW POLITICS STREAM AFFECTS THE IMPLEMENTATION OF ROAD SAFETY POLICY MEASURES IN NYANZA REGION, KENYA

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ABSTRACT

A large number of road safety policies has been formulated and attempted to be implemented in Kenya to try and reduce road fatality and injury but still the high rates of traffic morbidities appear to be on the raise in Nyanza region. Due to the concerns the study of analyzing how politics streams affect implementation of road safety policy measures in Nyanza region in Kenya implementation was conducted to look for solutions. The study was backed with Multiple Streams Framework and Punctuated Equilibrium Model. The research used a descriptive survey and explanatory design with pragmatic research philosophy point of view while embracing mixed research approaches. The study utilized census, simple random sampling, and stratified random sampling, purposive sampling, and systematic random sampling techniques in drawing a representative sample. The sample size of the study was 347 of target population. The study interviewed 6 traffic base commanders, 2 county Matatu Owners' Association and 2 NTSA county directors. The study also employed both participatory and non-participatory observation to collect supplementary data. The reliability of the study instrument was assessed using Cronbach's Alpha, while the validity was assessed using factor analysis and expert opinion. Data was analysed using descriptive and inferential statistical methods. Quantitative data was examined by means of simple regression approaches. Based on the derivatives from the objectives, theme analysis was used to assess qualitative data. The study then presented quantitative data using tables and figures, while qualitative data was reported in continuous prose. The findings established that the problem Streams Framework influenced the implementation of motorway safety policy measures among matatu operators to a moderate extent. The study showed that there was a statistically significant relationship between the problem Streams Framework and implementation of road safety policies. The study establishes that the government agencies need to digitalize data on road accidents and recommends a collaborative approach between government agencies responsible for the implementation of road safety policy measures. This study concluded that problem Streams affects the implementation of road safety policy measures, and so there is need for all policy actors to take into account all streams whenever they intend to initiate the enactment of road safety measures.

Key Words: *Problem Streams, Policies, Implementation of safety measures*

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INTRODUCTION

International organizations as well as countries have come up with a range of road safety programs to address the soaring figure of road accidents, death toll and injuries around the world (Nduhura, Alinda, Mulindwa, Wanume, & Settumba, 2021). However, global trends reveal implementation gaps for such measures (Hudson, Hunter, & Peckham, 2019), especially at the later stages of implementation (Heydari, Hickford, McIlroy, Turner, & Bachani, 2019). Public policies as Begari (2021), quoting Dye (1972), accurately states are "whatever a government decides to do or not to do." Numerous measures for improving road safety have been developed, but the problem exists at the execution level. This study attempted to figure out why implementation fails. Ideally, effective implementation of road safety policy measures occurs once problem, policy, and politics streams converge (Hawkins, & McCambridge, 2020).

Though many policy studies have made the implicit assumption that a policy will be implemented once it has been developed (Howlett, 2019), this view is incorrect for policies created in most developing nations where bureaucracies hinder their execution and governments tend to create broad, sweeping policies (Zahariadis and Exadaktylos, 2016). When it comes to politics stream component, political priorities and the environment for the implementation of policies are frequently obscured by interest groups, political parties, and those affected by the policies (Jamroz, Budzyński, Romanowska, Żukowska, Oskarbski, & Kustra, 2019). A study of low- and middle-income nations, Campos, and Reich (2019) identified six key policy actors that are likely to affect implementation: beneficiary politics, bureaucratic politics, budget politics, leadership politics, interest group politics, and external actor politics. Therefore, people in charge of implementation can more successfully put policy into practice once they understand the political dynamics associated with implementation. The commitment of political actors in the implementation of road safety policies is particularly pronounced in Europe under the Vision Zero philosophy (McInerney, 2022). For instance, there are significant differences between the approach of implementing road safety measures in Addis Ababa and that of the Swedish Vision Zero procedure in terms of how responsibilities are assigned and how concerns regarding road safety are articulated (Abebe, 2022). As a result, Europe is a global leader in reducing road traffic deaths (European Commission, 2019). In the case of low- and middle-income countries, poor political goodwill is associated with about 93% of road traffic deaths (Safarpour, & Mohammadi, 2020). Moreover, in response to issues of road safety in Kenya, the government and sector stakeholders have created policies and implemented intervention measures (Olemo, 2016). Some of these measures include, first, the Integrated National Transport Policy 2009, which called for improved access to safe and secure road transportation (Isaac, 2019); second, the National Road Safety Council's formation, which developed a five-year National Road Safety Action Plan (2009–2014) with the goal of developing a system to halve the number of traffic fatalities by 2014 in response to the United Nations Decade of Action for Road Safety (2011–2020), according to Kabue (2018); as a result, the NTSA was set up in 2012 with the mandate to coordinate the activities of the major road transport departments and contribute to reducing road fatality rates from traffic accidents (Muchoki, 2020). Since then, the NTSA has implemented legal, regulatory, and institutional reforms in the management of Public Service Vehicles, including registration of SACCOs for collective responsibility, reforms in driver education, testing, and licensing, interventions in speed limits and speed governors, interventions in drunk driving, projects to improve pedestrian safety, public awareness campaigns, and the application of ICT solutions (Gachanja & Mose 2017). However, in Kenya gaps exist in the execution of these programs, as a result of which traffic accidents persist in the country (Lamont & Lee, 2015).

In Kenya, counties also participate in the implementation of road safety policy measures. Kisii County has enacted Kisii County Transport Act 2014. Kisumu County has ratified the Kisumu County Transport Act 2019, with the aim of reducing road traffic accidents (Kenya Law, 2021). Despite the existence of these local and national efforts aimed at addressing the road safety threat, statistics continue to show that mortality and morbidity rates in Kisii and Kisumu counties are on the rising trajectory. Osoro, Ng'ang'a, and Yitambe (2015) reveal that since 2001, Kisii County has seen an average annual increase of 7.5 percent in deaths and a 47

percent increase in serious injuries from 257 road accidents occurring yearly, while Oloo (2019) shows that since 2013, Kisumu County has experienced a notable rise in the number of accidents. NTSA (2018) reported that in the year 2018, Kisumu County led with about 50% of the region's road deaths reported in South Western Kenya.

LITERATURE REVIEW

Political Stream and Implementation of Road Safety Policy Measures

Yusuf, Neill, John, Ash, and Mahar (2016) conducted a study in Virginia, USA, using a political stream perspective to examine how politics affected sea level rise's existence on the policy agenda. The research used a desk-top qualitative approach, which included record analysis and a detailed examination of empirical studies. The study discovered that partisanship was the biggest hindrance to the rising sea's problem making it on the policy agenda. Yusuf, Neill, John, Ash, and Mahar (2016) examined the impact of political streams on climate change agenda setting, but the current research examined Political Streams on implementation of road safety policy measures.

Harris and Morris (2017) used multiple stream approach to evaluate outcome of marijuana movement on political affairs at the grass-roots level in Texas, USA. Despite the presence of a well-organized campaign, the study found that political power had only a slight effect on marijuana policy. Conservative political power, re-election fears and fear of primary challenges, the fear of political retaliation, resistance among law enforcement organizations, and the general impression that existed within legislatures all contributed to the minimal influence. Harris and Morris (2017) conducted their study on Marijuana policy in the United States, an advanced democracy, but the current study examined road safety in Kenya.

Helfer (2016) conducted research on the political stream, media, and agenda setting in Switzerland. The study used an experimental design with a quantitative approach, with the main informants interviewed in addition to an online survey. According to the results, when the media pays more attention to an issue, politics will follow. Factors such as the type of media coverage, the political agenda, and the election cycle all play a part. The current research examined effect of Political Stream on implementation of road safety initiatives using a descriptive survey approach with diverse research approaches, whereas Heifer's (2016) paper clearly focused on agenda setting through an experimental design with a quantitative approach.

In Australia, Whiteford, Meurk, Carstensen, Hall, Hill, and Head (2016) studied how teenage mental health found its way on Australia's Federal Policy Agenda for 2011 from political standpoint in Australia. A thorough review of appropriate literature was done. Results revealed that socio-political factors, such as political pressure and the availability of advocacy from high-profile and prominent policy entrepreneurs, shaped the formulation of youth mental health initiatives. The study relied solely on a desk-top qualitative analysis method to collect data, a methodological gap that this survey endeavored to plug by using a mixed research method approach.

Odonkor, Mitsotsou, and Dei (2020) undertook a research project in Ghana, evaluating the impact policy stream on the formulation of road safety policies in Africa, specifically in Ghana. The study applied Qualitative Research Methodology. Purposeful sampling was used to identify study's participants. Data was gathered through structured interviews. The findings showed that despite six people dying on the road every day, road safety was not considered as a policy issue due to a lack of political priority and prominent policy entrepreneurs. Whereas Odonkor, Mitsotsou and Dei sought to determine how problem streams relate to the development of national road safety policy, this inquiry tried to find out the impact of political stream on enactment of road safety measures.

Kitheka (2014) did a research to find out the effects of amended traffic regulations on traffic accidents in Nairobi. This study applied mixed model design. The study also used quota sampling technique to identify

respondents who answered the questionnaires. The study employed Institutional Theory and Farralle's Human Factors Theory and revealed that though traffic rules were formulated to address road carnage, the implementation of traffic rules faced disparities due to lack of political goodwill. Kitheka (2014) applied Institutional Theory and Farralle's Human Factors Theory to determine policy implementation, whereas the current study relied on Multiple Stream Framework Model, Game Theory, Policy Network Model and Punctuated Equilibrium Model.

Multiple Streams Model

This framework was propagated by John W. K. in 1984.The model departs from the traditional Lasswell's (1956) proposition that the policy process has to follow distinct and linear stages (Cattaneo, 2018; Dunn, 2018). The Multiple Streams Model provides a rational explanation on how national government policies are formulated and implemented under the conditions of ambiguity (Birkland, 2019). Ruvalcaba, Criado, and Gil-Garcia (2020) state that Multiple Streams Framework acknowledges that in any policy system, there are three streams (problem, policy and political) that are parallel but related sets of dynamic activities.

Despite criticism from Exworthy and Powell (2004) who argue that Multiple Streams Framework is applicable more in the United States, some European and Asian political systems, it is a universal theory which can be applied in many policy subsystems globally, according to Cairney and Jones (2016). Ridde (2009) applied this framework to explore implementation of policies in African. Kassam and Merali (2019) adopted the model to address injuries caused by vehicle traffic in low- and middle-income economies. Fowler (2019) examined problems, politics, and policy streams in the implementation of national environmental policy in the US.

Multiple Streams Model was crucial to the current study in explaining the concept implementation of road safety in light of Multiple Streams Model on Kenya's context, especially in Kisii and Kisumu counties. The theory provided insights on how road safety policy emanates through a myriad of activities and finds itself on the government's agenda, translates into policy and is eventually implemented.

METHODOLOGY

Research Design: Mayer (2015, quoting Saunders *et al*. 2009) argues that there is no research design that is flawless and that can exist independently. He contends that research designs complement each other and this allows triangulation and thus enhances the legitimacy of the study results. Therefore, though this study mainly adopted descriptive survey design, it also employed explanatory design. Descriptive survey design facilitated the study to give accurate aspects, happenings, and circumstances on the variables (Njoroge, 2015). On its part, explanatory study design provided cause-effect connections between variables. This makes clear the significance, strength and direction of a link between independent and dependent variables (Kimolo, 2022, citing Cooper & Schindler, 2008). Besides, though Rist (2000) recommends only qualitative study approaches for assessing public policy implementation, this study engaged mixed methodologies to describe the correlation between problem Stream Framework and the implementation of road safety policy measures. Applying a mixed method approach allowed triangulation of research approaches (Reyad, Madbouly, Chinnasamy, Badawi, and Hamdan, 2020; Maarouf, 2019).

Target Population: The target population comprises a whole collection of individuals (Mugenda & Mugenda, 2003) who share certain similar observable characteristics. This research targeted county NTSA directors, traffic police base commandants, county matatu owners' associations, matatu Sacco leaders, matatu drivers, and PSV conductors in Kisii and Kisumu counties. This population was assumed to have the necessary knowledge to provide the correct information and successfully meet the study objectives. The tabulated sample was as shown below.

Table 1: Target Population

Road Safety Policy Implementers	County		Population
	Kisii	Kisumu	
NTSA County Directors	1	1	2
Traffic Police Base Commandants	2	6	8
Matatu Owners Association Chairs	1	1	2
Matatu Sacco Leaders	115	153	268
PSV Drivers	540	720	1,260
PSV Conductors	224	298	523

Sources: Regional Traffic Commandant (2020), Njagi (2019), NTSA (2020), KNBS (2019)

Sampling Techniques: This analysis sought to use census of all the 12 key respondents to determine a sample (County NTSA directors, traffic police base commandants, and county Matatu owners' association chairpersons) because each had crucial information regarding application of road safety policy measures obtained through responsibilities bestowed upon them. The Sacco management leaders were identified using purposive sampling technique, thus giving an opportunity to address gaps that could be identified from data collected from drivers and conductors. Systematic Random Sampling was used to identify matatu drivers and PSV conductors (this study assumed that each Sacco had a comprehensive separate list of their drivers and conductors). This was done by selecting the Kth case from the complete list of matatu drivers and that of conductors. This technique starts by randomly choosing the first Kth case on the list before systematically choosing the rest. Kisii and Kisumu counties were identified through purposive sampling.

Sample Size: The sample size for this study was 347. As Lakens (2022) points out, sample size comprises a portion of the populace to which the survey aimed to take a broad view conclusion. Sample size for matatu Sacco leaders, matatu drivers, and PSV conductors, was sought by means of Yamane's (1967) formula. Yamane (1967): $n = \frac{N}{1+Ne^2}$ Where: N – represents the target population; n – represents the sample size; e- is the margin of error (0.05).

Thus, $n = \frac{2050}{1+2050(0.05^2)}$ =335.

The study distributed the sample proportionately among various categories as indicated on Table 2 below in order to achieve proportional representation in data collection. The study employed Kim and Elam (2005) Model which he adopted from Cochran (1977).

$n_1 = \frac{N_1}{N_0} xs$ **Where**: n_1 - Proportionate sample size from the stratum, N_1 - Target Population from the stratum, N_0 - Total Target Population, *s*- Sample size from stratum.

Table 2: Sample Size

Strata	Category	Target Population	Sample Size
Kisii County	Sacco leaders	115	19
	PSV Drivers	540	88
	PSV conductors	224	37
Subtotal		**879**	
Kisumu County	Sacco leaders	153	25
	PSV Drivers	720	117
	PSV conductors	298	49
Subtotal		**1 171**	
Grand Total		**2050**	**335**

Source: Field Data (2021)

In addition, this study purposively identified 12 respondents who were picked through census as indicated earlier in Table 2, hence making total sample to be 347.

Research Instruments: Even though Yin (1982) believes that only qualitative methods are suitable for analyzing public policies, using a variety of methods of data collection from respondents ensures there are no breaks in data collected (Creswell & Creswell, 2017). This assertion corresponds with Flick (2014) who maintains that the use of a variety of methods of data collection promotes triangulation that enables instruments to supplement each other. To collect quantitative and qualitative data, this study used four tools: self-administered questionnaires, interview guides, document analysis and observation checklist.

Data Collection Techniques: Data collection, according to Putra, Tresna, Barkah, and Chan (2021), is the act of compiling and quantifying information about the variables under study in a conventional, orderly way in order to address the research questions or test the hypotheses and draw conclusions. Three trained research assistants were engaged in data collection, especially in the collection of the questionnaires. The researcher made arrangements with key informants to be interviewed when they were available. The questionnaires were administered and picked up immediately because of the nature of the work of the respondents. However, some were dropped and picked later after the respondents completed administering them. All responses were received in the month of December 2021, and the data was immediately edited and organized in readiness for analysis.

Data Analysis and Presentation: Data was certified for accuracy before being coded into the Statistical Package for Social Sciences (SPSS) version 25 software code book. SPSS was considered an acceptable tool for this study due to its ability to analyze and manipulate exceedingly complex data and its design for both interactive and non-interactive use (Denis, 2018). The analysis of quantitative data followed a logical sequence and was analyzed using descriptive statistics such as percentage, mean, standard deviation, and frequency. Similarly, inferential statistical approaches were adopted to draw conclusions on problem stream and the execution of road safety policy initiatives. In doing so, simple linear regression approaches were employed to examine the direct correlation between variables as Jamshidi (2018) recommends. The Pearson Moment Correlation Coefficient, as Schober and Schwarte (2018) recommends, was used to establish the strength and suitability of a linear relationship in the study variables.

Statistical Models: Statistical models are created when constructs in a study are required to show the nature of inter-construct relationship (Gujarat, 2012). As a result, the study adopted simple Linear Regression to demonstrate combined relationships of all the independent variables (problem stream) and depend variable (implementation of road safety policy measures). The direct model determined was $Y = \beta_0 + \beta_1 X_1 + \varepsilon$ ……1

Where: Y- Implementation of road safety policy measures, $\boldsymbol{\beta_0}$ – Constant, $\mathbf{X_1}$ -Politics stream, $\boldsymbol{\varepsilon}$ -Error term, $\boldsymbol{\beta_1}$, -Coefficient.

FINDINGS

As Bretschi, Schaurer, and Dillman (2021) suggest, before beginning data analysis and reporting, a study should calculate the response rate. For this study, a total of three hundred and thirty-five (335) questionnaires were distributed to matatu operators, and three hundred and twenty-seven (327) questionnaires, representing 97.6 percent, were collected back, having been filled. In addition, 9 of the 12 interviews that were to be conducted—75 percent response—were successful, while 3 (or 25%) were not. Mugenda & Mugenda (2003) opine that for data analysis and reporting, response ratio of 50 percent is sufficient, 60 percent is commendable, and 70 percent response or higher is remarkable. Thus, the 97.6 percent response of this study was apt.

Table 3: Response Rate for Questionnaires

Respondents	Questionnaires Distributed	Questionnaires Returned	Non-Response	Response (%)	Non-Response (%)
Matatu Operators	335	327	8	97.6	2.4
Interview		9	3	75	25

Source: Field Data (2021)

Politics Stream

The study established Politics Stream influenced the implementation of road safety policy initiatives in Nyanza region, Kenya. This was done by interrogating Politics Stream using measures of central tendencies.

Table 4: Descriptive Statistics on Politics Stream

Item	N	$\bar{x}$	SD
Non-state actors (NGOs and private sector) persuade me to follow to road safety measures.	327	3.42	1.195
I observe road safety measures when there is political stability.	327	3.26	1.318
Politicians always encourage me to observe road safety measures.	327	3.10	1.305
During election campaigns, political parties outline how they intend to improve enforcement of road safety rules.	327	3.01	1.373
The ruling party has consistently supported adherence to road safety measure through government agencies.	327	3.64	1.078
Opposition parties have consistently pushed for the enforcement of road safety measures.	327	2.98	1.218
I observe road safety measures because others have said the measures are good.	327	2.85	1.245
I observe road safety policy measures because the media said it.	327	3.05	1.294
I observe road safety measures because I believe it is a beneficial practice for everyone.	327	3.88	1.086
Average		**3.24**	**1.235**

Source: Field Data (2021)

The findings showed that matatu operators were neutral in their response (mean=3.42 and standard deviation = 1.195) as to whether non-state actors such as NGOs and private sector persuaded them to follow to road safety measures. This finding revealed that non-state actors had little influence on matatu crews when it came to implementing road safety policy. Hysing (2021) argues that governments are increasingly using new modes of governance to persuade non-state actors to voluntarily take responsibility for societal problems (such as road safety) because the ability of states to maintain a strong regulatory presence is being questioned due to a lack of democratic legitimacy and effectiveness. Tomkinson (2020) contends that the private sector's inaction in implementing road safety policy measures allows government officials like the NTSA and NPS officers to abuse their discretion by either avoiding making decisions that will help policy implementation or delaying policy implementation, or only partially implementing policy (Gilson, 2015). Congruently, when it came to whether non-state actors like NGOs and the corporate sector pushed matatu operators to adhere to road safety standards, interview responses echoed the view that non-state actors had no influence on matatu operators. This suggests that non-state actors' efforts to implement road safety regulations were generally unsuccessful. KISO agreed with the findings and observed:

> *NGOS and private sector are seasonal in advocating the implementation of road safety policy [...]. We only see them during festive seasons like in December or sometimes appear, in my opinion, when probably they experience pressure from their donors[...] it is not possible to confidently say that non-state players do their advocacy work or not in my county.*

In response to whether Matatu operators observed road safety measures when there was political stability in the country, the mean of 3.10 and SD of 1.305 suggested that despite the small variation reflected in the SD, there was consensus that during political turmoil accidents are likely to increase as well as fatality rates and injuries. These findings are in line with a study by Okemwa, Rogena, Rana, and Gatei (2008) which established that during the post-election violence in Kenya in 2007–2008, matatu road crashes increased due to low compliance with road safety measures, for example a decline in the use of safety belts and failure to observe speed limit due to poor coordination of law enforcement. Kassam, & Merali (2019) emphasized that political stability is required for prioritization of road safety as a political agenda. Indeed when asked whether matatu operators observed road safety measures when there is political stability in the country, the interviewee KSMO clearly demonstrated that political stability in a country played a key role in the adoption of road safety policies, adding:

> *[…] nobody cares to adhere to or enforce road safety rules while the nation is unstable politically. Rarely do institutions and agencies responsible discharge their mandate, they become temporarily dysfunctional.*

Matatu operators responded indifferently, with the mean of 3.26 and SD of 1.318, to the question whether politicians always encouraged them to observe road safety policy measures. This result suggested that politicians had little effect on matatu operators when it came to the implementation of policies aimed at improving road safety. The findings are in line with those of Cummings (2018), who conducted research in Nairobi County and discovered that despite an increase in accidents and fatalities in Nairobi City, improving road safety ranked low in the political agenda because politicians prioritized road construction over improvements to road safety because the former won them more public favor than the latter. Peden *et al*, (2004) opines that political commitment and determination are crucial for long-term road accident prevention. However, when key informants were asked whether politicians always encouraged matatu operators to observe road safety policy measures, responses from interview were categorical that politicians only took part in activities that contributed to their re-election. KISO added:

> *Politicians only take part in activities that will help them maintain their positions of power. They won't take part in road safety if it doesn't contribute to retaining one's political seat.*

Matatu operators responded with the mean of 3.01 and standard deviation of 1.373 when answering the question whether political parties outline how they intend to improve road safety. This demonstrated that they were not sure whether political parties highlighted strategies on how they intended to improve implementation of road safety policy measures as a priority during campaigns, suggesting that political parties had little influence over matatu operators' implementation of policies aimed at improving road safety. The results supported Khayesi's (2004) contention that Kenya's basic strategies to reduce accidents and injuries lack of governmental commitment, but that there is heightened attention every after a serious traffic accident. However, when key informants were asked as to whether political parties pointed out strategies on how they intended to improve employment of road safety policy measures as priority during campaigns, the responses were unequivocal that political parties only dwelt on the improvement of road infrastructure and road networks, not road safety. KSMO reiterated this, saying: '*Political parties only focus on the improvement of road infrastructure but ignore road safety, as improvement of road infrastructure and road networks appeals to the electorate.'*

The mean of 3.64 and the standard deviation of 1.078 established that matatu operators believed that the ruling party had consistently supported implementation of road safety policy measures. The standard deviation showed that the responses from matatu operators were, to some extent, varied from the mean. This finding suggests that the ruling party's road safety initiatives influenced matatu operators when it came to implementing those policies. These findings correspond with Ombagi and Muna's (2019) argument that prior to 2002 general elections in Kenya, NARC committed in their manifesto to address road safety and after they

won, the government released Legal Notice No. 161 of 2003, which helped to reduce road accidents by 73% after implementation (Mungai, 2019). On the contrary, in Uganda road safety was not regarded as important in political manifestos; in 2011-2015 NRM manifesto mentioned road safety as an agenda item but in the NRM's 2016-2021 manifesto road safety was conspicuously missing, yet road accidents were rampant across the country (Kassam & Merali, 2019).

In addition, with the mean of 2.98 and SD of 1.218, most Matatu operators disagreed with the assertion that opposition parties had consistently pushed for the enforcement of road safety measures. This result suggests that opposition party's activities minimally influenced matatu crews on matters concerning putting road safety policies into action. These findings are incongruent with Kristianssen, Andersson, Belin, and Nilsen (2018) who observed that both the opposition and the ruling party supported Vision Zero (road safety policy vision) in Sweden. Besides, this result agrees with Kumar (2018) who contended that opposition parties in Bangladesh took the lead in promoting implementation of road safety regulations by forming road safety movements. However, the findings of Reus (2016) in Germany, demonstrated that opposition political parties can support or oppose the execution of a policy based on their vested interests in that policy.

With the mean of 3.88 and standard deviation of 1.086, most Matatu operators agreed that they obeyed road safety policy measures because they believed it was a practice that benefitted everyone (general public). This result suggested that matatu operators recognized that obeying road safety policy measures was their civic duty. At the same time, with a mean of 2.85 and SD of 1.245, most Matatu operators disagreed with the assertion that they observed road safety policy measures because of external influence. These study findings agrees with Oyoo, Wamalwa, and Kihara, (2022) who opine that traffic road accidents affect the social and economic well-being of Kenya and her citizens. This view seems to be shared across Africa. Verster and Fourie (2018) noted that a large number of accidents on South African roads not only cause the loss of human life and the ensuing pain, grief and suffering but also have a detrimental impact on the socioeconomic development and general well-being of South Africans.

In the same vein, when the key informants were asked their opinion as to whether matatu operators obeyed road safety policy measures because the practice was beneficial to the general public, KISD agreed, adding: ''I*f a matatu operator disregards road safety regulations and causes a fatal accident, they do not only damage the nation's economy but also the livelihood of others who depend on the injured passengers. […] adherence to safety regulations benefits the entire country.''*

With the mean of 3.05 and 1.294 as the standard deviation, Matatu operators were neutral in their response to the assertion that they observed road safety policy measures because of mass media influence. This finding suggested that mass media had little influence on matatu crew in the implementation of road safety measures. This result further implies that Kenyan media lacked specialized initiatives to educate the public about the implementation of regulations for road safety, as Amugsi, Muindi, and Mberu (2022) suggested. However, elsewhere in the world, mass media seems to be influential. In India, for instance, media coverage of road traffic collisions (RTCs) influences preventive actions and plays advocating role by focusing on human stories and documenting the experiences of those injured in RTCs, which definitely ends up prompting the implementation of road safety policy measures (Gupta, Kakar, Peden, Altieri, and Jagnoor, 2021).

However, when key informants were asked whether mass media influenced enforcement of road safety rules, the key informants emphatically stated that mass media has significant effect. This view was congruent with most studies as highlighted above. KSMO reiterated:

> *[…] media has a big effect on the matatu operators in implementing road safety laws, and. […] media plays a vital role in ensuring matatu crews obey road safety rules.*

Implementation of Road Safety Policy Measures

The study examined the implementation of road safety policy measures in Nyanza region, Kenya, using measures of central tendencies as shown in Table 5.

Table 5: Descriptive Statistics on Implementation of Road safety Policies

Item	N	$\bar{x}$	SD
I always observe PSV road safety policy measures.	327	2.51	1.134
I always ensure total observance of road safety measures in the matatu.	327	2.09	1.105
Posters on road safety in matatus trigger enforcement of safety rules.	327	3.69	1.073
Our matatus are always in compliance with all road safety measures.	327	2.26	1.127
Traffic police officers respond quickly when road accident occurs.	327	2.42	1.024
In the absence of a traffic officer, I'm less likely to follow road rules.	327	4.02	1.009
The level of enforcement of road safety rules in matatu is adequate.	327	2.19	.912
I am well-versed with all road safety measures.	327	3.48	1.098
Passengers have role of ensuring matatu crews comply with safety rules.	327	3.82	1.122
Average		**2.94**	**1.067**

Source: Field Data (2021)

With the mean response of 2.51 and standard deviation of 1.134, Matatu operators did not confirm or deny whether they always followed road safety measures, and again with the mean of 2.09 and standard deviation of 1.105, Matatu operators disagreed that they encouraged passengers to observe the laid out road safety policy measures. However, with the mean of 3.69 and standard deviation of 1.073 matatu operators strongly agreed that posters and adverts in PSV stimulated them to comply with the road safety policy measures. Raynor and Mirzoev (2014) argued that matatus disregard road safety because there are financial demands put on drivers, and this causes dangerous competition on the road, which leads to risky driving. However, Okwako (2017) contended that matatu crew had the obligation of ensuring passengers adhere to road safety policy measures. In line with these findings, KSMO stated:

> *In most cases, matatu operators are paid on a daily basis; very few SACCOs pay their crews monthly…they get paid based on the daily performance […] the more money they make, the higher the pay. This compels them to carry excess passengers, and over speed so as to meet the demands of their customers. […] this situation obviously encourages breaking of traffic rules. [...]*

With the mean result of 2.42 and standard deviation of 1.024, Matatu operators disagreed that traffic police officers responded speedily when road accident occurred. These results support Cheche and Kariuki's (2017) conclusion that traffic police officers—at 53%—and NTSA officers—at 32%—are the greatest impediment to the implementation of policy initiatives aimed at enhancing road safety. Similarly, Gichohi and Muna (2018) claim that despite the government's efforts to combat corruption, many police officers continue to demand bribe from PSVs and are reluctant to enforce legislation requiring the use of seatbelts and speed limits. KSMO concurred with this, explaining: 'W*hen an accident occurs, traffic police officers take their time to act. […] As a result, vehicles remain at the scene for hours before responding.'* This interviewee's response was congruent with the participant observation records that whenever an accident occurred along Kisii-Keroka road, police delayed to appear at the scene, even if the report is made in time (Observation, November 29, 2021).

With a mean of 4.02 and an average standard deviation of 1.009, Matatu crew admitted that they flouted road safety policy measures when traffic police officers were absent from police check points. Accordingly, Matatu operators disagreed (with the mean of 2.26 and standard deviation of 1.127) that their vehicles were always in compliance with road safety rules. These findings validate Mitullah and Asingo (2014) observation that road

users only comply with traffic laws when the traffic police officers are round. This explains why many traffic accidents occur at night and during weekends when traffic officers are absent from police checkpoints (NTSA (2020). However, Chitere and Kibua (2012) in their findings in Nairobi, Mombasa, and Kisumu, Nakuru, Machakos, Kwale, Migori, Kakamega, Bungoma, and Kilifi revealed that matatus were likely to flout road safety rules despite the presence of traffic policy officers. This assertion is agreement with what KSMD and KISD said: '*Most public service vehicles operating on our roads are not compliant with road safety policy standards.'* Meanwhile, KSMO confirmed that "*Matatus overlook road safety measures whenever traffic officers are not on police checks*." Participant observation confirmed these claims that when police weren't present at the checkpoints, most matatus were spotted carrying excessive passengers to the point that people were hanging from the sides of the vehicles (Observation, November 23, 2021).

Congruently, when key informants were asked whether matatu operators disobeyed road safety measures when traffic police officers were absent from police check points, interview responses echoed the qualitative responses from KISO and KSMC4, thus categorically demonstrating that the presence of police officers at police check point was essential. In this regard, KISO added, '*Paka akitoka panya hutawala (When the cat leaves, the rat assumes control); that is the game on the road between the traffic police and matatu crews.*' This inferred that when matatu operators got wind that traffic police officers had been spotted on a given route, matatu operators changed to a different route in order to escape the police check. This attitude negatively affected adherence to road safety policy measures. Besides, KSMC4 observed: '*Matatu crews are likely to disobey traffic laws when they know that traffic police officers are not at police checkpoints, or sometimes withdraw vehicles from the road when traffic police officers are conducting a major road crackdown.'*

Matatu operators' response of 3.82 and 1.122 standard deviation showed that passengers took a central role when it came to compliance with road safety measures. This findings suggested that implementation of road safety policy measures need concerted effort from all stakeholders. This finding is congruent with Mahdi and Khaled (2022), citing Regan & Mitsopoulos (2001), who contended that passengers have the crucial responsibility of ensuring that road safety programs are implemented. These tasks include providing the driver company, alerting the driver concerning impending risks while on the road, and cautioning the driver if exceeding speed limit (Khaled, 2022). However, as much as data from key informants was consistent with quantitative data, interviewee noted that sometimes passengers contribute to the flouting of road safety rules. KSMO posited that *"some passengers only follow road safety rules, such as wearing seatbelts, when they are signaled that the vehicle is approaching a traffic police officers checkpoint. Others are always in a rush and encourage drivers to disobey traffic rules, like speed limits as they rush to their destination. This behavior on the road compromises road safety rules."* This statement corroborates the participant observation that majority of passengers in Kisii county were seen checking for their safety belts when the conductor or drivers signaled that they were approaching police checkpoint (Observation, November 27, 2021).

With the mean of 3.48 and standard deviation of 1.098, Matatu operators agreed with the assertion that they were not fully conversant with road safety policy measures as spelt out in the Traffic Act Cap 403 of the Laws of Kenya and *National Transport and Safety Authority Act, 2012*.These results imply that matatu operators are not properly interviewed and tested before being hired for a position. One's understanding of traffic regulations can only be ascertained through an interview. As such, this serious flaw makes it difficult to execute road safety measures effectively. However, this study's findings are inconsistent with those of Cheche and Kariuki (2017) who did a study in Kiambu, Kenya, that established that 80% of the operators in the matatu industry were acquainted with existing of road safety rules. Besides, Transparency International Kenya (2018) findings opined that majority of matatu operators in Nairobi, Kiambu, Kajiado, and Machakos were conversant with Kenya traffic laws. In support of these findings, the response of key informants revealed that training matatu operators was a challenge. Competence and experience are not taken into account when hiring

matatu operators. KISC1 posited: '*Majority of drivers have not attended recognized driving schools, but, instead, acquired licenses through questionable means.'*

Finally, with the mean of 2.19 and standard deviation of 0.912, matatu operators disagreed with the assertion that the existing level of enforcement of the road safety policy measures was adequate. This finding suggested that inadequacy of road safety implementation gave way to increased accidents which translate into high fatality rate as well as injuries. This underscores underscores Osoro, Ng'ang'a, and Yitambe's (2015) observation that Kisii County had an average annual increase of 7.5 percent in accident-related deaths and 47 percent increase in serious injuries. And according to Aoya (2017) and Ogombe (2016), fatality rate stood at 45% in Kisumu County between 2013 and 2018. Qualitative data from key informants agreed that there was a change in the implementation of road safety measures. Collectively, KISC, KSMC, KSMD, KSMO, KISD and KISO shared the opinion that the *level of implementation of road safety policy measures is below expectation in Nyanza region.*

Regression Analysis

In order to show the combined link between the independent variables and the execution of road safety policy measures, this study adopted multiple regressions, since it contained Politics streams. To interpret the SPSS outputs, the study adopted Allen, Bennett and Heritage (2018) criteria. In this approach, R^2 represents proportion of variance in the enactment of road safety policies (DV) and can be accounted for by political Streams Framework (IV). Adjusted *R*-value and R^2 show whether multiple streams can reliably predict enactment of traffic safety regulations.

Table 6: Model Summary for Political streams and Implementation of Road safety Policy Measures

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.643[a]	.617	.609	.40633

Source: Field data (2021)

The outcomes exhibited R squared of 0.617, being evidence that political streams accounted for 61.7 % of variance in implementation of road safety policy measures (dependent variable) in Kisii and Kisumu counties, leaving 38.3 % to be explained by exogenous factors. These findings correspond with Ridde (2009) assertion that political Streams Framework has significant influence on the implementation of public policy and that it could be helpful in forecasting, comprehending, and explaining challenges relating to implementation of public policy, and the framework can be used to predict the outcome of policy implementation (Zahariadis, 2014).

In addition, the study examined the goodness of fit of the model using ANOVA, Table 7.

Table 7: ANOVA on political stream and Implementation of Road Safety Policy Measures

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.178	3	2.463	14.220	.000[b]
	Residual	52.228	323	.165		
	Total	59.396	326			

a. Dependent Variable: Implementation of road safety policy measures
b. Predictors: (Constant), Politics stream , Problem stream, Policy stream

Source: Field data (2021)

Table 7 regression results displayed a p-value (0.000) that was less than the conventional cut off of 0.05, demonstrating that the model was significant statistically. This evidence was reinforced through the F-statistic of 14.220, which is greater than the F-critical value (3,323) = 2.463 as tabulated in the F-table (appendix). In addition, the results indicate that Problem stream, Policy stream, and Politics stream predicted implementation of road safety policy measures outcomes. It shows, therefore, that Problem stream, Policy stream, and Politics

stream jointly explained variance in enactment of road safety policy measures in Nyanza region. These findings are congruent with Ridde's (2009) findings that multiple streams Framework may be used to examine public policy implementation at the local level (decentralized units). These findings are also consistent with Zahariadis' (2014) claim that MSF can be used to predict the outcome of policy implementation.

In addition, the study examined the coefficients of political Streams Framework.

Table 8: Coefficients for political Streams Framework and Implementation of Road Safety Policy Measures

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.157	.145		14.166	.000
	Politics stream	.155	.043	.281	4.963	.000

Source: Field data (2021)

Accordingly the findings revealed that when Politics stream was computed with other streams with regression coefficient results ($\beta = 0.155$ $p=0.000<0.05$), there was a positive and significant association between Problem stream and implementation of road safety policy measures.

Politics streams constructs shaped the application of road safety policy initiatives and political and policy streams continue to be the cornerstones of putting road safety regulations into action (Hoe *et al.,* 2019). Socio-political elements such as budgetary restrictions have a significant bearing on the success or failure of the execution of public policies (De Wals, Espinoza, and Béland, 2019). When politics stream is increased by 1 unit, Implementation of Road Safety increased by 0.155 units.

CONCLUSION AND RECOMMENDATIONS

Ascertaining the effect of Politics Stream on the enactment of road safety policy measures in Nyanza region was the third objective. Politics stream was revealed as essential constituent in the enactment of road safety policy measures among matatu operators. The respondents disclosed that political environment which is manifested in non-state actors, political stability and politicians' pronouncements trigger the implementation of road safety policy measures. Results also showed party priorities of both the government and opposition parties, which are typically displayed during political elections through manifestos, encouraged the enacting of road safety policy measures among matatu operators. Further, the findings demonstrated that public opinion elicited implementation of road safety policy among the respondents. These findings were congruent with Kassam and Merali (2019) who in their study found out that political environment, political party priorities and public opinion shaped enactment of road safety policies.

Moreover, the result exhibited a moderate, positive and statistically significant link between politics stream and the execution of road safety policy measures. Results showed that for every unit increase in the politics stream, road safety implementation increased by 0.165. This result suggests that as the policy stream developed, adherence to road safety policy measures got better. Findings further disclosed Policy Stream had a positive and meaningful effect on the adoption of policy measures pertaining to road safety. This was echoed by Kassam and Merali's (2019) who argued that the political climate had a significant impact on how well road safety policies were implemented.

Moreover, the study established that Politics Stream significantly influenced implementation of road safety policies. The study found that factors related to the political environment, including party politics and public mood, influenced how road safety policy initiatives were implemented. This notwithstanding, the survey found that political actors never expressed an interest in issues related to road safety.

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