

Perceived Effectiveness of Traffic Law Enforcement Implementation and Its Correlation with Public Utility Drivers' Satisfaction

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ABSTRACT

The increasing incidence of traffic accidents and road violations has drawn renewed attention to the effectiveness of traffic law enforcement and its influence on road-user perceptions. This study investigated the level of traffic law enforcement implementation effectiveness and its relationship with public utility drivers' satisfaction in Oroquieta City. A quantitative, descriptive–correlational research design was employed to examine how drivers assess enforcement policies, officer presence, violation enforcement, and public awareness initiatives, as well as how these assessments relate to their overall satisfaction. Data were gathered from 321 registered public utility drivers selected through an appropriate sampling procedure to ensure representativeness. A structured survey questionnaire was utilized, and the data were analyzed using descriptive statistics and Pearson's correlation analysis.

Results indicated that traffic law enforcement implementation in Oroquieta City was generally rated high across all dimensions, particularly in terms of policies and procedures, officer visibility, enforcement of violations, and public education efforts. Similarly, public utility drivers expressed a high level of satisfaction with traffic law enforcement, suggesting favorable perceptions of fairness, organization, and visibility of enforcement activities. However, correlation analysis revealed that the relationships between enforcement effectiveness and drivers' satisfaction were mostly very weak and largely non-significant, indicating that satisfaction is only minimally associated with the measured dimensions of enforcement effectiveness. These findings suggest that drivers' satisfaction may be influenced more by contextual and perceptual factors, such as driver demographics, years of driving experience, sociocultural norms, perceived legitimacy, consistency, and quality of interaction with enforcers, rather than by enforcement effectiveness alone.

The study concludes that while traffic law enforcement in Oroquieta City is perceived as effective and satisfactory, enforcement intensity by itself is insufficient to substantially shape driver satisfaction. It is recommended that local authorities strengthen strategic enforcement while expanding community-based education, transparency, feedback mechanisms, and context-sensitive interventions to enhance public trust, cooperation, and sustainable compliance.

Keywords: traffic enforcement, public utility drivers, satisfaction, road safety, traffic management

INTRODUCTION

Rationale of the Study

Traffic law enforcement is a critical component of urban governance, playing a vital role in maintaining road safety, regulating traffic flow, and protecting public welfare. With the rapid growth of urban populations and increasing motorization worldwide, managing road traffic has become a major challenge for local authorities. Effective enforcement of traffic regulations—including speed limits, traffic signals, and road safety rules—has been widely recognized as an essential strategy for reducing road crashes and promoting responsible driving behavior. Empirical studies indicate that consistent and systematic enforcement significantly reduces traffic

violations, injury crashes, and road fatalities while encouraging compliance among road users (Cohn et al., 2020; Wang & Liang, 2025).

In many developing and rapidly urbanizing regions, traffic safety remains a pressing concern due to increasing vehicle ownership, limited infrastructure capacity, and institutional challenges in implementing traffic regulations. Research suggests that strong enforcement mechanisms, supported by effective monitoring systems and policy implementation, can significantly improve road safety outcomes and enhance compliance with traffic laws (Alfaki, 2024; Endashaw et al., 2025). However, driver perceptions of enforcement effectiveness may vary depending on individual factors such as age, driving experience, and exposure to local driving culture, as well as community norms regarding compliance and traffic behavior. These findings emphasize the importance of consistent and transparent enforcement practices in promoting safer urban transport systems and minimizing accident risks.

In the Philippine context, traffic congestion and road violations continue to pose challenges for local governments, particularly in smaller cities where resources for traffic management may be limited. Although traffic regulations are in place, their effectiveness often depends on enforcement visibility, operational efficiency, and coordination among traffic management authorities. Oroquieta City, like many developing urban centers, is experiencing increasing transportation demands due to population growth and expanding economic activities. Public utility drivers play a significant role in the city's transportation system, as they interact with traffic regulations daily and directly experience the effects of enforcement practices.

Despite growing research on traffic safety and law enforcement, many studies focus primarily on large metropolitan areas, leaving smaller cities relatively underrepresented in academic literature. Understanding the perceptions of public utility drivers is particularly important because their experiences reflect the practical realities of traffic enforcement at the local level. Moreover, differences in driver demographics, years of experience, and cultural expectations may further shape satisfaction with enforcement practices, suggesting the need for context-specific analysis. Therefore, this study aims to assess public utility drivers' satisfaction with traffic law enforcement in Oroquieta City, focusing on their perceptions of effectiveness, fairness, and operational impact. The findings of this study may provide insights that can help improve traffic management strategies and strengthen enforcement practices in small and developing urban areas.

Statement of the Problem

This study examined the relationship between traffic law enforcement implementation effectiveness and public utility drivers' satisfaction in Oroquieta City.

Specifically, the study endeavored to answer the following questions:

1. What is the level of traffic law enforcement implementation effectiveness in terms of:
 - 1.1 Traffic Law Enforcement Policies and Procedure
 - 1.2 Presence of Traffic Law Enforcement Officers
 - 1.3 Enforcement of Traffic Violation
 - 1.4 Public Awareness and Education on Traffic Laws
2. What is the level of respondents' satisfaction in terms of:
 - 2.1 Satisfaction with Traffic Law Enforcement Policies and Procedure
 - 2.2 Satisfaction with Presence of Traffic Law Enforcement Officers
 - 2.3 Satisfaction with Enforcement of Traffic Violation

2.4 Satisfaction with Public Awareness and Education on Traffic Laws

3. Is there a significant relationship between the level of traffic law enforcement implementation effectiveness and drivers' satisfaction?

METHODS

This study employed a quantitative descriptive-correlational design to examine the relationship between traffic law enforcement implementation and public utility drivers' satisfaction. Such a design allows for the measurement and analysis of naturally occurring variables without manipulation, providing insight into the strength and direction of associations (Asmoah, 2014; Stangor & Walinga, 2014). Quantitative data collection facilitated identification of patterns, trends, and correlations among respondents while supporting generalizable findings.

The study was conducted in Oroquieta City, Misamis Occidental, the provincial capital characterized by urban and suburban areas where traffic management plays a critical role in maintaining public safety. The target population consisted of 1,938 registered public utility drivers for the year 2025, from which 321 respondents were purposively selected using the Raosoft sample size calculator to ensure statistical representativeness. Inclusion criteria required respondents to be officially registered, at least 18 years old, have a minimum of two consecutive years of driving experience in the city, and consent voluntarily to participate in the survey. Additional demographic data, including age, years of driving experience, type of vehicle operated, and community of residence (urban vs. rural), were collected to allow examination of contextual influences on satisfaction.

Data were collected using researcher-developed questionnaires measuring traffic law enforcement implementation effectiveness and drivers' satisfaction, each employing a four-point Likert scale across seven items per construct. Prior to the main survey, a pilot test was conducted with a small representative sample from the study area to refine items and ensure clarity, relevance, and coverage of the constructs. Reliability of the instrument was assessed using Cronbach's Alpha, confirming internal consistency. Survey administration was conducted personally after securing formal approvals from the university, relevant local authorities, and participating drivers, with confidentiality and voluntary participation strictly maintained in accordance with ethical standards and the Data Privacy Act of 2012.

Data were analyzed using Minitab software. Descriptive statistics, including mean, standard deviation, and frequency distributions, summarized levels of enforcement implementation and satisfaction. Pearson's correlation coefficient was employed to examine the relationship between the variables. Additional analyses were conducted to explore potential moderating effects of driver demographics, experience, and sociocultural context on satisfaction levels. To ensure methodological rigor, the study emphasized credibility by triangulating participants' experiences with observed enforcement patterns and official guidelines, dependability through systematic data collection and consistent procedures, and confirmability by documenting the analytic process and referencing supporting literature.

RESULT AND DISCUSSION

Level of Traffic Law Enforcement Implementation Effectiveness

Table 1 Level of Traffic Law Enforcement Implementation Effectiveness as Perceived By Public Utility Drivers in the City

Statements	Mean	Description
A. Traffic Law Enforcement Policies and Procedures	3.15	Effective
B. Presence of Traffic Law Enforcement Officers	3.21	Effective

C. Enforcement of Traffic Violations	3.21	Effective
D. Public Awareness and Education	3.24	Effective

The findings indicate that the implementation of traffic law enforcement in Oroquieta City is generally perceived as effective across all evaluated dimensions. Among the indicators, public awareness and education received the highest mean rating, suggesting that road safety campaigns, traffic orientations, and information dissemination efforts play a significant role in promoting responsible driving behavior among public utility drivers. When drivers possess adequate knowledge of traffic rules and regulations, they are more likely to comply voluntarily and demonstrate safer driving practices. Previous research emphasizes that road safety education and awareness initiatives significantly improve drivers' attitudes and compliance with traffic regulations, thereby contributing to the prevention of traffic violations and road crashes (Useche et al., 2021; Castillo-Manzano et al., 2020). These findings highlight that effective traffic law enforcement is not solely dependent on punitive measures but also on educational strategies that encourage responsible behavior among road users.

Similarly, the relatively high ratings for the presence of traffic law enforcement officers and the enforcement of traffic violations indicate that visibility and consistency in enforcement play an important role in maintaining road discipline. The presence of enforcement personnel on roads and intersections serves as a deterrent against violations and reinforces drivers' sense of accountability while on the road. Studies have shown that visible and consistent traffic enforcement strategies can significantly reduce risky driving behaviors and improve compliance with road safety regulations, particularly among frequent road users such as public utility drivers (Aghabayk et al., 2021; Martin-Delgado et al., 2022). Although traffic law enforcement policies and procedures received the lowest mean score among the indicators, it was still interpreted as effective, suggesting that existing policies are generally functional but may benefit from periodic evaluation and refinement to address evolving traffic conditions. Strengthening policy implementation, maintaining enforcement visibility, and sustaining public education initiatives may further enhance the overall effectiveness of traffic law enforcement and contribute to improved road safety outcomes.

Level of Satisfaction by Public Utility Drivers on the Traffic Law Enforcement Implementation in the City

Table 2 Level of Satisfaction by the Registered Public Utility Drivers in the City on Traffic Law Enforcement Implementation Effectiveness

Statements	Mean	Description
A. Satisfaction on Traffic Law Enforcement Policies and Procedures	3.28	High
B. Satisfaction on Presence of Traffic Law Enforcement Officers	3.23	High
C. Satisfaction on Enforcement of Traffic Violations	3.22	High
D. Satisfaction on Public Awareness and Education	3.16	High

The results in Table 2 indicate that registered public utility drivers in Oroquieta City generally expressed a high level of satisfaction with traffic law enforcement implementation across all assessed dimensions. Satisfaction was highest for traffic law enforcement policies and procedures, suggesting that drivers value clear, organized, and well-managed regulations. This is followed by the presence of traffic law enforcement officers and the enforcement of traffic violations, while public awareness and education received the lowest, though still high, rating. Research supports these findings, indicating that well-structured policies and consistent, visible enforcement practices enhance drivers' satisfaction and foster greater compliance with traffic regulations (Afroz et al., 2021; Shalaby et al., 2022). The slightly lower satisfaction for public awareness and education suggests that, despite current efforts, further strengthening of educational campaigns and information dissemination could help ensure that traffic rules and safety messages effectively reach all drivers.

These findings are consistent with literature emphasizing that driver satisfaction with traffic law enforcement is shaped by perceptions of fairness, visibility, and educational support. Studies have shown that consistent enforcement, impartial application of penalties, and structured educational initiatives significantly improve road users' satisfaction and compliance with traffic laws (Kumar & Ghosh, 2020; Obeng et al., 2023). Moreover, sustained public awareness programs have been associated with safer driving behaviors, particularly among frequent road users such as public utility drivers (Nguyen et al., 2021; Farah et al., 2022). Overall, the results suggest that Oroquieta City's traffic law enforcement system is positively received by drivers, while highlighting the ongoing need to enhance public education and outreach initiatives to maintain satisfaction and support long-term road safety goals.

Significant Relationship between Level of Traffic Law Enforcement Implementation Effectiveness and Level of Satisfaction of Public Utility Drivers

Table 3 Significant Relationship between the Level of Traffic Law Enforcement Implementation Effectiveness and Level of Satisfaction of Registered Public Utility Drivers

Variables	<i>r</i> value / <i>p</i> value	Remark
Effectiveness on Traffic Law Enforcement Policies and Procedure and Satisfaction on Traffic Law Enforcement Policies and Procedure	0.007 0.899	Very Low Correlation Not Significant
Effectiveness on Traffic Law Enforcement Policies and Procedure and Satisfaction on Presence of Traffic Law Enforcement Officers	0.37 0.538	Low Correlation Not Significant
Effectiveness on Traffic Law Enforcement Policies and Procedure and Satisfaction on Enforcement Officers of Traffic Violations	0.019 0.736	Very Low Correlation Not Significant
Effectiveness on Traffic Law Enforcement Policies and Procedure and Satisfaction on Public Awareness and Education on Traffic Laws	0.55 0.322	Very Low Correlation Not Significant
Effectiveness on Presence of Traffic Law Enforcement Officers and Satisfaction on Traffic Law Enforcement Policies and Procedure	0.063 0.258	Very Low Correlation Not Significant
Effectiveness on Presence of Traffic Law Enforcement Officers and Satisfaction on Presence of Traffic Law Enforcement Officers	0.197 0.000	Very Low Correlation Significant
Effectiveness on Presence of Traffic Law Enforcement Officers and Satisfaction on Enforcement Officers of Traffic Violations	0.030 0.592	Very Low Correlation Not Significant
Effectiveness on Presence of Traffic Law Enforcement Officers and Satisfaction on Public Awareness and Education on Traffic Laws	0.051 0.360	Very Low Correlation Not Significant
Effectiveness on Enforcement Officers of Traffic Violations and Satisfaction on Traffic Law Enforcement Policies and Procedure	0.076 0.174	Very Low Correlation Not Significant

Effectiveness on Enforcement Officers of Traffic Violations and Satisfaction on Presence of Traffic Law Enforcement Officers	0.143 0.011	Very Low Correlation Significant
Effectiveness on Enforcement Officers of Traffic Violations and Satisfaction on Enforcement Officers of Traffic Violations	0.013 0.818	Very Low Correlation Not Significant
Effectiveness on Enforcement Officers of Traffic Violations and Satisfaction on Public Awareness and Education on Traffic Laws	0.049 0.381	Very Low Correlation Not Significant
Effectiveness on Public Awareness and Education on Traffic Laws and Satisfaction on Traffic Law Enforcement Policies and Procedure	0.142 0.011	Very Low Correlation Significant
Effectiveness on Public Awareness and Education on Traffic Laws and Satisfaction on Presence of Traffic Law Enforcement Officers	0.028 0.622	Very Low Correlation Not Significant
Effectiveness on Public Awareness and Education on Traffic Laws and Satisfaction on Enforcement Officers of Traffic Violations	0.048 0.392	Very Low Correlation Not Significant
Effectiveness on Public Awareness and Education on Traffic Laws and Satisfaction on Public Awareness and Education on Traffic Laws	0.062 0.270	Very Low Correlation Not Significant

The correlational analysis in Table 3 shows that the relationships between perceived traffic law enforcement effectiveness and public utility drivers’ satisfaction are generally weak. Most Pearson’s *r* values are very low, and the majority of *p*-values are not statistically significant. While a few correlations reached significance, their small magnitudes suggest limited practical relevance. This indicates that improvements in enforcement effectiveness alone are only marginally associated with drivers’ satisfaction. In practice, factors beyond enforcement—such as the quality of interaction with traffic officers, drivers’ personal experiences, and broader contextual conditions—may exert a stronger influence on how drivers perceive traffic governance and evaluate satisfaction (Tran et al., 2021; Ukkusuri & Sharifi, 2022).

These findings align with recent literature emphasizing that enforcement intensity alone rarely determines public satisfaction or compliance with traffic regulations. Studies suggest that perceived legitimacy, fairness, and clarity in communication are often more important in shaping public attitudes toward traffic enforcement than strict enforcement measures (Arafat et al., 2023; Zuo et al., 2022). Moreover, integrated approaches that combine enforcement with visible public engagement, education, and systemic safety strategies—commonly referred to as “safe-system” approaches—tend to produce stronger compliance, greater public support, and more sustainable behavioral changes (Li et al., 2020). Collectively, these insights explain the low correlations observed in this study and highlight the need for traffic policy strategies that balance enforcement with legitimacy-building, communication, and education to improve both driver satisfaction and long-term compliance.

CONCLUSION

The findings indicate that traffic law enforcement in Oroquieta City is generally implemented at a high level, reflecting effective policies, visible enforcement, and sustained public awareness initiatives that support road order and safety. Public utility drivers likewise report a high degree of satisfaction with the current enforcement system, particularly in terms of officer presence, fairness in implementation, and clarity of regulations. However, the weak and mostly negligible correlations between enforcement effectiveness and driver satisfaction suggest that satisfaction is not shaped by enforcement structures alone. Instead, it appears to be more closely linked to

visible, consistent, and communicative aspects of enforcement, underscoring the importance of legitimacy, transparency, and everyday interactions between drivers and authorities in shaping public perceptions. Instead, satisfaction is influenced by driver-specific factors (e.g., demographics, experience) and broader sociocultural expectations, underscoring the importance of legitimacy, transparency, effective communication, and context-sensitive enforcement strategies in shaping public perceptions.

RECOMMENDATIONS

Local authorities may further strengthen traffic governance by complementing enforcement with continuous community-oriented education, strategic deployment of personnel, and the judicious use of technology to enhance visibility and consistency. It is recommended that authorities also consider driver demographics, experience, and sociocultural norms in designing enforcement strategies, information campaigns, and road safety programs. Establishing regular feedback channels with public utility drivers can help identify practical concerns, reinforce mutual trust, and promote cooperative compliance. Integrating targeted training sessions and awareness campaigns that consider local cultural norms and driving behaviors can further enhance satisfaction and perceived fairness. Policymakers may also draw on the study's results to inform evidence-based adjustments to traffic management strategies and targeted information campaigns. Future research may broaden the scope by including other road user groups or comparative urban settings to deepen understanding of how enforcement, perception, and satisfaction interact across different traffic contexts.

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