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RESEARCH ARTICLE

The Effectiveness of No-Contact Apprehension Policy for Traffic Violators

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ABSTRACT

The implementation of No-Contact Apprehension Policy (NCAP) is the initiative of the Government through the Metro Manila Development Authority (MMDA) which aims to innovate traffic management systems. Thus, this research study is evolved on the effectiveness of its implementation within Quezon City which employed the Quantitative and Qualitative method of research using Convergent design. There are two participants group of this study; the traffic enforcement system group comprised of the Traffic and Transport Management Division(TTMD) and the NCAP-MMDA Personnel, the second group of participants are the officers of the 7 registered Transport Association of Quezon City, with an overall total of 134 respondents employing purposive sampling technique. Findings showed that the implementation of NCAP is effective in disciplining motorists, reduces reckless behaviors such as speeding and running red lights, an instruments of smoother flow of vehicles, enforces traffic rules without causing congestion, and maintains order on the roads. The policy minimizes opportunities for graft and corruption among traffic enforcers. The result of the interview has emerged the essential themes that has positively impacted on the fight against corruption among traffic enforcers, offered credible proof, and standardized enforcement practices. However, there are some challenges in the implementation; the problems with data privacy protection, information dissemination and the CCTV replacement due to human damage. Such indications suggest that these challenges must be solved in order to continue increasing the effectiveness of the NCAP. In general, the No-Contact Apprehension Policy act emphasizes and improves traffic control and the safety and orderliness of traffic practices.

INTRODUCTION

The No-Contact Apprehension Policy or NCAP has since become one of the most important and significant changes we have today on traffic management strategies in Metro Manila designed to combat problems associated with traffic violation, congestion, corruption, and the ineffectiveness of conventional apperception practices as considered major problem in Metro Manila (Olivarez, (2022). traffic violator represent a huge test to street security and the general working of metropolitan transportation frameworks. To control crazy driving and implement traffic guidelines, policing overall depend on customary strategies for catching violators, frequently including direct communications among officials and drivers(Badua 2021; Paras et Al., 2022). The coming of the "no-contact apprehension" strategy for traffic violators addresses a pivotal change in outlook in how

traffic the board is drawn nearer. In a period set apart by mechanical headways and a developing requirement for effective administration, this strategy embraces robotization to change the conventional techniques for traffic implementation. The pith of the no-contact misgiving strategy lies in its capacity to authorize traffic rules without the need of direct collaborations between traffic implementers and drivers.

The foundation of the no contact apprehension was the implementation by the Metro Manila Development Authority (MMDA) in partnership with the De La Salle University or DLSU within Metro Manila, utilizes Closed-Circuit Television (CCTV) Monitoring to apprehend vehicles violating traffic laws, rules and regulations by capturing videos and images to use artificial intelligence in the system with the project "CATCH-ALL" (Dadios, E. P. Et., Al.,2020; AL-Qadri et al., 2022). With the utilization of CCTVs and man-made consciousness framework, it can assist the framework with identifying traffic violators utilizing a mechanized interaction. The No Contact Apprehension Policy (NCAP) is a traffic the board and street security measure carried out by The Metro Manila Development Authority (MMDA) to address criminal traffic offenses and further develop street wellbeing, The arrangement uses CCTV cameras and innovation to screen criminal traffic offenses without the requirement for actual fear or halting of vehicles (Dadios, E. P. Et., Al.,2020). The adequacy of the NCAP in diminishing criminal traffic offenses has been seen in Quezon City, where critical drops in criminal traffic offenses have been accounted for (Bolledo, J. 2022; Al-khresheh et al., 2021). The strategy depends on the utilization of innovation to record criminal traffic offenses and issue tickets without the requirement for actual contact between the master and the violator. This approach is expected to diminish defilement and work on the proficiency of traffic management. One of the vital targets of the No Contact Apprehension Strategy was to lessen defilement among drivers. As per the Metropolitan Manila Development Authority (MMDA), the approach has been powerful in decreasing occurrences of traffic violations among drivers. Since the execution of the strategy, the MMDA has revealed a huge decline in the quantity of protest or objections connected with defilement through NCAP (Abejo, T 2023). Actually, during its implementation years 2018-2022 based on MMDA data indicating an average reduction of traffic violators up to 84% since its implementation.

Thus, this study will assess the No-Contact Apprehension Policy to evaluate its overall effectiveness. Specifically, it will determine the level of effectiveness of the policy in achieving its objectives. This includes how well the policy disciplines drivers, reduces physical apprehension, combats corruption and maintains traffic order. By looking into these factors, the study will provide a comprehensive view of the policy's impact on traffic management and public behavior.

It will also answer several key questions to identify the challenges and benefits of the policy (NCAP). The study will look into the problems encountered during the implementation of the no-contact apprehension policy, the obstacles that will hinder its success. It will also look into how the policy will reduce corruption among traffic enforcers in order to assess the overall traffic management on its effectiveness. By looking into these, the study will provide guide for re-implementation and future policy decisions.

Theoretical/Conceptual Framework

The theoretical framework of this study has a relation on the Rational Choice Theory, which proposes that people pursue levelheaded choices in view of their inclinations, objectives, and accessible data. (Sato, Y. 2013). With regards to criminal traffic offenses, drivers might gauge the expenses and advantages of following the no-contact trepidation strategy, for example, the gamble of getting found out, how much the fine, and the comfort of paying the fine. Likewise additionally on the investigation of Burns, and Roszkowska, (2016). Examine that the Judicious decision hypothesis and its presumptions about human conduct expresses that people gauge the expenses and advantages of their activities prior to pursuing a choice, where the danger of discipline (cost) offsets the advantages of committing a criminal traffic offense.

Rational Choice Theory recommends that strong demoralization strategies should grow the obvious costs of criminal traffic offenses. This could incorporate recognizable policing, disciplines, and informative missions highlighting the results of rule-breaking. Technique interventions can focus in on working on the obvious risks of getting found out, for instance, executing propels like traffic cameras, growing police presence, and ensuring fast and unsurprising prerequisite. Seeing the force of genuine bearing, instructive missions might come down on the ensured and unquestionable expenses related with criminal traffic offenses, bringing issues to light of the possibly upsetting results.

As indicated by the Rational Choice Theory, giving motivations to consistency — like compensations for keeping transit regulations — may affect conduct by modifying the harmony among expenses and advantages for useful ways of adapting to activities.

Basically, the Rational Choice Theory gives a focal point through which we can comprehend the mental cycles associated with criminal traffic offense navigation, offering bits of knowledge for creating successful implementation procedures and strategies that line up with the sane calculations on people in their regular routines.

Figure 1 shows the worldview of the review for the propose itemized diagram from Input - Process – Out-put and Expected result model. (Shoaib, M., et., al., 2022; Waheed et al., 2010). The Info Cycle Result (Initial public offering) model is a calculated structure used to comprehend and portray frameworks and cycles. It is a basic yet useful asset for dissecting how data or materials stream inside a framework. Here is a breakdown of every part of the Info - Cycle - Result and Expected result model:

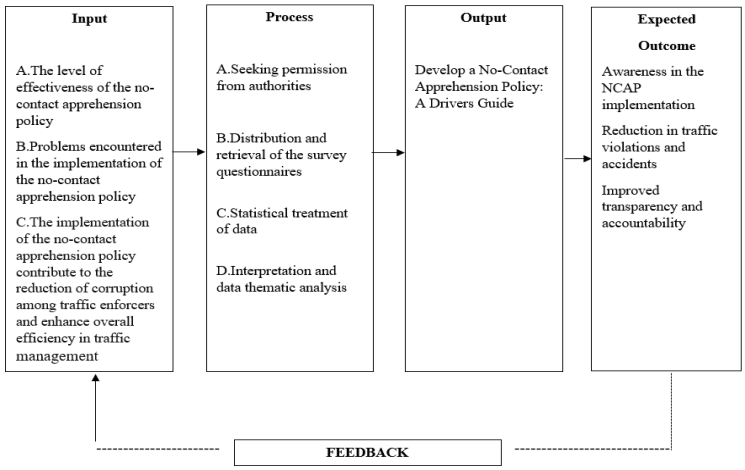

Figure 1. Paradigm of the Study

Statement of the Problem

The study aims to assess the effectiveness of no-contact apprehension policy and its challenges for traffic violators.

Specifically, this research study will answer the following questions:

What is the level of effectiveness of the no-contact apprehension policy, in terms of;

1.a Instilling Discipline to Motorist;

1.b Minimize the occurrence of physical apprehension to prevent traffic build-up;

1.c Prevent graft and corruption or kotong;

1.d Tool in enforcement of traffic rules and maintaining orders on the road;

What are the Problems encountered in the implementation of the no-contact apprehension policy;

How does the implementation of the no-contact apprehension policy contribute to the reduction of corruption among traffic enforcers and enhance overall effectiveness in traffic management;

RESEARCH DESIGN AND METHODOLOGY

The research method utilized the qualitative and quantitative data using convergent design to understand a phenomenon better and to answer the research objectives. Researchers combine qualitative and quantitative methods to expand their evidence, improve the credibility of their findings, and illustrate the results from one method with the results from the other one. (Creswell, J. W., & Plano Clark, V. L. 2017; Helaudho et al., 2024).

This study were conducted at Quezon City, Thus, the participants of this study are the 22 personnel of the Quezon City Traffic and Transport Management Department, 21 personnel of the Metro Manila Development Authority (MMDA) – No-Contact Apprehension Policy (NCAP) comprised the first group of participants the Traffic Enforcers. The second group of participants are the registered Transport Association; 11 officers from the Quick and Silver Transport Association, 13 Officers from the Atin To Transport Association, 11 Officers from Juan Transport Association, 13 Officers from Fairthron Transport Services, 11 Officers from 997 Sandigan Transport Services, 11 Officers from Pagunova Transport Services, 11 Officers from SEL Transport Corporation. with a total of 91 Officers of Transport Association all are registered Transport Organization of the Quezon City. The population of this research study has an over all total of 134 respondents employing purposive sampling technique. To answer the Qualitative part, it will be answered by the heads of the Organization; 7 Heads of the Transport Association, 6 Heads of the Quezon City Traffic and Transport Management Division (TTMD) and the Head(1) of the MMDA-NCAP with a total of 14 heads from Transport Sector and Implementers of the No-Contact Apprehension Policy (NCAP)

Data Gathering Tools

The primary data collection techniques in this study are the survey questionnaire and the interview guide. The questionnaire of this research study is formulated on the MMDA Resolution no. 16-01, series of 2016 the Resolution Implementing the No-Contact Apprehension Policy of Traffic Violators. The research questionnaires comprise of 4(four) parts; Part I. Profile of the respondents, Part II**.** The level of effectiveness of the no-contact apprehension policy, Part III. Problems encountered in the implementation of the no-contact apprehension policy and Part IV. The implementation of the no-contact apprehension policy contribute to the reduction of corruption among traffic enforcers and enhance overall efficiency in traffic management. The questions I to III are intended for the quantitative method with a reliability test using Cronbach's alpha tests in order to determine the effectiveness of the implementation of the No-Contact Apprehension Policy while the question IV is intended for the qualitative method in a form of a one on one interview and group interview among the traffic enforcer and transport group to come-up with an in depth thematic analysis.

To determine the level of effectiveness of the no-contact apprehension policy; the researchers used the 4-point scale with corresponding descriptive mean, as follows:

Treatment of Data

The data collected from the surveys, interviews, focus groups, should be analyze, tallied and interpreted using appropriate statistical and qualitative methods. The data for statement of the problem 1 of the study is first treated using the weighted mean. The obtain weighted mean will be computed based on the result of answered provided by the respondents using a 4-point scale, modeled Likert scale will be utilized to quantify the data obtained from the survey results. To analyze the different data a Multivariate analysis method will be a useful methods to determine relationships

and analyze patterns among large sets of data. It is particularly effective in minimizing bias if a structured study design is employed.

Table 1. Treatment Data

Range	Scale	Verbal Interpretation
4	Very effective	The participants are able to identify NCAP has a highly successful in achieving its intended purpose or outcomes, it demonstrates a significant and impactful positive result. There is a strong indication that it has produced the desired effects and has exceeded expectations.
3	Effective	The participants are able to identify that the process of the system of the no-contact apprehension is successful in achieving its intended purpose, it demonstrates positive results and is considered to be working well.
2	Moderately effective	The participants are able to identify that the process of the system of the no-contact apprehension is somewhat effective in achieving its intended purpose, it is performing adequately, but there may be areas where enhancements could increase its effectiveness.
1	Not effective	Participants are amenable that the no-contact apprehension policy is not effective in Instilling Discipline to Motorist, Prevent traffic build-up, Prevent graft and corruption or kotong, Tool in enforcement of traffic rules and maintaining orders on the road.

Legend:1.00-1.75 = Not Effective (NE); 1.76-2.50 = Moderately Effective (ME); 2.51-3.25 = Effective (E); 3.26-4.00 = Very Effective (VE)

For Statement of the Problem 2, a ranking method using mean and marginal frequencies will be appropriate. Ranking is a straightforward and effective data collection technique that helps in understanding individuals' perceptions and preferences regarding various items, such as products, people, and species (Yu, P. L. H., Gu, J., & Xu, H., 2019). This type of data is often gathered by asking individuals to rank a set of items based on specific criteria, with the following scale: 5 for "Rare Problem Encountered," 4 for "Slightly Problem Encountered," 3 for "Limited Problem Encountered," 2 for "Most Problem Encountered," and 1 for "Extremely Problem Encountered."

For Statement of the Problem 3, data will be collected through structured interviews using a guide and analyzed thematically.

Ethical Considerations

Ethical considerations of this research focused on the requirements of voluntary participation, inform consent, confidentiality, and the personal safety of the participants. Each were discussed both as ethical norms and the practical steps that will be taken during the research process as to their adherence.

Before participating in the research, the selected respondents were informed of the general purpose of the research, and the time length that the interview or survey will take. Research participants were provided with a copy of their inform consent to participate in the research. Contents are thoroughly explain in the language or dialect they fully understand including the advantages and risks of their participation.

Participation in this study is voluntary. The participants were inform that they may decline to answer the question for any reason. Should the respondents wish to withdraw from this study, they may

verbalize their intent to the researchers and/or return the unfinished questionnaire. Nonetheless, strict confidentiality and anonymity is maintain.

Permission from the respondents will ask to record the discussion. All participation is voluntary and no monetary were paid to the respondents. However, simple tokens were given for their participation.

The researchers were not revealing any confidential information given by the respondents to any person, such as the research adviser, members of the panel, friends, colleagues, and anyone else without the permission of the respondents. Only the researchers can handle the sensitive information revealed and no other person, not even the members of the panel and adviser know about these.

Further, the researchers are going to protect the data obtain from the interview and the assessment perception of the respondent. Interested parties or agencies who would like to use the data must seek prior approval from the participants and show written evidence of the permission.

RESULT AND DISCUSSION

This presents, analyzes, and interprets the findings of the collected data on "The Effectiveness of No-Contact Apprehension Policy for Traffic Violators." This also provides the implications of the responses of the participants.

The Level of Effectiveness of the No-Contact Apprehension Policy in Terms of Instilling Discipline to Motorist

The quantitative findings on the level of effectiveness of the no-contact apprehension policy during its implementation, as a result, table 2, has a weighted mean of 2.83 interpreted as effective, this indicates that the implementation of the no-contact apprehension policy has been widely perceived as effective in influencing motorists' behavior and improving traffic management.

The data shows that the no-contact apprehension policy has emerged as a promising approach to improving road safety and traffic management by leveraging technology to enforce traffic rules and regulations by directly affecting motorist behavior while using the traffic way. The obstruction impact of consistent and automated observing likely adds to the behavioral change of the driver, as drivers become more aware of their activities. This adjustment of behavioral conduct advances more secure driving practices as well as adds to a more precise and unsurprising traffic event.

Table 2. The Level of Effectiveness of the No-Contact Apprehension Policy in terms of Instilling Discipline to Motorist

No.	Indicators	Mean	Verbal Interpretation
1	The implementation of the no-contact apprehension policy has positively influenced the motorist on their adherence to traffic rules and regulations	2.82	Effective
2	The no-contact apprehension policy has promote a sense of responsibility and discipline in their driving behavior	2.82	Effective
3	The use of no-contact apprehension has instilled discipline among motorists in following traffic rules and regulations	2.84	Effective
4	The no-contact apprehension policy reduce the reckless driving behaviors among motorist	2.84	Effective
5	The no-contact apprehension policy serves as a deterrent to traffic violations	2.84	Effective

6	The no-contact apprehension policy has a fair and just method of instilling discipline among motorist	2.84	Effective
7	The no-contact apprehension policy has increased the efficiency of traffic management	2.84	Effective
8	The no-contact apprehension policy is an effective way to reduce road accidents and ensure road safety.	2.84	Effective
9	The implementation of the no-contact apprehension policy is necessary to promote discipline among drivers.	2.84	Effective
10	The use of no contact apprehension technology has effective to enforce traffic rules and regulations	2.84	Effective
	Weighted Mean	**2.83**	**Effective**

As shown in the table, the indicators: The use of no-contact apprehension has instilled discipline among motorists in following traffic rules and regulations; The no-contact apprehension policy reduce the reckless driving behaviors among motorist; The no-contact apprehension policy serves as a deterrent to traffic violations; The no-contact apprehension policy has a fair and just method of instilling discipline among motorist; The no-contact apprehension policy has increased the efficiency of traffic management; The no-contact apprehension policy is an effective way to reduce road accidents and ensure road safety; The implementation of the no-contact apprehension policy is necessary to promote discipline among drivers; and The use of no contact apprehension technology has effective to enforce traffic rules and regulations recorded an area mean of 2.84 all of which are interpreted as effective. When drivers know that violations are being monitored and enforced even without direct human interaction, they become more conscious of their driving habits. This heightened awareness leads to more consistent compliance with traffic laws, as drivers aim to avoid penalties. Consequently, the overall driving culture shifts towards safer and more orderly behavior on the roads, reducing the likelihood of accidents and promoting smoother traffic flow.

These findings show that improving a policy by the integration of technology has some positive impact on the behaviors of motorists. Strom (2017) cited that policing agencies have implemented an array of technological advancements to improve operational efficiency and outcomes, and it has direct bearing on how the public reacts to the policy. Similarly, new innovations are piloted every day in a desperate attempt to sell what the masses will buy—tools to make our daily lives easier. As older generations warm to the idea of utilizing technology in the face of a pandemic, we move eerily closer to a world where social interaction is primarily digital (Burges & Burges, (2024). Certainly, technology, innovation has direct impact on human behavior. As cited by Kumar (2023, technological innovation brings many benefits to citizens of whole world though the mobility of technology and also mobility become easier through technology so an integrated technology integrates every mode of transportation and it offers every service provider, stockholder and end user with a common operating image across the entire transit ecosystem.

In influencing human behavior to respond positively to traffic regulations, policymakers need to integrate technology and innovation to ensure that an added protection for both the enforcers and civilians are ensured. Davila-Montero et al. (2021) suggested that advanced technologies offer opportunities to improve social awareness and self-awareness through the recognition and interpretation of human behaviors, contributing to a better understanding of social interactions.

The Level of Effectiveness of the No-Contact Apprehension Policy in terms of Preventing Traffic Build-Up

As gleaned from table 3, a 2.72 area mean was obtained which is interpreted as effective which suggests that the no-contact apprehension policy is successful in preventing traffic build up. This effectiveness indicates that by reducing the need for physical stops and manual interventions by

traffic enforcers, the policy helps maintain a smoother flow of vehicles on the roads. Automated detection and ticketing of traffic violations ensure that enforcement is carried out without disrupting traffic, thereby minimizing the delays and congestion typically associated with on-the-spot penalties. Consequently, drivers experience fewer interruptions, leading to more efficient travel times and less frustration during their commutes. The no-contact policy generally contributes positively to traffic management, although there is room for improvement in reducing traffic build-ups.

Tailgating, aggressive driving, speeding, and sudden lane changes can all cause accidents and slow traffic flow. Similarly, distracted driving, like texting while driving, can also lead to accidents, causing congestion and backups on otherwise congestion-free roads (The Real Causes of Traffic Congestion and How to Help Your Fleet, 2024).

Table 3. The Level of Effectiveness of the No-Contact Apprehension Policy in terms of Prevent traffic build-up

No.	Indicators	Mean	Verbal Interpretation
1	The use of no contact apprehension technology reduced the traffic build-up on roads	2.78	Effective
2	That no contact apprehension technology reduced the number of reckless drivers on the road, thereby reducing traffic congestion	2.75	Effective
3	The implementing a system of automatic fines for traffic violations detected through no contact apprehension help reduce traffic build-up	2.69	Effective
4	The use of no contact apprehension technology reduce traffic congestion	2.75	Effective
5	The no contact apprehension technology is reducing traffic build-up during peak hours	2.64	Effective
6	The use of no contact apprehension technology reducing traffic build-up in high-density urban areas	2.77	Effective
7	The use of no contact apprehension technology help improve traffic flow on highways and major thoroughfares	2.96	Effective
8	The use of no contact apprehension technology help reduce the incidence of traffic accidents and breakdowns that contribute to traffic build-up	2.49	Moderately Effective
9	The use of no contact apprehension technology help promote greater adherence to traffic rules and regulations, thereby reducing traffic congestion	2.59	Effective
10	The no contact apprehension technology is reducing the environmental impact of traffic build-up and congestion	2.74	Effective
	Weighted Mean	2.72	Effective

All these negative behaviors could be easily checked when people are aware of an existing technology that captures every violation they could commit while on the road thereby, easing traffic build-up. The indicator "The use of no contact apprehension technology reduced the traffic build-up on roads" has a 2.78 weighted mean suggests a perception that this technology is marginally effective in achieving its intended goal. This interpretation indicates that while the no-contact apprehension technology contributes to reducing traffic congestion to some extent, its effectiveness may vary or be perceived inconsistently among different segments of the population. Factors influencing this perception could include the coverage and deployment of the technology, its integration with existing traffic management systems, and the visibility of its benefits in day-to-day traffic conditions.

It is also observed that the indicator "The use of no contact apprehension technology helps improve traffic flow on highways and major thoroughfares," which has a weighted mean of 2.96, signifies that this technology is generally perceived as effective in enhancing traffic flow. This rating suggests that the implementation of no-contact apprehension systems has successfully contributed to smoother traffic conditions on highways and major roads. Drivers likely appreciate the reduced disruptions caused by traditional physical stops, allowing for more continuous movement and potentially decreasing overall travel times. This positive perception indicates that the technology is making a discernible impact in optimizing traffic management strategies and improving the efficiency of road networks.

In the study of Stanojević et al. (2013), he provided evidence of connections between the level of police enforcement and both driving behavior and the number of traffic accidents. However, presence of traffic enforcers alone is not guarantee of compliance and that they should be aided by technology to increase the positive impact of traffic enforcement. Durnford, K. (2023) also highlights the importance of developing enforcement strategies designed to maximize deterrence whilst increasing both the perceived and actual probability of apprehension. Similarly, Snider (2022) claims that enforcement alone will not solve the traffic safety crisis. We cannot simply enforce, build, design or educate our way out of this problem. The Safe System necessitates a comprehensive approach for achieving our collective goal of zero traffic deaths, including equitable enforcement that focuses on risky driver choices that endanger all road users.

The Level of Effectiveness of the No-contact Apprehension Policy in terms of Prevent Graft and Corruption or Kotong Practices

As shown in table 4, the weighted mean of 2.71 was recorded which is interpreted as effective. This suggests that the no-contact apprehension policy is successful in curbing graft and corruption among traffic enforcers. This policy minimizes the direct interactions between motorists and traffic officers, thereby reducing opportunities for corrupt practices such as bribery and extortion. Automated systems like traffic cameras and automated license plate recognition (ALPR) handle the detection and penalization of traffic violations, ensuring that enforcement is carried out uniformly and impartially. The elimination of discretionary power that human enforcers might misuse fosters a fairer and more transparent traffic enforcement process. It has been noted that history has a lot to offer in terms of documented traffic enforcers and policemen alike suspended or dismissed from service on allegations of corruption in the streets.

Table 4. The Level of Effectiveness of the No-contact Apprehension Policy in terms of Prevent Graft and Corruption or Kotong Practices

No.	Indicators	Mean	Verbal Interpretation
1	The no-contact apprehension policy contributes to a reduction in opportunities for bribery and corruption among traffic enforcers	2.81	Effective
2	The no-contact apprehension policy minimized the instances of graft and corruption within the traffic enforcement system	2.69	Effective
3	The no-contact apprehension policy act as a deterrent to traffic enforcers engaging in corrupt practices	2.75	Effective
4	The no-contact apprehension policy provide transparency and accountability measures	2.75	Effective
5	The no-contact apprehension system as a fair and unbiased method of traffic law enforcement, reducing the likelihood of corrupt practices	2.64	Effective

6	The no-contact apprehension policy ensures equal treatment of all motorists, minimizing favoritism and corruption	2.75	Effective
7	The no-contact apprehension policy contribute to a more accountable and corruption-free traffic management system	2.96	Effective
8	The no-contact apprehension policy promotes a culture of integrity and ethical behavior among traffic enforcers	2.49	Moderately Effective
9	The no-contact apprehension policy as a proactive measure to prevent graft and corruption in traffic management	2.59	Effective
10	The no-contact apprehension policy contributes to building public trust in the fairness and integrity of traffic law enforcement	2.63	Effective
	Weighted Mean	**2.71**	**Effective**

From the table, the indicator, "The no-contact apprehension policy contribute to a more accountable and corruption-free traffic management system" with a mean of 2.96 interpreted as effective appears to be the very explanation as to why the no contact policy is effective in addressing corruption.

This is precisely because; the physical contact between the police and the road user offers an opportunity for corruption to flourish. In the study of Oleinik (2016), he found out that contacts with traffic police officers represent a key source of corruption. The finding also established a link between corruption in the traffic police and road safety. Corruption in the traffic police has a positive impact on road safety and it suppresses economic growth and thus reduces the intensity of road use. The no-contact apprehension policy's effectiveness in preventing graft and corruption can be understood through the deterrence theory which posits that individuals are less likely to engage in illegal or unethical behavior if they believe the chances of being caught and punished are high. The certainty, severity, and swiftness of punishment are key factors in deterring misconduct.

Automated systems provide transparent and tamper-proof evidence of violations, which can be reviewed and audited. This transparency increases accountability and reduces the chances of corrupt practices going unnoticed (Sakashita, et.al.,2021). By removing human discretion from the enforcement process, NCAP limits the ability of traffic enforcers to solicit bribes or engage in other forms of corruption. The consistent and impartial nature of automated systems ensures fair enforcement of traffic laws. When the public perceives that traffic enforcement is fair and unbiased, trust in the system increases. This trust can lead to higher compliance with traffic laws, further reducing opportunities for corruption.

The Level of Effectiveness of the No-Contact Apprehension Policy in Terms of Tool in Enforcement of Traffic Rules and Maintaining Orders on the Road

Table 5 presents the level of effectiveness of the no-contact apprehension policy in terms of tool in enforcement of traffic rules and maintaining orders on the road. From the table, it shows a weighted mean of 2.92 interpreted as effective, indicating a positive reception from the public regarding its impact. This rating suggests that the technologies and systems used, such as speed cameras, red-light cameras, and automated license plate recognition, are perceived as successful in ensuring compliance with traffic regulations and promoting safer driving behaviors.

Table 5. The Level of Effectiveness of the No-Contact Apprehension Policy in Terms of Tool in Enforcement of Traffic Rules and Maintaining Orders on the Road

No.	Indicators	Mean	Verbal Interpretation
1	The no-contact apprehension policy is effective in enforcing traffic rules and regulations	3.04	Effective

2	The ability of no-contact apprehension is to ensure consistent and impartial enforcement of traffic laws	3.06	Effective
3	The use of no-contact apprehension contribute to a safer and more orderly traffic environment	3.06	Effective
4	The no-contact apprehension policy provide clarity and transparency in maintaining order on the road	3.07	Effective
5	The no-contact apprehension system is efficient tool in addressing traffic violations promptly	2.88	Effective
6	The no-contact apprehension policy is an aids in preventing traffic congestion and ensuring smooth traffic flow	2.92	Effective
7	The no-contact apprehension policy contribute to a positive perception of law enforcement and maintaining public order on the roads	3.07	Effective
8	The no-contact apprehension policy is a fair and just method of dealing with traffic violations and maintaining road discipline	2.93	Effective
9	The no-contact apprehension policy as a proactive measure in ensuring the timely resolution of traffic-related issues	2.90	Effective
10	The no-contact apprehension policy promotes a culture of compliance and responsible driving behavior	2.75	Effective
	Weighted Mean	**2.97**	**Effective**

The effectiveness of these tools can be attributed to their ability to consistently and impartially monitor traffic activities, detect violations, and issue penalties without the biases and inconsistencies that can accompany human enforcement. As a result, these tools help maintain orderly traffic flow and reduce the incidence of traffic violations. The public recognizes the benefits of these tools bring in terms of reducing accidents and enhancing the smooth flow of traffic. By minimizing human intervention and potential errors, automated enforcement tools ensure a more systematic and reliable approach to traffic management.

This indicates that the no-contact apprehension policy is generally successful in achieving its goals of enforcing traffic rules and maintaining order on the roads. This is in connection with the findings for table 2 that the policy in itself is sufficient to instill discipline among road users. Accordingly, the No-contact apprehension policy eliminates the need for traffic enforcers to pull over motorists and waste time arguing and serving fines. On top of saving time and effort, reduced human intervention minimizes traffic congestion by keeping vehicle flow smoother and safer (Triangle Tires Philippines, 2024).

From the data, the indicator "The no-contact apprehension policy provides clarity and transparency in maintaining order on the road" recorded the highest mean of 3.07 interpreted as effective. This implies that the policy's effectiveness in providing clarity and transparency suggests that the public perceives the system as fair and unbiased. This perception can lead to increased trust in traffic enforcement authorities and the overall legal system. Incidentally, Nix et al. (2014) found out that greater public trust can result in higher compliance with traffic laws, as citizens are more likely to adhere to rules they believe are enforced impartially. It should be considered that the public trust to the government including the police is constantly shaped by how the police or government enforce laws that include traffic policies. Peterson, Reichert, & Konefa (2017) claims that the legitimacy of traffic laws can increase traffic enforcement effectiveness through public compliance and cooperation.

Additionally, the indicators "The ability of no-contact apprehension is to ensure consistent and impartial enforcement of traffic laws" and "The use of no-contact apprehension contribute to a safer and more orderly traffic environment" were the second highest mean of 3.06 interpreted as effective. This suggests that when the enforcement of the No-contact apprehension policy is consistent, it means that drivers can predict the consequences of their actions, which discourages risky behavior such as speeding, running red lights, and other traffic violations. This predictability promotes safer driving habits and contributes to a more orderly traffic flow, reducing congestion and potential points of conflict.

Problems Encountered in the Implementation of the No-Contact Apprehension Policy

For this Statement of the problem, the findings led to the identification of 5 primary problems encountered in implementing the no-contact apprehension policy ranked in order. Rank 1 is "Inadequate public awareness and education campaigns to inform motorists about the benefits and limitations of the technology, and how it is being used to enforce traffic rules". This was followed by "Difficulty in identifying and prosecuting violators who are not physically present at the time of the infraction". Rank 3 is "Resistance from motorists who are not familiar with the technology and do not trust its accuracy". Rank 4 are "Insufficient training and capacity building for law enforcement officers and other stakeholders involved in implementing and enforcing the policy" and "Lack of coordination and cooperation among different agencies and departments responsible for implementing the policy, leading to confusion and inefficiencies".

For the problem "Inadequate public awareness and education campaigns to inform motorists about the benefits and limitations of the technology, and how it is being used to enforce traffic rules", are usually associated with limited resources and ineffective communication strategies. Since there are many agencies involved in its implementation, it is unclear whether who are in charge with doing certain taskings.

This seemingly overlapping of functions can lead to redundancy, inefficiency, or even conflicts worsened by lack of coordinator among agencies involved. Leonard (2017) posits that lack of collaboration may result in significant delays in the clearing of traffic incidents. Republic Act 10635 also mandates and should also be structured as nodal agencies, i.e., institutions with legal mandates to collaborate.

The second ranked problem is "Difficulty in identifying and prosecuting violators who are not physically present at the time of the infraction". One of the primary issues is the discrepancy between vehicle ownership and driver identity. Traffic cameras capture the license plate of the vehicle, but the owner may not necessarily be the person driving at the time of the violation. This issue is exacerbated by shared or rented vehicles, making it difficult to pinpoint the actual offender. Additionally, ensuring due process is challenging; accused individuals need a clear and fair process to contest the ticket and present evidence, which can be complicated without their physical presence. This scenario could be supported by the procedural justice theory which according to Tan et al. (2021), this theory emphasizes the importance of fair and transparent processes in enforcement. If the process of identifying and prosecuting violators is seen as arbitrary or unfair, public trust in the system erodes, leading to lower compliance and higher contestation rates. Ensuring due process and clear mechanisms for contesting fines is crucial for maintaining procedural justice.

The third ranked problem identified in this study is Resistance from motorists who are not familiar with the technology and do not trust its accuracy. Resistance from motorists unfamiliar with the no-contact apprehension policy and distrustful of its accuracy can stem from several reasons. Primarily, there may be a general lack of understanding about how the technology works and how violations are detected without direct interaction with law enforcement officers. This lack of awareness according to Strom (2017) can lead to skepticism and fear of unfair enforcement or errors in

judgment. Another is that concerns over privacy and data security may arise, especially if the technology involves extensive monitoring or recording of vehicle activities. Lastly, perceptions of inequitable enforcement or biases in targeting certain demographics or areas can further erode trust in the policy.

Past negative experiences of technological failures in other contexts may contribute to a broader distrust of automated enforcement systems. To address this concern, Dwork & Minow (2022) posited that the needed steps to increase trust in automated systems include involvement of broader and diverse stakeholders in decisions around selection of uses, data, and predictors; investment in methods of recourse for errors and bias commensurate with the risks of errors and bias; and regulation prompting competition for trust.

Sharing the last problem are "Insufficient training and capacity building for law enforcement officers and other stakeholders involved in implementing and enforcing the policy" and "Lack of coordination and cooperation among different agencies and departments responsible for implementing the policy, leading to confusion and inefficiencies".

Contribution of the No-Contact Apprehension Program (NCAP) to the Reduction of Corruption Among Traffic Enforcers and Enhancing the Effectiveness of Traffic Management

This section provides a discussion on the contribution of the No-Contact Apprehension Program (NCAP) as a result of the interview conducted among the participants under the Statement of the Problem No. 3(three) on the reduction of corruption among traffic enforcers and enhancing the effectiveness of traffic management. There are 5 main themes that has been generated, These themes were derived from the theme that were generated by the sub-themes that are off-shoot of the codes from the responses of the participants that were interviewed;

Traffic Enforcement and Technology

These days, traffic enforcement is becoming more and more reliant on technical advancements like automated systems and CCTV cameras. By offering and guaranteeing a shred of trustworthy proof, this device improves traffic enforcement proficiencies. It also improves accuracy in identifying offenses and ensures uniform enforcement in various areas. They likewise authorize consistent checking of traffic incidents, empowering traffic officers to immediately respond. As per the investigation of Institute for Transportation and Development Policy, (2024) to decrease traffic gridlocks and accidents, it is basic to have constant information on auto street traffic congestions. This can be accomplished by focusing on calculations that switch signal lights in view of the congestions in order to save their viability, however, issues like data privacy concerns and the need for continuous technological upgrades must be addressed to maintain their effectiveness.

According to participant 1 "*ang purpose po talaga ng No Contact Apprehension is mabawasan ang kutong, ……. hindi na sila nabibiktima ng kutong kung meron man*" (The real purpose of No Contact Apprehension is to reduce corruption, …….. they no longer fall prey to corruption if there are any).

In addition, Participant 2 stress that "*So ang layunin po nyan para maiwasan yung sinasabi nilang graft and corruption*" (So the purpose of the Creation of NCAP is to prevent of what they say graft and corruption). Participant 6 added that "para maiwasan ang corruption sa mga traffic enforcer, kung ang panghuhuli ay no-contact o kaya non-physical" (to prevent corruption among traffic enforcers, if the arrest is non-contact or non-physical). Participant 7 also said that the purpose of the No-Contact Apprehension program is "*para mabawasan ang katiwalian sa kalsada*" (to reduce corruption on the road).

These narratives are suggestive of the fact that when the interaction between traffic violators and traffic enforcers, the opportunity for corruption and bribery is reduced. As participant 8 lamented, "*talagang may kurapsyon kaya para maiwasan ang negosasyon sa driver at sa traffic enforcer, kaya mas magandang hindi nalang sila magkausap*" (there's definitely a corruption from traffic enforcers so as to avoid negotiations with the driver and the traffic enforcer).

Legal and Regulatory Framework

Effective traffic enforcement requires a firm legal and regulatory framework for consistent and equitable application of traffic laws. Clearly stated and well-defined traffic regulations that specify the offences and the associated sanctions should form the backbone of this framework. The incorporation of such technologies as closed-circuit television cameras (CCTV) and automated detection systems is one way that ensures they conform to privacy as well as data protection laws. The practice of security agencies and establishments of reporting to the PNP or barangay officials criminal incidents which happened within their premises and personal information on an alleged traffic violator do not constitute a violation of Republic Act (R.A.) No. 10173, otherwise known as the Data Privacy Act (DPA) of 2012. Regulatory bodies particularly the LTO In the enforcement process, must ensure that machinery is kept under regular maintenance and calibration as well as personnel given right training. In case of MMDA, fine issuing processes, appeals' handling and complaint resolution mechanisms should be open to public scrutiny. Technological advances and evolving traffic conditions require routine reviews and modifications of the framework so as to continue its effectiveness and maintain public confidence in it. Admittedly, participant 2 expressed that "*Di ko po masasabing successful kase nasa process palang kami ng implementation biglang nagbaba ang supreme court ng TRO na ipospone muna yung NCAP nayan para pag aralan kase base sa dami ng reklamo kaya diko masasabi na effective at diko rin masasabi na ineffective talaga siya o hindi*" (I can't say it's successful because we're still in the process of implementation, suddenly the supreme court issued a TRO decided to suspend the NCAP to conduct a thorough study on implementation because of the number of complaints, so it can't be said that it's effective and it can't be said that it's really ineffective or not). In support, participant 13 mentions that they are operating within the legal framework. This goes to show that if it is operating within the legal framework, it is assured that there is legitimacy and acceptance of any system or policy, as it guarantees that actions comply with established laws and regulations. It protects the rights of individuals and entities, ensuring due process and preventing arbitrary enforcement. In addition, adherence to the legal framework builds public trust and confidence, fostering cooperation and compliance with the implemented measures.

Behavioral Impact and Compliance

Behavioral impact and compliance in traffic management refer to how enforcement measures, such as those under NCAP, influence drivers' adherence to rules. Effective enforcement and education can shape safer driving habits, aided by technology like CCTV for accurate monitoring. Public trust grows when enforcement is fair and safety-focused, fostering long-term behavioral changes and improving overall road safety. This is clearly shown from the result of interview with participant 4. He said "*I think it's more of instilling discipline to the drivers in the absence of traffic enforcers. Kasi sa kultura natin dito sa Pilipinas, sumusunod lang ang mga driver kapag may traffic enforcer. So, by the presence of the cameras, they are forced to follow the traffic rules regardless kung may traffic enforcer na nanonood sa kanila*" (I think it's more of instilling discipline to the drivers in the absence of traffic enforcers. Because in our culture here in the Philippines, the drivers only follow when there is a traffic enforcer. So, by the presence of the cameras, they are forced to follow the traffic rules regardless if there is a traffic enforcer watching them). Participant 5 on the other hand claims that "they really follow the rules because they don't want to violate NCAP". But while compliance is expected to those who are aware, participant 9 also shared that "*Sa akin, hindi e kasi marami paring hindi nakakasunod e, Yung information discimination na maipapatupad sa palagay ko magiging*

effective, hindi kasi hindi bigyan ng tamang information ang mga tao so hindi sya nakatulong" (To me, it's not because many people still don't follow through, I think the information dissemination that can be implemented will be effective, it's not because people weren't given the right information so it didn't help).

Transparency and Trust

The aspect of transparency and the aspect of trust are absolutely critical in getting right the process of no-contact apprehension policy enforcement within traffic law enforcement. To these, it is agreeable to note that there is need for effective communication and public awareness. Preparatory activities should comprise elaborate educational promotional campaigns aimed at making drivers aware of what NCAP is all about, why it has been instituted, and what is expected out of it as that is the only way people will be willing to support such a course or comply. Ambitious traffic education through websites, mobile apps, and public service announcements call programs that give information about traffic rules, the function of NCAP, and motorists' rights can also increase understanding and acceptance of such systems.

As for participant 13, "*Para saakin sa transparency at accountability transparent yan kapag pinatupad nang maayos sana pinatawag muna kame sa transport association para e design ang mga penalty's bago implement"*. (For me, in terms of transparency and accountability, if it is implemented properly, they must convene us in the transport association for the penalty to be imposed). The No Contact Apprehension Policy (NCAP) implemented by the Metro Manila Development Authority (MMDA) has faced criticism for imposing exorbitant penalties on violators. The policy, which uses CCTV cameras to capture traffic violations and issues fines without direct interaction between traffic enforcers and motorists, has raised concerns about fairness and due process. For instance, some public utility vehicle (PUV) operators have complained about high fines and the difficulty of contesting violations, leading to calls for a review of the policy (RAPPLER, 2022) (philkotse.com, 2022)

Improvement in Traffic Management.

There seems to be an improvement in the traffic management when NCAP was implemented. As narrated by participant 3, "there is a significant improvement on traffic management aspect of the city improved tremendously".

Participant 5 also noted that there was efficiency in the resource management. He mentioned that "We lack resources in the areas we need. So, if there is an NCAP, instead of putting an enforcer, we will supervise the area through NCAP, We don't need to put an enforcer to regulate the flow of traffic. All motorists will obey traffic flow and area regulations. So, in the implementation here in QC, overall, our drivers follow the traffic rules and regulations. Whether it's private or public, they really follow the rules because they don't want to violate NCAP. Because with NCAP, they don't have to explain to the enforcer, They don't have to explain anything"

In addition, participant 6 added that "*ito ay isang malaking pagpapabuti sa pagiging epektibo ng pamamahala ng trapiko. Una sa lahat, ito ay magpapabilis sa proseso, Ikalawa, magbabago ang ugali ng mga driver, Tataas ang road safety concern ng driver dahil sa pagpapatupad nitong no-contact apprehension*" (Yes, this is a huge improvement in the effectiveness of traffic management. First of all, this will speed up the process, Second, the behavior of drivers will change, The driver's road safety concern will increase due to the implementation of this no-contact apprehension). The TopGear.com.ph. (2022), in their article Everything you need to know about Quezon City's no-contact apprehension program explain that within 14 days the driver should settle its violation, the QC TTMD also created a link for the driver to monitor if they have a violation registered by NCAP, and to be contested to the Adjudication Board.

The implications of these statements are multidimensional, stressing the importance and effectiveness of the no-contact apprehension policy (NCAP) in relation to traffic management. Thus, the Participant 5 notes that NCAP provide in limiting human resources, allowing them to focus on some areas of concerns that NCAP is not applicable. This results in the development of obedience among motorist, both private and in public utility vehicles, who choose to avoid the traffic violations and the need for explanations to enforcers due to the presence of NCAP. Thus the Participant 6 adds that NCAP enhances traffic management by speeding up processes and positively influencing driver behavior, leading to increased road safety. It is believed that the implementation of NCAP in Quezon City has led to more efficient resource utilization, better compliance with traffic laws, and improved road safety, reflecting a significant advancement in traffic management effectiveness.

Summary of Findings

The overall data showing the level of effectiveness of the no-contact apprehension policy. Considering all aspects evaluated, the overall effectiveness of the "No Contact Apprehension Policy" demonstrates that the no-contact policy appears to be effectively achieving its intended goals, which include disciplining motorists, reducing physical apprehension, combating corruption, and maintaining traffic order. The fact that the overall rating indicates a generally positive level of effectiveness, it indicate that the policy has a beneficial impact, therefore, the NCAP represents a significant step forward in modernizing traffic management. However, it's important to note that while the overall rating is effective, there may still be room for improvement in specific aspects or areas where the policy could be enhanced further, this includes; transparency, public awareness, and the operational efficiency of the policy to enhance its acceptance and perceived effectiveness. Addressing these concerns could help improve the policy's overall effectiveness and public trust, thereby better achieving its goals of discipline, reduced traffic build-up, and the prevention of corruption.

This could be supported by the social control theory which posits that individuals are motivated to conform to societal norms and rules through various forms of social control, such as rewards and punishments (Vogel & Messner, 2023). The policy's effectiveness in promoting discipline among motorists and curbing corruption can be attributed to its adept utilization of social control mechanisms. The imposition of penalties and the promotion of compliance serve as powerful motivators for inducing behavioral change. Lin et al. (2017) in their research shows that many innovative applications, such as optimal traffic signal control, safe intersection crossing, and emergency alert notifications can enhance travel efficiency, increase public safety, improve emergency response procedures, and significantly improve citizens' quality of life.

CONCLUSION

The No-Contact Apprehension Policy for traffic violators has shown to be successful with an over all weighted mean of 2.79 during its implementation, it imparts discipline among drivers, minimized the occurrence of physical apprehension to prevent traffic build-up, prevent corruption, and tool in enforcement of traffic rules and maintaining orders on the road, by anticipating traffic congestions, the strategy guarantees a smoother stream of vehicles, as it wipes out the requirement for actual apprehension and manual intercessions by traffic enforcers. This NCAP facilitates the smooth flow of traffic without apprehension by traffic enforcers that may cause traffic obstructions. Moreover, it eradicates corruption and police/MMDA/LTO bribery since the enforcers have less direct contact with motorists, restricting them from extorting money from motorists. It is however astonishing that the high success rate of the No-Contact Apprehension Policy has been overwhelmed by several problems majorly attributed to lack of public awareness and insufficient educational campaigns. The issue remains that numerous drivers know nothing about the advantages and limits of the innovation, prompting disarray and opposition.

The interview concluded that the implementation of the no-contact apprehension policy has notably contributed to reducing corruption among traffic enforcers and enhancing overall effectiveness of traffic management. There are 5 main themes that has been generated that includes (a)Traffic Enforcement and Technology; traffic enforcement is becoming more and more reliant on technical advancements (b) Legal and Regulatory Framework; Effective traffic enforcement requires a firm legal and regulatory framework for consistent and equitable application of traffic laws. (c) Behavioral Impact and Compliance; Behavioral impact and compliance in traffic management refer to how enforcement measures, such as those under NCAP, influence drivers' adherence to rules. (d) Transparency and Trust; To these, it is agreeable to note that there is need for effective communication and public awareness. (e)Improvement in Traffic Management; There seems to be an improvement in the traffic management when NCAP was implemented.
Thus, the No-Contact Apprehension Program (NCAP) has positively impacted on the fight against corruption among traffic enforcers and also it is an effective traffic management systems.

They said that NCAP have enhanced enforcement capacity, offered credible proof, and standardized enforcement practices. The level of interaction that has been brought down by automation enforcement of traffic laws has in essence reduced corruption, increased efficiency, and brought in accountability and fairness.
However, at the same time, there are some drawbacks, or, in other words, some challenges which may be faced, for example, the problems with data privacy protection, the CCTV replacement due to human damage; or the problem with monitoring due to the broken or, often, even missing CCTV equipment. Such indications suggest that these challenges must be solved in order to continue increasing the effectiveness of the NCAP.
In general, the No-Contact Apprehension Policy act emphasizes and improves traffic control and the safety and orderliness of traffic practices.

Recommendation

Considering all aspects evaluated, the overall effectiveness of the "No Contact Apprehension Policy" is rated as effective. This demonstrates that the no-contact policy appears to be effectively achieving its intended goals, which include disciplining motorists, preventing traffic build-up, combating corruption, and maintaining traffic order. However, the researchers find a recommendable solution for the re-implementation of this program;

The Traffic and Transport Management Division (TTMD) of Quezon City with the MMDA need to refine the enforcement procedures of the NCAP, increasing transparency in operations, establishing a consistent application of the policy across the City to include training of personnel, to include the involvement of the different transport Association, community involvement like the barangay officials and barangay tanod to address their concerns and feedback that can significantly improve public perception and acceptance.

To address the insufficiency of public awareness and the traffic awareness and education campaigns, it is vital to develop well-define and continuous educational traffic programs to inform motorists about the benefits and positive effect of the no-contact apprehension technology. These movements should include description of how the technology functions, which includes traffic rules and how the NCAP implemented to include the guidelines when apprehended. The LGU must use the various forms of media including, social media, television, radio, and community-based programs could be of great importance in information dissemination. Therefore, in order to get firsthand information and/or seek clarification on certain issues, a common program of workshops and seminars can cover the concerned City local government units, MMDA, transport Association, Community and civic organizations. Since the no-contact apprehension policy is made public for the people become more aware of it, they are likely to obey it and believed to have improved the policy efficiency.

Given the findings, it is highly recommended to re-implement the NCAP (No-Contact Apprehension Policy). This has led to increased rates of traffic offenses and other undisciplined conducts on the road since the period of executing the temporary restraining order (TRO) by the Supreme Court. This has been made worse by the lack of automated monitoring and enforcement of traffic laws. The absence of this policy has led to the cases mentioned above the reinstitution of the NCAP would effectively solve these problems by ensuring equal enforcement and discouragement to those would be violators.

Furthermore, the study recommends that the above findings should be taken to the Office of the City Mayor to possibly discuss the results of the study. This dialogue would afford the researchers to present the findings of this study to include the emerging trend and benefits related to the No-Contact Apprehension Policy and map out a plan for its re-implementation in the city. Thus, the Traffic and Transport Management Division (TTMD), MMDA officials, different transport Association and the community (stakeholders) can ensure that this policy will be reintroduced with caution and can reestablish the policy into the society in such a way that it will not have the same problem that it faced in the previous implementation and it should also increase the public awareness of the policy and the effectiveness in traffic discipline and traffic violations reduction. It helps to fit the policy to the specifics of the city and guarantee its proper implementation.

REFERENCES

Badua, J. B. (2021). Implementation of RA 10586 (Anti-drunk and Drugged Driving Act of 2013). International Journal of English Literature and Social Sciences (IJELS), 6(3).

Burns, T., & Roszkowska, E. (2016). Rational Choice Theory: toward a psychological, social, and material contextualization of human choice behavior. Theoretical Economics Letters, 06(02), 195–207. https://doi.org/10.4236/tel.2016.62022

Creswell, J. W., & Plano Clark, V. L. (2017). Designing and conducting mixed methods research. Sage publications.

Crimmins, J. (2001). Utilitarian Social Thought, History of. In Elsevier eBooks (pp. 16107–16111). https://doi.org/10.1016/b0-08-043076-7/00099-1

Dadios, E. P. Et., Al.,(2020). IEEE(international conference on humanoid, nanotechnology, information technology, communication and control, environment, and management). Classification between pedestrians and motorcycles using fasterRCNN inception and SSD MobileNetv2. In 2020 IEEE Manila, Philippines, 2020, pp. 1-6, doi: 10.1109/HNICEM51456.2020.9400113.

Davila-Montero, S., Dana-Le, J. A., Bente, G., Hall, A. T., & Mason, A. J. (2021). Review and Challenges of Technologies for Real-Time Human Behavior Monitoring. *IEEE Transactions on Biomedical Circuits and Systems*, *15*(1), 2–28. https://doi.org/10.1109/tbcas.2021.3060617

Kumar, D. K. (2023). Impact of technology on human being and it's behaviors. International Journal of Creative Research Thought, 11(3).

Leonard, D. L. (2017). Incident Traffic Management Response - ProQuest. https://www.proquest.com/openview/8ae3cfd18006906f794ccf30e0203e50/1?pq-origsite=gscholar&cbl=18750

Lin, Y., Wang, P., & Ma, M. (2017). Intelligent Transportation System(ITS): Concept, Challenge and Opportunity. *IEEE 3rd International Conference on Big Data Security on Cloud*. https://doi.org/10.1109/bigdatasecurity.2017.50

Olivarez, E. L (2022). House of Congress. House Bill 143, Nineteenth Congress, First Regular Session. https://hrep-website.s3.ap-southeast-1.amazonaws.com/legisdocs/basic_19/HB00143.pdf

Paras, K. R. S., Et., Al., (2022). Middle East Journal of Applied Science & Technology. No Shoes, No Travel Policy in Ozamiz City: A Case Study.

Peterson,E. Reichert, J. & Konefa, K. (2017). https://icjia.illinois.gov/researchhub/articles/procedural-justice-in-policing-how-the-process-of-justice-impacts-public-attitudes-and-law-enforcement-outcomes

Republic Act 10635 | Official website of MARINA STCW Administration Office. (n.d.). https://stcw.marina.gov.ph/republic-act-10635/

Sakashita, C. Fleiter, J.J, Cliff, D., Flieger, M., Harman, B. & Lilley, M (2021). A Guide to the Use of Penalties to Improve Road Safety. Global Road Safety Partnership, Geneva, Switzerland.

Sato, Y. (2013). Rational Choice Theory. - References - Scientific Research Publishing. (n.d.). https://www.scirp.org/reference/referencespapers?referenceid=2773304

Shoaib, M., Et., Al., (2022). Performance of academic staff during COVID-19 pandemic-induced work transformations: An IPO model for stress management. Economies, 10(2), 51.

Stanojević, P., Jovanović, D., & Lajunen, T. (2013). Influence of traffic enforcement on the attitudes and behavior of drivers. Accident Analysis and Prevention, 52, 29–38. https://doi.org/10.1016/j.aap.2012.12.019

Strom, K. S. (2017). Research on the Impact of Technology on Policing Strategy in the 21st Century, Final report. In NAtional Criminal Justice Refence Service (No. 2012-MU-CX–0043). US Department of Justice.

Tan, Y., Zhang, Y., Zhong, Q., Zhang, G., & Fu, Y. (2021). Research on road safety policy in the Guangdong-Hong Kong-Macao Greater Bay Area. In Springer eBooks (pp. 175–205). https://doi.org/10.1007/978-981-16-0701-1_10

The real causes of traffic congestion and how to help your fleet. (2024, May 7). Cartrack Indonesia. https://www.cartrack.id/en/real-causes-traffic-congestion-and-how-help-your-fleet-avoid-them

Uy, A. C. P., Quiros, A. R. F., Bedruz, R. A., Abad, A., Bandala, A., Sybingco, E., & Dadios, E. P. (2016, November). Automated traffic violation apprehension system using genetic algorithm and artificial neural network. In *2016 IEEE Region 10 Conference (TENCON)* (pp. 2094-2099). IEEE.

Yu, P., Gu, J., & Xu, H. (2019). *Analysis of ranking data*. https://hub.hku.hk/handle/10722/275757

Vogel, M., & Messner, S. F. (2023). Group threat and social control: Who, what, where, and when. *Annual Review of Criminology*, *7*(1). https://doi.org/10.1146/annurev-criminol-022222-033042

AL-Qadri, A. H., Zhao, W., Li, M., Al-khresheh, M., & Boudouaia, A. (2022). Emotional intelligence scale for international students: a Proposal for a developed version. *Frontiers in Education*, 7,853303.https://doi.org/10.3389/feduc.2022.853303

Al-khresheh, M. H., & Orak, S. D. (2021). The Place of Grammar Instruction in the 21st Century: Exploring Global Perspectives of English Teachers towards the Role of Teaching Grammar in EFL/ESL Classrooms. *World Journal of English Language*, *11*(1). https://doi.org/10.5430/wjel.v11n1p9

Helaudho, B., Mukhtar, S., & Pahala, I. (2024). Optimizing Performance: The Role of Job Rotation in Employee Motivation and Satisfaction. *Pakistan Journal of Life & Social Sciences*, *22*(2).

Waheed, M., & Jam, F. A. (2010). Teacher's intention to accept online education: Extended TAM model. *Interdisciplinary Journal of Contemporary Research in Business*, *2*(5), 330-344.

MMDA Resolution No. 02-49, (2002). Authorizing The Metropolitan Manila Development Authority To Adopt A "No Physical Contact Policy" In Apprehending Traffic Violators In Metro Manila Thru The Use Of Digital Camera. https://mmda.gov.ph/13-legal-matters/mmc-resolutions/94-mmda-resolution-no-02-49. Retrieve September 4, 2023

Administrator. (2017, May 29). DOST-PCIEERD, DLSU LAUNCH CONTACTLESS APPREHENSION FOR TRAFFIC VIOLATORS. https://pcieerd.dost.gov.ph/news/latest-news/279-dost-pcieerd-dlsu-launch-contactless-apprehension-for-traffic-violators

TopGear.com.ph. (2022, June 28). Everything you need to know about Quezon City's no-contact apprehension program. https://www.topgear.com.ph. https://www.topgear.com.ph/features/feature-articles/quezon-city-no-contact-explainer-a2619-20220627

Bolledo, J. (2022, August 31). EXPLAINER: What is the No Contact Apprehension Policy and why is it being suspended? RAPPLER. https://www.rappler.com/nation/explainer-no-contact-apprehension-policy-reasons-suspension-implementation/

Manila, P. M. (2022, December 16). *Towards a Better Normal: Philippine Government reorganises EDSA main road – Bus Service Modernisation*. Changing Transport. https://changing-transport.org/reorganisation-edsa-main-road/

Abejo, T. (2023, February 4). How motorists, public benefitted from No Contact Apprehension Policy. Philstar.com. https://www.philstar.com/news-commentary/2023/02/04/2242541/how-motorists-public-benefitted-no-contact-apprehension-policy

Durnford, K. (2023, February 6). *Strategies for Effective Leadership in Law Enforcement*. InTime. https://intime.com/industries/police/strategies-for-effective-leadership-in-law-enforcement/

Inquirer, P. D. (2023, March 12). Public interest should be primordial in no-contact apprehension policy | Inquirer Opinion. INQUIRER.net. https://opinion.inquirer.net/161591/public-interest-should-be-primordial-in-no-contact-apprehension-policy

Leyba, L. (2024, January 20). Traffic management using AI in law enforcement. https://www.linkedin.com/pulse/traffic-management-using-ai-law-enforcement-levi-leyba-obh7c/

Burgess, J., & Burgess, J. (2024, March 12). How has technology affected social interaction? Sogolytics Blog. https://www.sogolytics.com/blog/how-has-technology-affected-social-interaction/

Institute for Transportation and Development Policy. (2024, May 26). Traffic reduction - Institute for Transportation and Development Policy. Institute for Transportation and Development Policy - Promoting Sustainable and Equitable Transportation Worldwide. https://itdp.org/our-work/traffic-reduction/

Triangle Tires Philippines. (2024, May 23). No contact apprehension policy explained. https://triangletiresph.com/news-and-events/no-contact-apprehension-policy-philippines/