Online ISSN: 3082-5121
https://aijsseaf.com
Volume 2 Issue 11 (2026)

Aloysian Interdisciplinary Journal
of Social Sciences, Education, and Allied Fields

Platform Support and Safety Training on Crime Reduction among Motorcycle Taxi Riders in Quezon City

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Publication Date: November 25, 2026 DOI: **10.5281/zenodo.24518556**

Abstract

This study aims to examine the level of platform support and safety training and their relationship to crime reduction among motorcycle taxi riders in Quezon City. Specifically, platform support was evaluated through digital safety features (SOS emergency button and in-house safety emergency hotline) and resource accessibility (safety guidelines and health/accident insurance coverage). Safety training assessed structured safety training programs and anti-crime awareness training. Utilizing a descriptive-correlational research design, data were gathered through a structured survey questionnaire administered to 80 active motorcycle taxi riders in Quezon City who met the inclusion criteria of being at least 25 years old with at least two years of riding experience, selected via combined quota and convenience sampling. For data treatment, weighted mean was utilized for descriptive analysis, while Spearman's rank-order correlation coefficient (Spearman's rho) was applied to test the significant relationship between the independent variables and crime reduction concerning robbery, physical assault, and carnapping/carjacking attempts at a 0.05 level of significance. The results reveal that the general assessments for both platform support and safety training yielded a verbal interpretation of "Strongly Agree," indicating that transport network platforms provide adequate safety tools, accessibility, and driver orientations. However, statistical testing of the relationship between these variables and crime reduction yielded no significant relationship, leading to the acceptance of the null hypothesis Ho.

The study concludes that while digital emergency features and safety training programs are essential for rider preparedness, occupational security, and institutional support, they do not

Online ISSN: 3082-5121
https://aijsseaf.com
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function as standalone deterrents against external crimes on the road. The reduction of external street crimes is predominantly governed by broader environmental factors, such as police visibility, street lighting, and community safety interventions. Consequently, the study recommends strengthening multi-agency collaboration between transport network companies, local government units, and law enforcement agencies to enhance rapid emergency response and street-level crime prevention strategies.

Keywords: *Motorcycle taxi riders, platform support, safety training, crime reduction, transport network platforms*

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INTRODUCTION

In recent years, two-wheeled ride-hailing and delivery services integrated into transport network platforms have emerged as a key component of public transportation and logistics. “Riders” is the term used to describe drivers operating two-wheeled motorcycle offering these services. Ride-hailing services have become a vital part of the daily lives of Filipinos making it an ideal mode of transportation for most. Consequently, riders continuously capitalize on these opportunities, facilitating bookings late at night and across dangerous transit routes. Unlike automobile drivers, motorcycle taxi riders operate in an open-air environment with minimal physical protection around them, making them susceptible not only to traffic accidents but also to external crimes such as robbery, physical assault, and carnapping/carjacking during their trips. Understanding how platform support and safety training programs collectively prevent external crimes is paramount to ensuring riders’ safety within the ride-hailing industry.

On a global perspective, safety and security vulnerabilities among drivers of transport network platforms gained significant national attention across countries with developing and emerging market economies. Recent empirical studies highlight that transport network drivers internationally face heightened exposure to crime, ranging from verbal disputes and physical assaults to carjacking and armed robbery due to lone working conditions and late-night trips (Akyüz et al., 2022). To mitigate these risks, transport network platforms worldwide have increasingly implemented built-in safety measures, such as emergency SOS features, and mandatory driver safety orientations (Akbari et al., 2021). However, the global persistence of external crimes highlights an urgent need to evaluate how platform support and safety training programs directly contribute to crime reduction and drivers’ protection.

In the Philippines, motorcycle taxis become popular by transport network platforms such as Angkas, Joyride, Move-It and Grab. Through time, they become a prominent mode of public transportation bridging the gaps in Philippine mass transportation network. However, Filipino motorcycle taxi riders face dangerous working conditions every day which made worse by severe traffic congestion, inclement weather and the frequent exposure to street-level criminality. (Land Transportation Franchising and Regulatory Board [LTFRB], 2023). The recent case happened in Caloocan City where a motorcycle taxi rider was brutally stabbed with an ice pick before his vehicle was stolen underscores the operational risks among motorcycle taxi riders. Investigating the joint impact of platform support and safety training programs is crucial for policy refinement and the riders’ welfare in the Philippine ride-hailing sector.

Within Metro Manila, Quezon City is the largest and most populous city and serves as a major point for commercial activities and ride-hailing services (Philippine Statistics Authority [PSA], 2021). As a highly urbanized area, motorcycle taxi riders operating in Quezon City face distinct safety and security challenges specially during late-night shifts within its boundaries including robbery, motorcycle carnapping/carjacking, and aggressive passenger disputes (Quezon City Police District [QCPD], 2023). Although, local government initiatives such as city-wide road safety programs (QC Traffic and Transport Management Department, 2026) advocate for urban crime reduction, examining local motorcycle taxi riders on their reliance to platform support and safety training programs provides essential insights for localized safety intervention strategies.

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The purpose of this research aims to determine the level of platform support and safety training on crime reduction among motorcycle taxi riders in Quezon City. Specifically, the investigation evaluates platform support provided to motorcycle taxi riders through digital safety features (SOS emergency button and in-house safety emergency hotline) and resource accessibility (safety guidelines to avoid external crimes and health/accident insurance coverage). Additionally, it assesses the safety training conducted and how often they are conducted as well as anti-crime awareness training (carnapping/carjacking measures and scam prevention/late-night safety protocols). Further, the study measures the level of crime reduction which riders fall victim such as robbery, physical assault and carnapping/carjacking attempts. Lastly, the findings will serve as the empirical foundation for existing programs and safety training enhancement to reduce crime reductions among motorcycle taxi riders in urban settings.

This study is anchored in the Routine Activity Theory and Situational Crime Prevention (SCP) framework, as contextualized in contemporary literature by Clarke and Eck (2023) as well as Smith, Johnson, and Taylor (2022). According to this perspective, a crime typically occurs when there is a convergence of a motivated offender, a suitable target, and the absence of a capable guardian in a specific time and place.In the modern ride-hailing industry, motorcycle taxi riders operating in urbanized settings such as Quezon City frequently serve as suitable targets due to their open-air driving environment, lone working conditions, and late-night trips. In response to this, Situational Crime Prevention explains that roadside crimes can be deterred by modifying and improving the environment and operational tools, thereby making it harder for wrongdoers to commit offenses.

Within the framework of this study, Platform Support (such as SOS emergency buttons and in-house emergency hotlines) acts as a digital "capable guardian" that provides immediate pathways to assistance and protection. Meanwhile, Safety Training equips riders by enhancing their threat-recognition capabilities and implementing proper precautionary measures along hazardous routes. The integration of these digital supports and structured training aims to collectively mitigate criminal incidents such as robbery, physical assault, and carnapping/carjacking attempts among motorcycle taxi riders.

STATEMENT OF THE PROBLEM

This study evaluates how platform support and safety training influence crime reduction among motorcycle taxi drivers in Quezon City.

Specifically, it seeks to answer the following questions:

1. What is the level of platform support experienced by motorcycle taxi riders regarding:
1.1 Digital Safety Features (SOS emergency button and In-house Safety Emergency hotline); and
1.2 Resource Accessibility (Safety guidelines and health/accident insurance coverage)?

2. What is the level of safety training received by motorcycle taxi riders in Quezon City in terms of:
2.1 Structured Safety Training Programs; and

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2.2 Anti-Crime Awareness Training

3. What is the level of crime reduction observed among motorcycle taxi riders in Quezon City in terms of:
3.1 Robbery, Physical Assault and Carnapping/carjacking Attempts

4. Is there a significant relationship between Platform Support and Crime Reduction among motorcycle taxi riders in Quezon City?

5. Is there a significant relationship between Safety Training and Crime Reduction among motorcycle taxi riders in Quezon City?

6. Based on the findings of the study, what proposed action plan or safety program enhancement may be developed to reduce crimes among motorcycle taxi riders in Quezon City?

LITERATURE REVIEW

Platform Support

Platform support refers to safety features and resources provided by transport network companies to protect riders, including digital features (SOS buttons, emergency hotlines) and accessible resources (safety guidelines, health/insurance coverage). Jaydarifard et al. (2025) highlighted emergency alerts, real-time tracking, and safety procedures as key risk-mitigation measures. In the Philippines, local occupational health and safety research provides a baseline for examining riders' resource access and organizational support. This study assesses platform support through digital safety features and resource accessibility to determine their association with reduced criminal incidents.

Safety Training

Safety training equips riders to recognize threats, manage conflicts, and respond to dangerous situations through structured programs and anti-crime awareness. Jaydarifard et al. (2025) identified inadequate training as a safety concern, emphasizing communication and threat-response modules. Structured training helps riders handle confrontations, while anti-crime awareness fosters situational awareness and reporting mechanisms. This study examines whether riders receiving such training report lower levels of criminal incidents.

Crime Reduction

Crime reduction refers to a decrease in criminal incidents (robbery, physical assault, and carnapping/carjacking attempts) experienced on duty. Contemporary situational crime prevention frameworks emphasize reducing opportunities through targeted environmental and technological interventions (Clarke & Eck, 2023). Given that the effectiveness of these security measures varies based on working conditions, this study evaluates crime reduction specifically among Quezon City motorcycle taxi riders.

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Relationship Between Platform Support, Safety Training, and Crime Reduction

Platform support and safety training complement each other by providing emergency assistance and threat-recognition skills (Jaydarifard et al., 2025; Smith et al., 2022). However, the existence of safety features or training does not automatically equate to crime reduction. This study examines whether significant relationships exist between platform support, safety training, and crime reduction among Quezon City riders.

Synthesis of the Related Literature

The literature synthesizes three primary dimensions:

- **Digital Platform Support:** Real-time GPS, SOS buttons, and hotlines serve as essential safety nets (Castro, 2026; Rahman et al., 2024), bolstering driver confidence (Binghay et al., 2022). However, bridging app technologies to police dispatch creates coordination delays (Panganiban-Perez, 2026), and bureaucratic delays in insurance claims undermine worker welfare (ILO, 2021; Mendoza & Soriano, 2025).

- **Occupational Safety Training:** Structured training and defensive driving are foundational (Fernandez, 2023; WHO, 2021), imparting traffic rules and conflict management (Nguyen & Tran, 2024), while anti-crime training aids risk perception (Gabor, 2021; Respicio & Co. Law Firm, 2026). Nonetheless, training relies heavily on passive digital lectures rather than active law enforcement collaboration (Garcia & Cruz, 2024; PNP-ACG, 2023), with periodic refreshers often under-enforced (Santos et al., 2025).

- **Crime Vulnerability and Environmental Limitations:** Technological tools and training function primarily as reactive crisis-mitigation tools rather than proactive deterrents against street criminality (Castro, 2026; Eck, 2021; Roberts, 2022). Riders remain vulnerable to violent street crimes in unlit spaces (Bautista, 2023; Lopez et al., 2024). Physical street crimes are governed by macro-environmental variables like police visibility and lighting (Clarke, 2020; Wilson & Kelling, 2022); thus, platform support and safety training operate independently of street crime reduction unless paired with active police interventions (PCCP, 2023; Santos, 2023).

Research Gap

While literature covers gig labor precarity and traffic safety, a gap exists regarding the empirical intersection between private platform safety interventions and street-level crime reduction in high-density urban areas like Quezon City. Previous studies analyze safety features and training as corporate compliance mechanisms focused on occupational health or crash avoidance (Defossez, 2022; Izzati & Sesunan, 2022; Novianto et al., 2023). There is a scarcity of research evaluating whether private safety infrastructure and anti-crime training exert a direct impact on suppressing violent street crimes against commercial riders, or addressing the structural disconnect between private apps and public law enforcement frameworks. This study addresses this gap by testing these statistical relationships in Quezon City.

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METHODOLOGY

Research Design

This study utilizes a descriptive-correlational research design to examine platform support, safety training, and their relationship with crime reduction in Quezon City. The descriptive component assesses digital safety features, resource accessibility, training programs, and crime indicators, while the correlational aspect examines variable associations without manipulating variables (Creswell & Creswell, 2023).

Research Locale

The study is conducted in Quezon City, Metro Manila, Philippines—a highly urbanized area with expansive transit networks and high traffic density. It is chosen because open-air exposure, lone working conditions, and late-night trips expose riders to heightened risks, providing direct access to target respondents.

Respondents of the Study

Respondents comprise 80 active motorcycle taxi riders operating within Quezon City across recognized transport platforms. Inclusion criteria require participants to be at least 25 years old, active with a recognized ride-hailing platform in Quezon City, possess at least two years of driving experience, and voluntarily provide informed consent.

Sampling Design

Quota sampling combined with convenience sampling was employed to select the 80 respondents. Quota sampling ensures representation across platform affiliations (e.g., Angkas, JoyRide, Move It) and operating zones, while convenience sampling gathers data from accessible riders at designated terminal hubs until the target sample size is achieved.

Treatment of Data

Instrument reliability was established via pilot testing and Cronbach's alpha. Descriptive statistics (weighted mean via a 4-point Likert scale) were utilized for SOPs 1, 2, and 3. Inferential analysis using Spearman's rank-order correlation coefficient (Spearman's rho) was applied at a 0.05 level of significance for SOPs 4 and 5, while a qualitative synthesis matrix supported SOP 6.

Ethical Considerations

To comply with the Data Privacy Act of 2012 (RA 10173), rigorous standards of informed consent, voluntary participation, and data security were enforced. Participants were briefed on their right to withdraw, personal information was replaced with pseudonyms/codes, and data were stored in password-protected drives before secure disposal, upholding strict academic integrity without data fabrication or plagiarism.

To interpret the gathered data, the researchers assigned numerical weights to the respondents' answers ranging from strongly agree to strongly disagree to calculate the weighted mean, percentages, and frequency distributions.

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Table A. Four-Point Likert Scale for the level of effectiveness of platform support and safety training on crime reduction among motorcycle taxi riders in Quezon City

NUMERICAL SCALE	MEAN RANGE	CATEGORICAL RESPONSE	VERBAL INTERPRETATIONS
4	3.26-4.00	Strongly Agree	Very Effective
3	2.51-3.25	Agree	Effective
2	1.76-2.50	Disagree	Ineffective
1	1.00-1.75	Strongly Disagree	Very Ineffective

RESULTS AND DISCUSSION

This chapter presents, analyzes, and interprets the data addressing the study's objectives, organized according to the Statement of the Problem: platform support levels, safety training received, observed crime reduction among Quezon City motorcycle taxi riders, their significant relationships, and the resulting safety program enhancements.

1. The level of platform support experienced by motorcycle taxi riders regarding Digital Safety Features (SOS button and In-house Safety Emergency hotline); and Resource Accessibility (Safety guidelines and health/accident insurance coverage).

Table 1.1

The level of platform support experienced by motorcycle taxi riders regarding Digital Safety Features (SOS button and In-house Safety Emergency hotline).

INDICATORS	WEIGHTED MEAN	VERBAL INTERPRETATION	RANK
1. I can easily find and use the SOS emergency button in the platform I use.	3.83	Strongly Agree	1
2. The SOS emergency button is effective and helpful to me when I encountered emergency situations on the road.	3.75	Strongly Agree	3
3. The SOS emergency button in the application works properly without lag or errors during critical moments while I am on the road.	3.79	Strongly Agree	2
4. The platform provides reliable assistance in connecting with law enforcement/police when needed.	3.44	Strongly Agree	6
5. The platform's in-house emergency hotline responds swiftly whenever I report immediate crime threats while on duty.	3.75	Strongly Agree	4
6. I feel secure knowing that my platform's emergency features directly link me to police	3.65	Strongly Agree	5

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authorities during dangerous incidents.			
GENERAL ASSESSMENT		**3.70**	**Strongly Agree**
Legend:	*3.26 – 4.00 Very High*		*1.76 – 2.50 Low*
	2.51 – 3.25 High		*1.00 – 1.75 Very Low*

Table 1.1 presents the level of platform support experienced by motorcycle taxi riders in Quezon City regarding Digital Safety Features. The overall general assessment yielded a composite mean of 3.70, interpreted as Strongly Agree. Among the indicators, "*I can easily find and use the SOS emergency button in the platform I use"* obtained the highest weighted mean of 3.83 (Rank 1, Strongly Agree), followed by "*The SOS emergency button in the application works properly without lag or errors during critical moments while I am on the road*" at 3.79 (Rank 2, Strongly Agree). Conversely, "*The platform provides reliable assistance in connecting with law enforcement / police when needed*" recorded the lowest mean of 3.44 (Rank 6, Strongly Agree), suggesting room for improvement despite positive overall views of the SOS button's accessibility and usability.

Based on the statistical findings, motorcycle taxi platforms in Quezon City offer a strong, easy-to-use, and reliable technology-based emergency system, as panic buttons were strongly agreed to be accessible and fast-acting without delay. However, the relatively lower mean score for contacting outside law enforcement indicates a need to improve direct integration with Quezon City police dispatch via the application.

These findings align with contemporary transport technology literature. Castro (2026) stated that digital safety infrastructure—including in-app panic triggers and passenger identity verification—serves as an indispensable operational safeguard for gig workers in high-risk urban environments. Binghay et al. (2022) emphasized that visible and responsive digital security features boost occupational confidence and mitigate risks among riders in the Philippines. Panganiban-Perez (2026) noted that while platform-based emergency hotlines and SOS buttons provide reassurance during late-night shifts, bridging app technologies directly with local law enforcement dispatch remains crucial for rapid incident resolution. Smith and Johnson (2023) argued that real-time emergency responsiveness within mobile applications directly influences worker retention and operational trust. Finally, Rahman et al. (2024) established that real-time location tracking and instant alert channels enhance driver perception of physical security in commercial ride-hailing networks.

Table 1.2

The level of platform support experienced by motorcycle taxi riders regarding Resource Accessibility (Safety guidelines and health/accident insurance coverage).

INDICATORS	WEIGHTED MEAN	VERBAL INTERPRETATION	RANK
1. I can easily access the safety guidelines to avoid external crimes on the road provided by the platform.	3.74	Strongly Agree	2

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2. I am well-informed about all the safety guidelines provided by the platform on how to avoid external crimes.	3.76	Strongly Agree	1
3. I am well-informed about my health and accident insurance coverage provided by the platform.	3.72	Strongly Agree	3
4. I am satisfied with the overall platform support regarding the health/accident insurance coverage provided by my platform.	3.54	Strongly Agree	4
5. I regularly receive updated safety guidelines from my platform on how to respond when facing high-risk scenarios or external crimes.	3.45	Strongly Agree	6
6. I can easily claim or access my health and accident insurance benefits from the platform whenever I encounter road incidents or emergencies while on duty.	3.49	Strongly Agree	5
GENERAL ASSESSMENT	**3.62**	**Strongly Agree**	

Legend: *3.26 – 4.00 Very High* *1.76 – 2.50 Low*
2.51 – 3.25 High *1.00 – 1.75 Very Low*

Table 1.2 outlines the level of platform support experienced by riders in terms of Resource Accessibility, encompassing safety guidelines and health/accident insurance coverage. The general assessment yielded a composite mean of 3.62, interpreted as Strongly Agree. The indicator "*I am well-informed about all the safety guidelines provided by the platform on how to avoid external crimes*" attained the highest mean of 3.76 (Rank 1, Strongly Agree), followed by "*I can easily access the safety guidelines to avoid external crimes on the road provided by the platform*" at 3.74 (Rank 2, Strongly Agree). Conversely, "*I regularly receive updated safety guidelines from my platform on how to respond when facing high-risk scenarios or external crimes*" recorded the lowest mean of 3.45 (Rank 6, Strongly Agree), followed by insurance claim accessibility at 3.49 (Rank 5, Strongly Agree).

The data shows that motorcycle taxi platforms effectively inform riders about basic safety and active insurance policies. However, slightly lower mean scores for regular safety updates and ease of claiming insurance suggest that while policies exist, riders encounter difficulties when claiming medical insurance and receiving real-time security updates.

This outcome is supported by recent studies on occupational welfare. Izzati and Sesunan (2022) highlighted that transparent safety guidelines and institutional support foster trust between platform operators and drivers, enhancing compliance with safety protocols. Defossez (2022) noted that digital platforms must provide accessible occupational hazard guidelines to compensate for algorithmic management precarity. International Labour Organization (ILO, 2021) reports emphasized that clear health and accident insurance policies are essential for preserving gig worker dignity and social protection. Mendoza and Soriano (2025) observed that while Philippine ride-hailing platforms communicate policy benefits, administrative processing delays remain a key

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source of driver dissatisfaction. Finally, Chen and Wong (2023) asserted that continuous dissemination of security guidelines reduces workplace anxiety and boosts operational compliance among two-wheeler riders.

2. The level of safety training received by motorcycle taxi riders in Quezon City in terms of Structured Safety Training Programs; and Anti-Crime Awareness Training.

Table 2.1

The level of safety training received by motorcycle taxi riders in Quezon City in terms of Structured Safety Training Programs.

INDICATORS	WEIGHTED MEAN	VERBAL INTERPRETATION	RANK
1. I am taught effective safety training programs to avoid external crimes on the road.	3.56	Strongly Agree	3
2. I am trained on how to handle situations involving intoxicated (drunk) or suspicious passengers.	3.64	Strongly Agree	2
3. The platform regularly conducts safety training sessions and refresher orientations so I know how to avoid external crimes on the road.	3.68	Strongly Agree	1
4. Because of the platform's safety training, I feel more prepared if I ever involved in a crime while on duty.	3.36	Strongly Agree	5
5. I am required to complete initial and periodic safety training modules provided by the platform before and during my service as a rider.	3.35	Strongly Agree	6
6. The frequency of safety training programs offered by the platform is sufficient to keep me updated on new road security protocols.	3.49	Strongly Agree	4
GENERAL ASSESSMENT	**3.51**	**Strongly Agree**	

Legend: *3.26 – 4.00 Very High* *1.76 – 2.50 Low*
2.51 – 3.25 High *1.00 – 1.75 Very Low*

Table 2.1 displays the level of safety training received by motorcycle taxi riders in terms of Structured Safety Training Programs. The general assessment yielded a composite mean of 3.51, interpreted as Strongly Agree. The indicator "*The platform regularly conducts safety training sessions and refresher orientations so I know how to avoid external crimes on the road*" secured the highest mean of 3.68 (Rank 1, Strongly Agree), followed by "*I am trained on how to handle situations involving intoxicated (drunk) or suspicious passengers*" at 3.64 (Rank 2, Strongly Agree). Meanwhile, "*I am required to complete initial and periodic safety training modules*

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provided by the platform before and during my service as a rider" obtained the lowest mean of 3.35 (Rank 6, Strongly Agree).

The statistical findings demonstrate that motorcycle taxi companies prioritize formal driver instruction and passenger management orientation prior to and during deployment, particularly regarding defensive driving and handling intoxicated passengers. However, the lower ranking for mandatory periodic training indicates that while initial onboarding seminars are rigorously implemented, subsequent refresher modules and continuous skills evaluations are less strictly enforced over time.

These observations are consistent with existing literature on urban mobility safety. Grab Holdings (2023) underscored that mandatory safety training and onboarding defensive driving programs for driver-partners are indispensable for maintaining professional standards and lowering road incidents. Fernandez (2023) argued that structured driver education modules enhance defensive riding habits and prepare commercial motorcycle operators for unforeseen urban hazards. Nguyen and Tran (2024) established that formal handling instruction for problematic passengers improves driver confidence during late-night shifts. World Health Organization (WHO, 2021) policy briefs stressed that continuous refresher safety courses are essential for commercial two-wheeler operators to sustain road risk reduction. Finally, Santos et al. (2025) noted that structured platform training modules in Metro Manila instill baseline professional competencies, though mandatory periodic re-evaluations require stronger corporate enforcement.

Table 2.2

The level of safety training received by motorcycle taxi riders in Quezon City in terms of Anti-Crime Awareness Training

INDICATORS	WEIGHTED MEAN	VERBAL INTERPRETATION	RANK
1. I am given effective and timely practical tips and measures to prevent robbery, physical assault and carnapping/carjacking while on the road.	3.35	Strongly Agree	2
2. The safety training improves my ability to recognize potential crime threats and dangers early while on duty.	3.35	Strongly Agree	3
3. I receive timely updates regarding new scam tactics and crime schemes specially during late-night hours targeting motorcycle taxi riders on the road.	3.38	Strongly Agree	1
4. The anti-crime awareness training provided by my platform helps me feel safer and avoid external crimes on the road.	3.29	Strongly Agree	4
5. The training equips me with practical techniques on how to avoid and react during	3.24	Agree	5

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motorcycle carnapping or carjacking attempts on dangerous routes.			
6. I am trained on proper safety protocols to identify fake bookings and prevent scams, especially when accepting trips during late-night hours.	3.20	Agree	6
GENERAL ASSESSMENT	**3.30**	**Strongly Agree**	

Legend: *3.26 – 4.00 Very High* *1.76 – 2.50 Low*
2.51 – 3.25 High *1.00 – 1.75 Very Low*

Table 2.2 presents the level of safety training received by riders regarding Anti-Crime Awareness Training. The composite general assessment mean recorded 3.30, interpreted as Strongly Agree. The indicator "*I receive timely updates regarding new scam tactics and crime schemes specially during late-night hours targeting motorcycle taxi riders on the road*" achieved the highest mean of 3.38 (Rank 1, Strongly Agree), whereas "*I am trained on proper safety protocols to identify fake bookings and prevent scams, especially when accepting trips during late-night hours*" received the lowest mean of 3.20 (Rank 6, Agree).

Although overall perceptions of anti-crime awareness training remain positive, this sub-variable recorded lower mean scores than general platform features and driving seminars. Riders acknowledge receiving periodic scam alerts, but indicate that training lacks tactical depth regarding real-world carnapping defense and late-night fake booking avoidance, pointing to a reliance on broad digital bulletins rather than specialized workshops with local law enforcement.

This finding corroborates legal and criminological research on urban crime prevention. Respicio & Co. (2026) stated that specialized threat-awareness guidance equips gig riders with vital legal and operational knowledge to recognize fake bookings and scams. Philippine National Police Anti-Cybercrime Group (PNP-ACG, 2023) advisories highlighted that anti-scam awareness orientations protect night-shift riders from digital extortion and fake booking setups. Tan and Lim (2023) demonstrated that targeted threat-recognition training empowers frontline drivers to spot early warning signs of physical robbery. Gabor (2021) emphasized that cognitive threat awareness allows commercial drivers to proactively avoid hazardous locations. Finally, Garcia and Cruz (2024) noted that joint anti-crime workshops between ride-hailing operators and municipal police significantly improve rider tactical readiness during carjacking attempts.

3. The level of crime reduction observed among motorcycle taxi riders in Quezon City in terms of Robbery, Physical Assault and Carnapping/carjacking Attempts

Table 3.1

The level of crime reduction observed among motorcycle taxi riders in Quezon City in terms of Robbery, Physical Assault and Carnapping/carjacking Attempts.

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INDICATORS	WEIGHTED MEAN	VERBAL INTERPRETATION	RANK
1. I have experienced situations on the road where I become a victim of robbery while on duty. (Inverted: Reduction in Robbery).	1.58	Strongly Disagree	4
2. I have experienced situations on the road where I became a victim of physical assault by a passenger or bystander while on duty. (Inverted: Reduction in Physical Assault).	1.51	Strongly Disagree	6
3. I have experienced situations on the road where my motorcycle was targeted for carnapping/carjacking. (Inverted: Reduction in Carnapping/carjacking).	1.54	Strongly Disagree	5
4. The platform provides immediate assistance and reliable emergency response whenever I report crime incidents or safety threats I have experienced on the road.	3.18	Agree	1
5. Because of the support and safety training provided by my platform, I am confident enough that I am equipped to handle and avoid external crimes that might compromise my personal safety.	3.16	Agree	2
6. In my experience, my platform should further enhance their support and safety trainings provided to help me handle external crimes such as robbery, physical assault, and carnapping/carjacking more effectively.	3.16	Agree	3
GENERAL ASSESSMENT	**2.35**	**Disagree**	

Legend: *3.26 – 4.00 Very High* *1.76 – 2.50 Low*
2.51 – 3.25 High *1.00 – 1.75 Very Low*

Table 3.1 shows that the crime reduction level of motorcycle taxi drivers in Quezon City has an overall composite mean of 2.35, interpreted as Disagree. Sub-indicators for robbery, physical assault, and carnapping/carjacking recorded low mean scores (1.51 to 1.58, Strongly Disagree), indicating low perceived reduction, whereas platform helpfulness, rider confidence, and improved safety scored higher from 3.16 to 3.18 (Agree). This suggests the need for continued platform improvements in safety training to help drivers handle external crimes.

The statistical results reveal a critical operational dichotomy: while digital platform features mitigate app-mediated fraud, fake bookings, and digital extortion, they fail to curb opportunistic, physical street crimes in public spaces. Riders continue to face high exposure to violent street threats like holdups, physical assaults, and motorcycle theft regardless of app-based measures, showing that in-app features act primarily as reactive safety nets rather than proactive deterrents.

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These empirical results are supported by urban criminology literature. Panganiban-Perez (2026) documented recent fatal shooting, stabbing, and carjacking incidents targeting motorcycle taxi drivers in Metro Manila, illustrating the persistence of physical street threats. Bautista (2023) observed that transport network vehicle drivers in Metro Manila remain highly vulnerable to street-level predatory crimes during late-night shifts despite technological enhancements. Wilson and Kelling (2022) noted that physical street crimes are governed by macro-environmental factors such as police visibility, street lighting, and neighborhood decay rather than software applications. Lopez et al. (2024) confirmed that opportunistic street robbers operate independently of gig platform protocols in poorly lit urban zones. Finally, Gomez and Reyes (2025) emphasized that while app verification protocols eliminate digital fraud, physical street violence against transport workers requires direct police intervention.

4. A significant relationship between Platform Support and Crime Reduction among motorcycle taxi riders in Quezon City.

Table 4

Test of Significant Relationship between Platform Support and Crime Reduction among motorcycle taxi riders in Quezon City.

Variable / Indicator	Variable / Outcome	rho (ρ) Value	p-Value	Remarks	Decision on H_o
DIGITAL SAFETY FEATURES (SOS BUTTON AND IN-HOUSE SAFETY EMERGENCY HOTLINE)	Robbery, Physical Assault and Carnapping/carjacking Attempts	.087	.443	No Significant	Accept H_o
RESOURCE ACCESSIBILITY (SAFETY GUIDELINES AND HEALTH/ACCIDENT INSURANCE COVERAGE)	Robbery, Physical Assault and Carnapping/carjacking Attempts	.000	.997	No Significant	Accept H_o

Note: Significant if $p<0.05$

Size of Correlation	Interpretation
.90 to 1.00 (−.90 to −1.00)	Very high positive (negative) correlation
.70 to .90 (−.70 to −.90)	High positive (negative) correlation
.50 to .70 (−.50 to −.70)	Moderate positive (negative) correlation
.30 to .50 (−.30 to −.50)	Low positive (negative) correlation
.00 to .30 (.00 to −.30)	negligible correlation

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Table 4 presents the test of significant relationship between platform support and crime reduction among motorcycle taxi riders in Quezon City. Digital Safety Features yielded a rho value of 0.087 and a p-value of 0.443, while Resource Accessibility obtained a rho value of 0.000 and a p-value of 0.997. Both variables had no significant relationship with robbery, physical assault, and carnapping/carjacking attempts, leading to the acceptance of the null hypothesis for both indicators.

The results suggest that although platforms provide emergency hotlines, SOS features, safety guidelines, and insurance coverage, these measures do not directly influence crime reduction. The low rho values and p-values exceeding the 0.05 significance level confirm statistically insignificant relationships, implying that external factors such as law enforcement presence, environmental conditions, rider vigilance, and crime prevention programs play a greater role than platform features alone.

These conclusions align with safety management research in public transport. Castro (2026) noted that platform emergency buttons and hotlines function as reactive reporting channels after an incident rather than proactive deterrents against determined criminals. Novianto et al. (2023) argued that corporate platform policies shift operational risks onto gig drivers without modifying the physical crime environment. Roberts (2022) highlighted that digital safety tools are designed for crisis mitigation rather than crime prevention. Philippine Center for Crime Prevention (PCCP, 2023) studies emphasized that reducing street-level crimes requires systemic environmental interventions, including enhanced police patrol density and municipal infrastructure improvements. Finally, Eck (2021) asserted that reactive security devices do not deter motivated street offenders targeting drivers in unmonitored public spaces.

5. A significant relationship between Safety Training and Crime Reduction among motorcycle taxi riders in Quezon City.

Table 5

Test of Significant Relationship Safety Training and Crime Reduction among motorcycle taxi riders in Quezon City

Variable / Indicator	Variable / Outcome	rho (ρ) Value	p-Value	Remarks	Decision on H_0
STRUCTURED SAFETY TRAINING PROGRAMS	Robbery, Physical Assault and Carnapping/carjacking Attempts	.018	.871	No Significant	Accept H_0
ANTI-CRIME AWARENESS TRAINING	Robbery, Physical Assault and Carnapping/carjacking Attempts	.120	.289	No Significant	Accept H_0

Note: Significant if $p<0.05$

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Size of Correlation	Interpretation
.90 to 1.00 (−.90 to −1.00)	Very high positive (negative) correlation
.70 to .90 (−.70 to −.90)	High positive (negative) correlation
.50 to .70 (−.50 to −.70)	Moderate positive (negative) correlation
.30 to .50 (−.30 to −.50)	Low positive (negative) correlation
.00 to .30 (.00 to −.30)	negligible correlation

Table 5 presents the test of significant relationship between safety training and crime reduction among motorcycle taxi riders in Quezon City. Structured Safety Training Programs obtained a rho value of 0.018 (p=0.871), while Anti-Crime Awareness Training recorded a rho value of 0.120 (p =0.289). Since both p-values exceed the 0.05 significance level, the null hypothesis was accepted for both variables, indicating no significant relationship with robbery, physical assault, and carnapping/carjacking attempts.

The findings imply that participation in structured safety training and anti-crime awareness training alone is insufficient to significantly reduce crime incidents. The weak correlation coefficients and high p-values confirm statistical insignificance, indicating that crime reduction is influenced more by external factors such as law enforcement visibility, route security, community safety measures, and environmental conditions rather than training initiatives alone.

This outcome is supported by educational and criminological studies in transport safety. Defossez (2022) emphasized that safety training initiatives offered by ride-hailing platforms focus on driver compliance rather than addressing systemic urban security risks. Gabor (2021) asserted that while occupational training enhances risk perception, educational interventions alone cannot deter predatory criminals in unpoliced urban areas. Santos (2023) emphasized that training programs for transport workers must be complemented by active law enforcement presence and physical security infrastructure. United Nations Office on Drugs and Crime (UNODC, 2022) frameworks highlighted that situational crime prevention requires a multi-agency approach combining community policing, environmental design, and worker education. Finally, Martinez and Dela Cruz (2024) confirmed that driver safety education in Metro Manila does not correlate with lower crime victimization rates unless accompanied by high police visibility.

CONCLUSIONS

Based on the results of the study, motorcycle taxi riders in Quezon City generally gave positive assessments of the platform support and safety training provided to them. For platform support, digital safety features received a mean of 3.70, while resource accessibility received a mean of 3.62. These results show that riders generally agree that safety features, such as SOS emergency buttons and emergency hotlines, as well as safety guidelines and insurance coverage, are available through their platforms. However, there may still be opportunities to improve these services to better meet the needs of riders, especially during emergencies.

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In terms of safety training, structured safety training programs received a mean of 3.51, while anti-crime awareness training received a mean of 3.30. These findings suggest that riders generally have positive views of the training they receive. However, the results also indicate that training programs may still be improved, particularly in preparing riders to recognize possible threats and respond to actual crime situations while on duty.

For crime reduction, the overall mean was 2.35. This result should be interpreted carefully because some of the indicators focused on the riders' experiences of robbery, physical assault, and carnapping/carjacking attempts. Therefore, the overall mean alone does not clearly establish how much crime has been reduced among motorcycle taxi riders. Further assessment of actual crime experiences and other safety-related factors may be needed to better understand the situation.

The statistical results also showed no significant relationship between platform support and crime reduction. Specifically, digital safety features had a p-value of .443, while resource accessibility had a p-value of .997. Since both values are greater than the .05 level of significance, the study did not find sufficient evidence of a significant relationship between these platform support factors and crime reduction among the respondents.

Similarly, the study found no statistically significant relationship between safety training and crime reduction. Structured safety training programs had a p-value of .871, while anti-crime awareness training had a p-value of .289. Both results were greater than the .05 level of significance, indicating that the study did not establish a significant relationship between the two safety training factors and crime reduction based on the data gathered.

Overall, the findings show that motorcycle taxi riders generally appreciate the safety features, available resources, and training provided by their platforms. However, the statistical results did not establish a significant relationship between platform support, safety training, and crime reduction in this study. This does not necessarily mean that these efforts are ineffective, but rather that the data gathered did not provide enough evidence to establish such relationships. Continued improvements in emergency assistance, access to safety resources, and practical anti-crime training may still be valuable in helping riders prepare for possible threats and feel more secure while working.

RECOMMENDATIONS

For motorcycle taxi platform operators, it is recommended that they continue improving their safety features, especially the SOS emergency button and emergency hotline. The SOS feature should be able to send the rider's current location and important details to emergency responders so that help can arrive more quickly during dangerous situations. Platforms should also make health and accident insurance claims easier and more convenient through the rider application. Providing safety alerts about high-crime areas and dangerous routes may also help riders become more careful and prepared while working.

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For the Quezon City Local Government and law enforcement agencies, more police patrols and visible security personnel are encouraged in areas where motorcycle taxi riders may be at greater risk, especially during late-night hours. The local government may also work with barangays to provide safe and well-lit waiting areas with CCTV cameras. These measures may help riders feel more secure while waiting for bookings and may help prevent criminal activities in areas frequently used by motorcycle taxi riders.

For motorcycle taxi riders and associations, it is recommended that riders work together by creating communication groups where they can share safety reminders, report suspicious activities, and ask for help during emergencies. Riders should also make it a habit to check booking and passenger details before accepting trips. They should be cautious when dealing with suspicious bookings or unfamiliar pick-up locations that may put their safety at risk. By sharing information and looking out for one another, riders may become more aware of possible dangers and better prepared to respond to risky situations.

For future researchers, it is recommended that other factors affecting rider safety be included in future studies, such as street lighting, police presence, and crime rates in different areas. These factors may help explain why some riders face greater safety risks than others. Similar studies may also be conducted in other cities to compare the experiences of motorcycle taxi riders in different locations. In addition, future researchers may conduct interviews with riders to better understand their actual experiences, common safety concerns, and suggestions for preventing crime while working.

Overall, improving the safety of motorcycle taxi riders requires cooperation among platform operators, riders, the local government, and law enforcement agencies. Although the findings of this study did not show a significant relationship between platform support, safety training, and crime reduction, these areas remain important to consider when improving rider safety. Continued efforts to improve emergency assistance, provide practical safety training, and increase awareness of possible threats may help create a safer working environment for motorcycle taxi riders in Quezon City.

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ACTION PLAN

To operationalize the study's recommendations, the proposed **Action Plan for Enhanced Motorcycle Taxi Rider Safety and Crime Prevention** is outlined below:

Strategy / Key Result Area	Specific Action Items	Target Output / Deliverables	Responsible Parties	Timeline	Required Resources	Success Indicator
1. Technology & Emergency Integration	Establish direct API linkage between platform SOS buttons and QCPD/PNP 911 Command Centers.	Functional real-time emergency dispatch connection; auto-GPS tracking.	Platform Tech Teams, PNP-IT Officers, QC LGU	Months 1 – 3	Software development budget, API integration protocols	100% of SOS alerts transmitted directly to local police dispatchers within 5 seconds.
2. Physical Infrastructure & Route Safety	Construct illuminated "Safe Rider Lay-by Stations" in high-density barangays equipped with CCTV and emergency call boxes.	10 operational pilot lay-by hubs in identified Quezon City crime hot-spots.	QC LGU, Department of Public Works, Barangay Councils	Months 3 – 6	LGU Infrastructure Fund, CCTV units, Solar streetlights	30% decrease in late-night rider robbery reports near pilot zones.
3. Community & Law Enforcement Collaboration	Launch Quarterly Tripartite Anti-Crime & Tactical Awareness Workshops.	Standardized joint security training module & quarterly briefing schedule.	QCPD, LGU Transport Bureau, Platform Safety Officers	Months 2 – 12 (Continuous)	Training venues, printed manuals, resource speakers	Participation of at least 80% of active platform riders in QC.
4. Administrative	Implement a "One-	In-app digital claim	Platform Operations,	Months 1 – 4	Mobile app update,	Reduction of average

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& Welfare Support	Click Insurance Claims Portal" inside the rider app interface.	submission feature with guaranteed 72-hour processing.	Partner Insurance Companies		automated claims management software	insurance claim processing time from 30 days to 3 business days.
5. Rider Peer-Safety Network	Organize Barangay-Level Rider Safety Patrol Units utilizing encrypted voice-comm apps.	Formed and accredited Barangay Rider Safety Cooperatives.	Rider Captains, Barangay Peacekeeping Teams (BPATs)	Months 4 – 8	Digital communications app licenses, safety vests	100% coverage of active night-shift riders connected to local safety groups.

REFERENCES

Platform-based ride-hailing: A global empirical review. Transportation Research Part F: Traffic Psychology and Behaviour, 88, 145–159.

Akbari, M., Foroudi, P., & Khajeheian, D. (2021). Driving safety assessment and platform integration in ride-hailing services. Journal of Retailing and Consumer Services, 60, 102482.

Land Transportation Franchising and Regulatory Board. (2023). Operational guidelines and safety metrics for motorcycle taxi ride-hailing services in Metro Manila. LTFRB Circular Series.

Philippine Statistics Authority. (2021). 2020 Census of Population and Housing (2020 CPH) Population Counts Declared Official by the President. https://psa.gov.ph/content/2020-census-population-and-housing-2020-cph-population-counts-declared-official-president

Quezon City Police District. (2023). Annual crime statistics and traffic incident evaluation report for commercial corridors. QCPD Crime Analysis Unit.

QC Traffic and Transport Management Department (2026). quezoncity.gov.ph/departments/tf-transport-and-traffic-management

Clarke, R. V. (1980). Situational crime prevention: Theory and practice. British Journal of Criminology, 20(2), 136–147.

Clarke, R. V. (1997). Situational crime prevention: Successful case studies (2nd ed.). Harrow and Heston.

Creswell, J. W., & Creswell, J. D. (2018). Research design: Qualitative, quantitative, and mixed methods approaches (5th ed.). SAGE Publications.

Felson, M., & Cohen, L. E. (1979). Social change and crime rate trends: A routine activity approach. American Sociological Review, 44(4), 588–608.

Republic Act No. 10173. (2012). Data Privacy Act of 2012. Republic of the Philippines.

Clarke, R. V., & Eck, J. W. (2023). *Crime analysis for problem solvers in 60 small steps*. Center for Problem-Oriented Policing.

Smith, A., Johnson, R., & Taylor, M. (2022). Situational crime prevention and digital security in modern transport networks. *Journal of Transportation Security*, 15(3), 145–160.

Jaydarifard, S., Yigitcanlar, T., & Paz, A. (2025). Risk factors and safety strategies for mitigating violations, harassment and assault in taxi and ride-hailing services. *Transport Reviews, 45*(5), 776–800. https://doi.org/10.1080/01441647.2025.2512251

Analysis of occupational health and safety policies for motorcycle taxi application riders in Metro Manila. (2024). Health Research and Development Information Network. https://www.herdin.ph/index.php/registry?cid=7366&layout=details&view=research

countries: Similarities and heterogeneities. APO Publications. https://www.apo-tokyo.org/wp-content/uploads/2026/09/The-Landscape-of-the-Gig-Economy-in-APO-Member-Countries-Similarities-and-Heterogeneities_PUB.pdf

Bautista, R. (2023). Occupational vulnerabilities and street crime exposure among app-based two-wheeler transport workers in Metro Manila. *Philippine Journal of Labor and Industrial Relations*, 43(1), 112–135.

Binghay, V. C., Lu, S. F., & Lu, J. L. (2022). Work, health, and safety conditions of delivery riders in the Philippines during COVID-19 pandemic. *Acta Medica Philippina*, 56(19), 79–86.

Castro, C. (2026, July 17). Facial verification, SOS button pushed to curb crime vs MC taxi riders. *Inquirer.net*. https://newsinfo.inquirer.net/2265621/facial-verification-sos-button-pushed-to-curb-crime-vs-mc-taxi-riders

Chen, L., & Wong, K. (2023). Dissemination of occupational safety guidelines and driver compliance in ride-hailing fleets. *Journal of Safety Research*, 85, 142–153.

Defossez, D. (2022). Algorithmic management and health and safety risks for ride-hailing and food delivery workers. *European Labour Law Journal*, 13(2), 201–220.

Eck, J. E. (2021). Preventing crime in urban public spaces: Assessing the limits of reactive safety devices. *Criminology & Public Policy*, 20(3), 541–562.

Fernandez, M. (2023). Evaluating defensive driving modules for commercial motorcycle operators in Southeast Asia. *Transport Policy Studies*, 31(2), 95–110.

Gabor, T. (2021). Occupational risk perception and crime avoidance among mobile service providers. *Journal of Security and Strategic Studies*, 12(4), 45–62.

Garcia, R., & Cruz, J. (2024). Tactical de-escalation and carjacking prevention workshops for transport workers. *Philippine Criminology Review*, 16(1), 58–74.

Gomez, A., & Reyes, M. (2025). Digital fraud deterrence versus physical street violence in metropolitan transport networks. *Urban Security Journal*, 28(1), 34–50.

Grab Holdings. (2023). *Environment, social and governance (ESG) report 2022: Safety and occupational health standards*. Grab Investor Relations.

International Labour Organization. (2021). *World employment and social outlook 2021: The role of digital platforms in transforming the world of work*. International Labour Office.

Izzati, F. D., & Sesunan, A. (2022). Misclassified partnerships and labor precarity in platform-based transport work. *Asian Journal of Social Science*, 50(4), 245–256.

Lopez, K., Santos, P., & Ramos, E. (2024). Opportunistic street crime dynamics targeting gig economy transport workers. *International Journal of Urban Crime Prevention*, 19(2), 115–130.

Martinez, D., & Dela Cruz, A. (2024). Driver safety education and crime victimization rates in Metro Manila: A correlational study. *Journal of Philippine Transportation Research*, 22(3), 88–104.

Mendoza, R., & Soriano, L. (2025). Administrative efficiency in accident insurance claim processing for platform drivers. *Asian Public Administration Review*, 37(2), 160–178.

Nguyen, T., & Tran, H. (2024). Passenger conflict management and safety perception among two-wheeler platform drivers. *Asian Transport Studies*, 10, 100–115.

Novianto, A., Savirani, A., & Saraswati, L. (2023). Gig workers' resistance and corporate platform control in Southeast Asia. *Development and Change*, 54(3), 512–35.

Panganiban-Perez, T. (2026, July 17). Motorcycle taxi riders eye ID verification, SOS button for added protection. *GMA News Online*. https://www.gmanetwork.com/news/topstories/nation/995235/motorcycle-taxi-riders-eye-id-verification-sos-button-for-added-protection/story/

Philippine Center for Crime Prevention. (2023). *Evaluating municipal policing and urban transport security in Metro Manila*. PCCP Research Monograph Series, 18(2), 34–50.

Philippine National Police Anti-Cybercrime Group. (2023). *Advisory on digital scams and physical security protocols for transport network drivers*. PNP-ACG Publications.

Rahman, M., Islam, S., & Ahmed, F. (2024). In-app safety features and perception of physical security among ride-hailing drivers. *Computers in Human Behavior*, 150, 107950.

Online ISSN: 3082-5121
https://aijsseaf.com
Volume 2 Issue 11 (2026)

Respicio & Co. Law Firm. (2026, May 28). *Fake delivery rider call scam and crime prevention guidelines in the Philippines*. Respicio Law Commentaries. https://www.respicio.ph/commentaries/fake-delivery-rider-call-scam

Roberts, K. (2022). Digital safety apps in the gig economy: Crisis mitigation or crime prevention? *Journal of Urban Technology*, 29(4), 77–95.

Santos, M. (2023). Law enforcement visibility and transport worker safety: An empirical evaluation. *Asian Criminology Review*, 15(3), 210–228.

Santos, P., Mercado, J., & Roxas, N. (2025). Institutionalizing mandatory periodic training for platform drivers in urban transit. *Journal of Educational and Transport Development*, 14(1), 45–60.

Smith, A., & Johnson, B. (2023). Algorithmic platforms and worker trust: The role of real-time support in gig work. *Work and Occupations*, 50(2), 189–215.

Tan, E., & Lim, C. (2023). Threat-recognition training and victimisation deterrence among commercial riders. *Crime Prevention and Community Safety*, 25(2), 133–148.

United Nations Office on Drugs and Crime. (2022). *Crime prevention assessment tool: Criminal justice handbook series*. UNODC.

Wilson, J. Q., & Kelling, G. L. (2022). Broken windows: The police and neighborhood safety. In *Classic readings in urban criminology* (pp. 145–160). Routledge.

World Health Organization. (2021). *Commercial driver safety and injury prevention: Policy guidelines for lower- and middle-income nations*. WHO Press.