

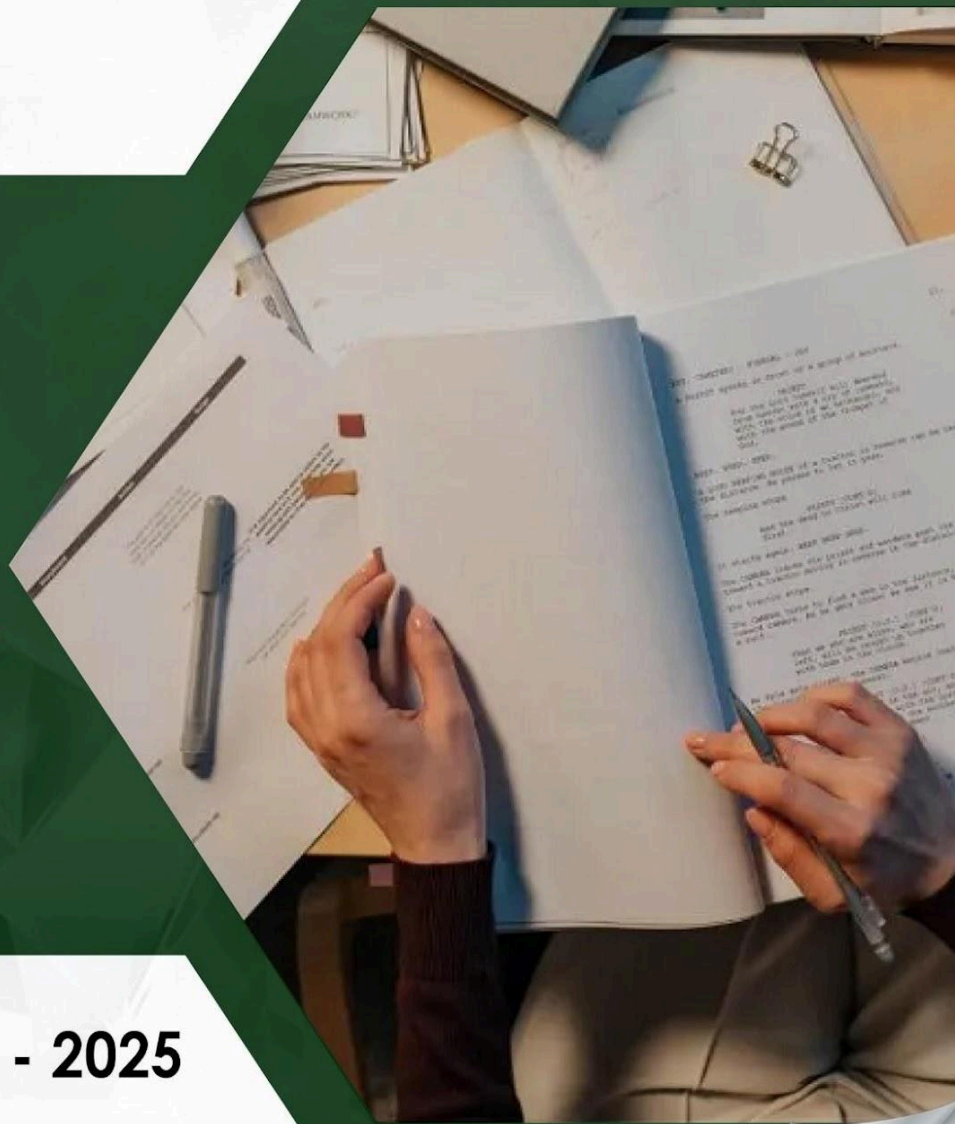


OLIVAREZ COLLEGE-TAGAYTAY, INC.
E. AGUINALDO HIGHWAY, BGY. SAN JOSE, TAGAYTAY CITY

BACHELOR OF SCIENCE IN CRIMINOLOGY
OCT THE FORUM

VOL. IV NO. I

ISSN: 2945-3755



SCHOOL YEAR 2024 - 2025



The OCT- THE FORUM of the BACHELOR OF SCIENCE IN CRIMINOLOGY of OLIVAREZ COLLEGE TAGAYTAY is published annually by the Olivarez College Tagaytay Center for Research, Publication, Planning, and Development.

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ISSN: 2945- 3038

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FOREWORD



With a deep sense of pride and academic fulfillment, we present **Volume 4, No. 1 of *The Forum: The Student Research Journal of the Bachelor of Science in Criminology Program of Olivarez College Tagaytay***. This publication stands as a reflection of the program’s enduring commitment to advancing criminological research and nurturing future law enforcers who are grounded in both scholarship and service.

The research articles featured in this issue highlight the diverse and evolving landscape of criminology and public security. Topics range from the *extent of compliance of fast-food chains with public safety protocols* and the *impact of fare matrix policies on transportation affordability*, to the *implementation of the Motorcycle Helmet Act*, *ethical issues in online data sharing*, and *awareness of the Safe Spaces Act of 2018*. The inclusion of studies on *firearm regulation*, *responsible dog ownership*, and *challenges in polygraph testing* further reflects the students’ deep interest in exploring practical issues that affect both citizens and law enforcers.

Each study in this volume demonstrates the students’ ability to connect theory with practice—examining legal frameworks, enforcement practices, and social behaviors that shape the pursuit of peace and order. These scholarly works not only fulfill academic requirements but also embody the College’s thrust toward **evidence-based policy formulation, community engagement, and ethical criminological practice**.

This publication is a product of collaborative effort and academic discipline. The dedication of the student-researchers, the guidance of their advisers, and the support of the faculty and administration have all contributed to making *The Forum* a living testament to Olivarez College Tagaytay’s enduring mission: to produce criminologists who are **competent, compassionate, and committed to the service of humanity**.

As we launch this fourth volume, may it continue to inspire both students and faculty to pursue scholarly inquiry that uplifts communities and strengthens the foundation of justice in our nation.

- Glenn Mhar R. Galang, PhD, RCRIM, MSCJ

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OCT- THE FORUM



**Research, Survey, and Publication of the
BACHELOR OF SCIENCE IN CRIMINOLOGY
OLIVAREZ COLLEGE TAGAYTAY**

Vol.4 No.1

ISSN – 2945 – 3038

August 2025

**Extent of Compliance of Selected Fast-Food Chains on
Public Security in Tagaytay City**

*Barredo, Carla Sophia P., Capuno, Shaelene D., De Sagun, Mark Lester V.
Layugan, Lester Ace V. Majesterio, Terence Anthony R.*

ABSTRACT

This study explores the security compliance of fast-food chains in Tagaytay City, focusing on the impact of public safety measures on customer and employee welfare. Ensuring adherence to safety and security regulations is crucial for preventing accidents, mitigating risks, and fostering public trust. With rising concerns over food safety and health, particularly post-COVID-19, this research examines the security practices in fast-food chains and their effect on customers and staff. The study employed a descriptive quantitative approach, using stratified random sampling to gather data from 400 respondents, including customers, employees, and security personnel. Data analysis was conducted using ANOVA to assess differences in security compliance across different fast-food establishments. The results revealed varying levels of compliance, with some chains showing strong safety protocols. Others had significant gaps, especially in surveillance systems, the presence of security personnel, and information security measures. Discrepancies in staff training and awareness were noted. The findings highlight that while most establishments have basic safety measures, there is room for improvement, particularly in implementing more advanced security technologies. Recommendations include enhancing staff training programs, incorporating state-of-the-art security measures, and establishing regular audits of safety practices. Strengthening these protocols can improve employee and customer safety, fostering a more secure and trusting environment. The study underscores the importance of ongoing vigilance and proactive measures to ensure public safety and comply with regulations.

Keywords: Security Compliance, Fast-food Chains, Public Safety, Health and Safety Regulations, Tagaytay

II. INTRODUCTION

A business entity is an organization formed by one or more individuals to conduct trade or engage in commercial activities. As such entities expand city operations, ensuring public safety and security compliance becomes critical. These measures aim to protect employees, customers, and the surrounding community. A business that prioritizes safety enhances trust, strengthens its reputation, and ensures long-term viability. Public safety and security compliance refers to the adherence to regulations that prevent accidents, mitigate risks such as theft or injury, and create a safe working environment. Especially in urban areas aiming to attract tourists and investors, such compliance is crucial for sustaining a high quality of life.

Consumer awareness around health, food safety, and hygiene has also increased—further emphasized by the COVID-19 pandemic. According to Sim and Wiwanitkit (2021), global concerns regarding cleanliness and nutritious consumption patterns surged during this period. Similarly, recurring incidents of foodborne illnesses (Civero et al., 2017) have led restaurant operators to reevaluate food safety protocols. Preventing workplace disease, crime, and accidents is a shared responsibility between the government and businesses. Many countries, including the Philippines, have institutions and regulations promoting occupational health and safety. The Philippine Labor Code mandates employers to ensure "safe and healthful working conditions" (Presidential Decree No. 442, 1974). Yet, gaps remain in implementation and enforcement.

In particular, fire safety enforcement, as led by the Bureau of Fire Protection (BFP), is vital in ensuring safe business operations. Efforts such as clearing road obstructions (DILG Memorandum Circular 2019–121) and reinforcing emergency response capacity are among several government-led initiatives. Compliance is further reinforced by laws like Republic Act No. 11032 (Ease of Doing Business Act), which streamlines processing but upholds strict standards for public safety and security. This study explores how fast-food chains in Tagaytay City are improving their compliance with public safety and security standards. By understanding their efforts and challenges, researchers aim to inform best practices and support the development of safer business environments.

III. METHODS

This study employed a descriptive quantitative research design. Quantitative research focuses on collecting and analyzing numerical data to describe variables, examine relationships, and determine patterns. This approach was selected to assess public safety and security compliance among fast-food chains and quantify customer perceptions and responses. The researchers use structured and statistically analyzable data to draw generalizable conclusions based on the sample population.

The research was conducted in Olivarez, Tagaytay City, Cavite. This location was selected due to its convenience for the researchers and the presence of multiple fast-food businesses relevant to the study. The respondents—staff, and customers—completed the survey at their respective business premises, ensuring comfort and accessibility during data collection.

The researchers utilized a stratified random sampling technique to ensure representation across different strata within the population. Neyman (1934) explains that stratified sampling divides the population into homogeneous subgroups (strata), and samples are drawn proportionally from each group. This method increases the precision of the results by considering variability within each stratum, making it a practical approach for this type of study.

The primary research instrument used in this study was a self-constructed survey questionnaire. The questionnaire consisted of two main parts: 1) Demographic Profile – Gathered data on the respondents' age, gender, position (staff or customer), and relevant background. 2) Public Safety and Security Compliance – Included statements rated on a 5-point Likert scale to measure fast-food chains' perceived safety and security compliance (1 = Strongly Disagree to 5 = Strongly Agree). The questions were developed based on the study's objectives and literature on public safety and regulatory compliance. The printed questionnaires were distributed in person to respondents within Olivarez, Tagaytay City.

Researchers personally distributed the survey questionnaires to selected fast-food establishments. Before distribution, written permission was secured from the Office of the Dean at Olivarez College Tagaytay. The researchers clearly explained the purpose and instructions to all respondents before participation, ensuring informed consent and

understanding. All responses were gathered on-site to monitor completion and clarify any questions. Strict confidentiality and privacy of respondent information were upheld throughout the data collection process.

The researchers used Analysis of Variance (ANOVA) as the primary statistical method to determine whether there are statistically significant differences in public safety and security compliance perceptions across groups (e.g., by age, role, or establishment). Post hoc tests were also conducted to pinpoint which specific groups showed significant differences. While ANOVA determines if a general difference exists, post hoc testing identifies the exact nature of those differences.

IV. RESULT

SOP #1. Demographic Profile

1. Name
2. Age
3. Gender
4. Highest Educational Attainment
5. Role
6. Length of service in fast-food chain as staff/customer
7. Frequency of visit in fast-food chain as customer

Table 1
The Profile of the Respondents

Category	Frequency	Percentage
18 – 30 years old	323	80.8%
31 – 40 years old	56	14%
41 – 50 years old	14	3.5%
51 years old and above	7	1.8%
Gender		
Male	173	43.3%
Female	187	46.8%
Prefer not to Say	40	10%
Educational Attainment		
High School Graduate	157	39.3%
College Graduate	123	30.8%
Units in Masters Degree	13	3.3%
Masters Degree	5	1.3%
Units in Doctorate	2	.5%

2024-2025

Doctorate Degree	19	4.8%
Prefer not to mention	81	20.3%
Role		
Staff	44	11%
Customer	335	83.8%
Guard	4	1%
Prefer not to say	11	2.8%
Length of Service		
5 years and below	48	12%
6 – 10 years	14	3.5%
11 – 15 years	3	.8%
16 -20 years	8	1.3%
Frequency of Visits		
Always	125	31.3%
Often	119	29.8%
Sometimes	122	30.5%
Seldom	33	8.35
Never	1	.3%

Table 1 shows the profile of the respondents. Frequency counts and percentages were utilized to determine the distribution of demographic profiles. The data shows that most respondents are 18 – 30, primarily female, high school and college graduates, customers, and always visiting fast-food chains in Tagaytay. This may imply that millennials and Gen Z are primary drivers of the fast-food industry, motivated by affordability and quick service (Statistica, 2023). This n shows that the majority are aged 18-30 years, predominantly female, with a high school or college education, and frequent customers of fast-food chains in Tagaytay. This aligns with industry trends where millennials and Gen Z, motivated by affordability and quick service, are key drivers of the fast-food sector. Given this, fast-food establishments should focus on catering to the needs of this young, educated, and predominantly female customer base, possibly offering more health-conscious options and targeted promotions.

Additionally, enhancing security compliance in these establishments is crucial, as younger customers are increasingly concerned with safety and trust when purchasing. According to Zhang et al. (2019), Public Safety, Security, and Health Compliance: Existing literature highlights the importance of public safety, security, and health compliance in

business entities. Compliance with regulations and best practices is essential to prevent accidents, ensure the well-being of employees and customers, and maintain a positive reputation for the organization.

SOP #2. What is the extent of compliance of selected fast-food chains on public security in terms of:

1. Physical Security
2. Security Personnel
3. Document and Information Security

Table 2

Investigation on the security compliance of fast-food chains in Tagaytay City

Physical Security	Mean	SD	VI
1. The fast-food chain has functional surveillance cameras installed at all entry, exit points, kitchen, and cashiers. <i>(Ang fast-food chain ay may gumaganang kamera ng pagbabantay na nakalagay sa lahat ng pasukan, labasan, kusina, at mga kahera.)</i>	3.52	.798	VHLC
0. Warning signs regarding safety and security protocols are adequately displayed in the fast-food chain. <i>(Ang mga babala ukol sa mga patakaran ng kaligtasan ay maayos na nakalagay.)</i>	3.49	.788	VHLC
0. Fire and smoke alarms are regularly inspected and maintained to ensure they are in working order. <i>(Ang mga alarma na pang-apoy at pang-usok ay regular na sinusuri at pinapanatili upang matiyak na ito ay nasa maayos na kondisyon.)</i>	3.40	.801	VHLC
0. Fire alarm system is installed and integrated with other safety systems (e.g., sprinklers, emergency lighting) throughout the fast-food chain. <i>(Ang sistema ng alarma na pang-apoy ay naka-kabit at naka-sama sa iba pang mga sistema ng kaligtasan (halimbawa, mga sprinkler, ilaw na pang emergensya) sa buong fast-food chain.)</i>	3.46	.768	VHLC
5. The physical barriers at the service counter (e.g., protective glass, raised counters) effectively protect employees from potential threats. <i>(Ang mga pisikal na bakod sa tanggapan ng serbisyo (halimbawa, salamin panangga, itinaas na tanggapan) ay epektibong nagpoprotekta sa mga empleyado at mga customer mula sa mga potensyal na banta.)</i>	3.40	.782	VHLC
Mean security compliance of fast-food chain in terms of Physical Security	3.46	.676	VHLC

Table 2 Respondents' investigation on the security compliance of fast-food chains in Tagaytay City regarding Physical Security. Based on the scores obtained, an overall mean of 3.46 and a standard deviation of .676 were obtained, interpreted as a Very High Level of Compliance. This only shows that the security compliance of fast-food chains in Tagaytay City in terms of Physical Security is at a very high level of compliance. Examining the security compliance of fast-food restaurants in Tagaytay City reveals a very high level of physical security compliance. The findings show that adequate security measures, like surveillance and controlled entry points, are routinely used. The regularity of responses demonstrates a strong commitment to safeguarding the safety of customers, staff, and assets, driven by the area's high tourist traffic. Overall, the findings indicate a strong approach to physical security. Ongoing adjustments are required to address changing issues.

Table 2.1
Security Personnel

2.2 Security Personnel	Mean	SD	VI
1. Security personnel are present to all working hours to effectively manage crowds and enhance safety through supervision. <i>(Naroroon ang mga guwardiya sa mga oras ng trabaho upang epektibong pamahalaan ang mga tao at pahusayin ang kaligtasan sa pamamagitan ng pagbabantay.)</i>	3.40	.829	VHLC
0. The security personnel in fast-food chain has clearly apply the security policies in place to address potential threats. <i>(Ang mga tauhan ng seguridad sa fast-food chain ay malinaw na nagpatupad ng mga patakaran sa seguridad upang harapin ang mga potensyal na banta.)</i>	3.37	.768	VHLC
0. Security procedures are effectively implemented by staff and security personnel to manage safety risks. <i>(Epektibong ipinatutupad ng mga tauhan at guwardiya ang mga hakbang sa seguridad upang pamahalaan ang mga panganib at kaligtasan.)</i>	3.37	.772	VHLC
0. Security personnel regularly monitor camera feeds and respond to potential security incidents. <i>(Regular na nagmamasid ang mga guwardiya sa mga kuha ng kamera at tumutugon sa mga potensyal na insidente sa seguridad.)</i>	3.29	.823	VHLC
0. There are enough security personnel present during working hours to manage crowds and potential security issues	3.34	.800	VHLC

(Sapat ang mga guwardiya na naroroon sa mga oras ng trabaho upang pamahalaan ang mga tao at mga posibleng problema sa seguridad.)

Mean Security Compliance of food-chain in terms of security personnel	3.35	.684	VHLC
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Based on the table above the investigation into the security compliance of fast-food chains in Tagaytay City regarding security personnel reveals a *Very High Level of Compliance*, with an overall mean of 3.35 and a standard deviation of 0.684. The highest-rated indicator, with a mean of 3.40 and SD of 0.829, highlights the presence of security personnel during all working hours, ensuring effective crowd management and safety. Other indicators, such as the precise application of security policies (mean = 3.37) and sufficient staffing during operations (mean = 3.34), also show high compliance, emphasizing structured and proactive security practices. Even the lowest-rated indicator—regular monitoring of camera feeds (mean = 3.29)—still reflects a very high compliance level, demonstrating the chains' commitment to surveillance and quick response. These findings align with expert insights emphasizing the critical role of trained, observant, and well-staffed security teams in maintaining public safety, minimizing threats, and supporting operational stability and community well-being.

Table 2.2
Document and Information Security

2.3 Document and Information Security	Mean	SD	VI
1. The fast-food chain has clear policies in place regarding the handling and protection of sensitive information. <i>Ang fast-food chain ay may mga malinaw na patakaran ukol sa paghawak at pagprotekta ng sensitibong impormasyon.</i>	3.35	.81 1	VHL C
0. There are established policies for the retention and disposal of sensitive documents to ensure information security. <i>(May mga nakatakdang patakaran para sa pag-iingat at pagtatapon ng sensitibong dokumento upang matiyak ang seguridad ng impormasyon.)</i>	3.31	.80 4	VHL C
0. The fast-food chain provides clear and visible information about its data privacy policies. <i>Nagbibigay ang fast-food chain ng malinaw at nakikita na impormasyon tungkol sa mga patakaran nito sa privacy ng datos.</i>	3.31	.82 5	VHL C
0. The fast-food chain has a clear procedure for addressing customer concerns about information security. <i>May malinaw na pamamaraan ang fast-food chain para sa pagtugon sa mga alalahanin ng mga customer tungkol sa seguridad ng impormasyon.</i>	3.33	.80 1	VHL C

0. The proper handling and documentation of customer's online payment information (such as credit card details) ensures that it is secure. <i>(Ang tamang paghawak at dokumentasyon ng impormasyon ng online na bayad ng mga customer (tulad ng detalye ng credit card) ay nagtitiyak na ito ay ligtas.)</i>	3.33	.69 4	VHL C
Mean Security Compliance of food-chain in terms of documents and information security	3.33	.69 4	VHL C
Mean Security Compliance of Fast Food-Chain in Tagaytay	3.38	.63 7	VHL C

Based on the table above, the investigation into the security compliance of fast-food chains in Tagaytay City regarding Document and Information Security yielded an overall mean of 3.33 and a standard deviation of 0.694, interpreted as a Very High Level of Compliance. This indicates that fast-food establishments, particularly in Olivarez Tagaytay, have implemented strong policies to protect customer data, including sensitive information such as credit card details and online payment methods. The highest-rated indicator (mean = 3.35) emphasized clear policies for handling sensitive information, reflecting the chains' commitment to data confidentiality. Despite this strong performance, Document and Information Security had the lowest overall rating compared to other security categories, highlighting an area for potential improvement. Other notable indicators, such as having procedures for handling customer concerns (mean = 3.33) and properly documenting online transactions, also demonstrate very high compliance. However, the lowest-rated indicators (mean = 3.31) pertain to document retention/disposal and visibility of data privacy policies—areas that, while compliant, may benefit from further reinforcement. Supporting literature underscores the importance of user awareness, clear policy communication, and proactive risk management in preventing breaches, especially given that human error remains a common cause of data compromise. Overall, these findings suggest that while fast-food chains in the area maintain robust data protection standards, continuous improvement in policy

communication and document handling practices is essential to sustaining high compliance.

SOP #3. Is there a significant difference in the extent of security compliance of selected fast-food chains to a group according to their profile?

Table 3

Anova Table for the Level of Security Compliance of selected fast-food chains in Tagaytay city.

Level of Security Compliance		Sum of Squares	Df	f	Significance	Decision
Age	Between Groups	2.709	3	2.249	.082	Accept Null
	Within Groups	158.954	39			
Gender	Between Groups	4.439	2	5.605	.004	Reject Null
	Within Groups	157.223	39			
Role	Between Groups	2.238	4	1.386	.238	Accept Null
	Within Groups	159.424	39			
Educational Attainment	Between Groups	9.823	6	4.237	.000	Reject Null
	Within Groups	151.839	39			

Legend: P-value < .05 Reject Null Hypothesis

Table 3 is the Anova table for the level of security compliance of selected fast-food chains in Tagaytay City when grouped according to their profile. The data shows no significant difference in the level of security compliance of selected fast-food chains in Tagaytay City when grouped according to the age and role of the respondents. This may imply that regardless of the respondents' age and role, the level of security compliance is the same. When it comes to gender and educational attainment of the respondents, the p-values show .004 and .000, which is less than .05; therefore, the null hypothesis is rejected; there is a significant difference in the level of security compliance of the fast-food chain when group according to gender and educational attainment. Tukey Post-hoc test was conducted to

determine which group has a significant difference. The data revealed, as shown in Table 3.1, that female respondents rated the level of security compliance at 3.47, which was verbally interpreted as a very high level of compliance,

In contrast, the male respondents rated it with 3.20, verbally interpreted as a high level of security compliance. This may imply that women feel more secure than men in public or work-related settings. This is mentioned in the study of Pina et al. (2019), who say that gender differences in perceptions of safety can be attributed to varying levels of risk awareness and personal experiences, whereas in women, heightened sensitivity to safety environments often results in higher evaluations of security initiatives, while men may assess such measures less rigorously. With regards to educational attainment, high school graduates rated the level of security compliance with a mean score of 3.30, while college graduates rated it with a mean score of 3.58. Both are verbally interpreted as a very high level of compliance.

Table 3.1

Post-hoc test to determine which one has the significant difference.

Category		Significanc e	Decision
Male (3.20 Mean)	Female (3.47 Mean)	.003	Reject Null
High School Graduate (Mean 3.30)	College Graduate Mean (3.58)	.003	Reject Null

There are notable differences between the groups examined, according to the post-hoc test in Table 5.1. With a p-value of 0.003, the first comparison between Male (mean 3.20) and Female (mean 3.47) reveals a statistically significant difference, suggesting that the two groups have significantly different mean scores. Likewise, there is an important difference (p-value of 0.003) between high school graduates (mean 3.30) and college graduates (mean 3.58). Both gender and educational attainment appear to substantially impact the outcomes assessed, as evidenced by rejecting the null hypothesis in both situations. These findings highlight the significance of these elements in setting the groups apart.

SOP #4. Based on the findings, what enhancement program can be proposed in public security?

Enhanced Security Training Program for Fast-Food Chains

Program Title:

FASTSECURE: Fast-Food Security Awareness, Compliance, and Emergency Response Program

Program Duration:

2 days of initial training, followed by quarterly refresher sessions (2–3 hours each)

Objectives:

1. To equip staff and security personnel with the knowledge and skills needed to implement security protocols effectively.
2. To raise awareness of current and emerging security threats in fast-food settings.
3. To ensure proper response during security incidents, emergencies, or data breaches.
4. To improve coordination between employees, security guards, and local law enforcement.

Target Participants:

- Cashiers
- Service crew
- Store managers and supervisors
- On-duty security personnel

Day 1 – Physical and Personnel Security

Time	Topic	Content
8:00 AM – 9:00 AM	Orientation & Security Culture	Importance of security in food establishments, customer trust, company policies
9:00 AM – 10:30 AM	Identifying Security Threats	Recognizing suspicious behavior, theft prevention, handling aggressive customers
10:45 AM – 12:00 PM	Role of Security Personnel	Duties of guards, communication with staff, emergency protocols
1:00 PM – 2:30 PM	Physical Security Measures	CCTV, alarm systems, emergency exits, lockdown procedures
2:45 PM – 4:00 PM	Scenario-Based Training	Role-playing theft, crowd control, and altercations
4:00 PM – 5:00 PM	Post-incident Reporting	How to file incident reports, coordination with police

Day 2 – Information Security and Data Privacy

Time	Topic	Content
8:00 AM – 9:30 AM	Understanding Data Privacy	Types of sensitive customer info, RA 10173 (Data Privacy Act)
9:30 AM – 11:00 AM	Handling Online Transactions	Secure handling of card payments, avoiding phishing scams
11:15 AM – 12:30 PM	Internal Security Breaches	Employee confidentiality, insider threats, access controls
1:30 PM – 3:00 PM	Security Procedures Compliance	Standard Operating Procedures (SOPs) review, checklists
3:15 PM – 4:30 PM	Emergency Response Training	Fire, earthquake, medical emergencies, active threat situations
4:30 PM – 5:00 PM	Q&A and Evaluation	Participant feedback and assessment

Post-Training Support:

- **Quarterly Refresher Courses**
- **Security Manual and Quick Reference Cards**
- **On-Site Security Drills (Bi-annually)**
- **Incident Reporting App or Hotline Setup**

Trainers/Instructors:

- Security Consultants
- Representatives from the Philippine National Police (PNP)
- Data Privacy Officers
- Fire Safety Officers

Expected Outcomes:

- Increased employee confidence in handling threats
- Improved adherence to safety and privacy protocols
- Reduced risk of security breaches and incidents
- Strengthened collaboration between staff and law enforcement

V. DISCUSSION

Fast-food chains in Tagaytay City, particularly in the Olivarez area, have achieved a very high level of compliance with public security measures, including physical security, security personnel, and document and information security. Among these, the highest compliance was observed in the presence and performance of security personnel, suggesting that fast-food chains recognize the importance of visible and active security in maintaining order and customer trust. Physical security, such as using surveillance cameras and access control systems, also received strong ratings, indicating that establishments are equipped with the necessary tools to deter criminal activity and manage crowd safety. However, the relatively lower—though still high—rating in document and information security highlights a growing need to strengthen data protection practices, particularly as digital transactions become more common. The fact that there was no significant difference in compliance levels across age groups and respondent roles suggests that security practices are generally consistent and universally recognized across demographics. Staff members, however, demonstrated a higher level of

familiarity with security policies, while customers were more focused on visible security measures and their perceived effectiveness. These insights suggest that while fast-food chains are largely compliant, there is room for improvement in data privacy transparency, policy communication, and customer engagement in security protocols. Strengthening these areas through regular training, collaboration with authorities, and updated technology will ensure a safe, secure environment for staff and patrons.

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The Impact of Franchise and Fare Matrix Compliance on Public Transportation Affordability in Tagaytay City

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I. ABSTRACT

Public transportation, especially tricycles, is crucial due to its affordability and accessibility. With the rising fuel and operational expenses, this study assesses whether operators adhere to the prescribed fare matrix and franchise renewal policies. This study investigates the compliance of tricycle/bulky operators with the fare matrix and franchise regulations in Tagaytay City, Philippines. This study utilizes a Quantitative Descriptive Research Design with a Random Sampling Technique. The participants were drivers and commuters, analyzing frequency, percentages, and means. The findings show high compliance with fare regulations, although younger respondents (ages 21-30) were more sensitive to fare affordability. This suggests that regular updates to the fare matrix are necessary to balance affordability and operational sustainability. The study recommends annual fare structure reviews, monthly seminars for drivers on fare adjustments and franchisee policies, and social media campaigns to inform the public about fare regulations; strengthening transparency between local governments, operators, and commuters will further improve Tagaytay's public transportation system.

Keywords: Public transportation, Franchise compliance, Fare matrix, Tricycles/Bukyo, Tagaytay City

II. INTRODUCTION

Public transportation plays an indispensable role not only for commuters but also for drivers and operators who rely on it for their livelihood. Among the various modes of public transportation in the Philippines, tricycles are the second most common. A tricycle is a motorcycle with an attached sidecar (Caolen, 2024). These vehicles are widespread nationwide, except on major or high-traffic roads. Moreover, these are highly adaptable and can be modified to serve specific purposes in rural and urban areas, making them a valuable means of transportation. Fare is the amount a traveler pays to use public transportation such as this, while the system that determines the fare amount for different passengers is referred to as the fare structure. Since fares serve as the primary source of income for operators, they are crucial to the operation of public transportation.

By LTO Memorandum Circular No. 94-199, fares must be set at a level that ensures a reasonable return or profit for operators while remaining affordable for the general public.

Furthermore, the fare structure may be a flat rate (a single fare regardless of distance) or a minimum fee plus an introductory rate per kilometer. Until the Sangguniang Bayan (SB) or Sangguniang Panlungsod (SP) prescribes a specific fare structure for a particular area, the official fare to be initially implemented will consist of a minimum fee of P2.00 plus P0.50 per kilometer beyond 4.0 kilometers. Typically, when fare prices increase, fewer passengers use

the service. Whether revenue increases or decreases due to a fare hike depends on the relationship between fares and passenger demand, as represented by the demand curve. Tagaytay's transportation system is subject to change based on local government policies and prevailing weather conditions. However, regular transportation services, including buses, tricycles, and jeepneys, are available from neighboring towns to Tagaytay. Among these options, tricycles or "bukyo" are one of the most preferred modes of transportation due to their affordability and convenience in traveling between destinations. Given the city's popularity as a tourist destination and external factors such as rising oil prices and increased demand for transportation services, franchise and fare matrix compliance are strictly enforced. In the past, fares were lower, and operating a tricycle did not require a franchise. However, fare rates have risen due to increasing costs, and operating without a franchise is now illegal. According to Tikigo (2021), the type of vehicle and the distance traveled influence the cost of commuting. For example, a tricycle ride can cost between 20 and 50 pesos, depending on the route. In addition, fare costs are subject to fluctuations due to local government policies, special events, and variations in fuel prices. Consequently, some drivers do not strictly adhere to the mandated fare matrix. In some cases, drivers, lacking alternative means of livelihood, increase fares to sustain their daily needs. Caoleng asserted that if tricycle fares in Tagaytay do not follow the prescribed fare matrix, there is a likelihood that commuters will seek alternative transportation options with more affordable fares.

This study aims to understand the impact of franchise and fare matrix compliance on tricycle and bukyo transportation in Tagaytay City. Specifically, it seeks to determine how compliance with franchise and fare regulations affects both drivers and commuters' daily lives. The study will assess whether the fare matrix accurately reflects tariff rates, whether tricycle and bukyo operators are renewing their franchises, and whether commuters find the fare rates reasonable for their destinations. This research will provide valuable insights into the advantages and disadvantages of fare matrix compliance for tricycle and bukyo drivers and commuters, particularly for students at Olivarez College Tagaytay.

III. METHODS

The researchers utilize quantitative descriptive research design. A descriptive quantitative research design is defined as a study that can find the answer to the question of who, what, when, where, and how. A descriptive type of research is defined as collecting data

to answer questions concerning the status of the subject of the study, and all of this talks about finding the answer to the questionnaire the researchers want to know in this research.

The study was conducted at Olivarez Plaza E Aguinaldo Highway Barangay San Jose Tagaytay City near Olivarez College Tagaytay. The respondents of the study are the students at Olivarez College Tagaytay, Passengers, and Drivers of bukyo in Olivarez Plaza since they will be an effective means of gathering data that will suffice the information needed in this study with an approximate population of 140 drivers of bukyo and 140 passengers based on the total driver of bukyo in Olivarez Plaza. The researchers chose Random Sampling techniques. In research, random sampling is regarded as one of the most widely used and straightforward techniques for gathering data. The criteria for selecting respondents are based on whether it is commuters and drivers of Bukyo at Olivarez Plaza; the researchers considered our sampling technique, Randon Sampling, due to the large population of commuters and drivers of Bukyo at Olivarez Plaza. The researchers must take a random respondent to answer the questionnaire (Taylor, 2023).

IV. RESULTS

This section deals with the gathered data, which will be analyzed and interpreted to better understand the study. The framework of the analysis and interpretation is guided by the problems stated above.

1. What is the demographic profile of the respondents in terms of:

Table 1

Demographic Profile of the Respondents in terms of Age

	Demographic Profile	Frequency	Percentage
Age	21 – 30 years old	129	46.1%
	31 – 40	58	20.7%
	41 – 50	60	21.4%
	51 years old and above	33	11.8%
	Total	280	100%

Table 1 shows the age distribution of the respondents. According to Guo and Li (2021) on financial viability and Tepmanee and Siridhara (2020) on willingness-to-pay, it is critical to understand the age distribution of drivers and commuters. The majority of

respondents (46.1%) were aged 21 to 30, followed by those aged 41 to 50 (21.4%) and 31 to 40 (20.7%). Only 11.8% were 51 years or older. Because of their mobility needs, younger people (aged 21 to 30) are likely to use public transportation (for example, commuting to work or school), making them more sensitive to fare affordability due to their limited income and reliance on public transportation for everyday activities. Lallo and Navarro (2024) investigated commuters' preferences and willingness to pay for Modern Public Utility Vehicles (MPUVs), focusing on comfort and convenience in urban settings. The findings suggest that younger commuters prioritize comfort and convenience. Still, they are also concerned about fare affordability due to their low income and reliance on public transportation for daily activities. According to the ITF (2024) study, younger generations may have different transportation needs and financial constraints than older age groups. This group comprises active working-age individuals more likely to respond to fare adjustments, service improvements, or fare subsidy programs.

Table 1.1

Demographic Profile of the Respondents in terms of Gender

	Demographic Profile	Frequency	Percentage
Gender	Male	166	59.3%
	Female	109	38.9%
	Prefer not to mention	5	1.8%
	Total	280	100%

The demographic profile presented in Table 1.2 shows that the majority of respondents are male (59.3%), followed by female respondents (38.9%), with a small percentage (1.8%) preferring not to reveal their gender. This male predominance is consistent with findings in the transportation sector, specifically in tricycle operations. According to Bautista et al. (2024), the general discussion on tricycle and public transportation fare matrices suggests that male dominance is prevalent in roles like tricycle drivers. This is because Sierto and Navarro (2023) explored female tricycle drivers' challenges, highlighting issues such as balancing work and family obligations, encountering discrimination, and facing stereotypes. Despite these challenges, female drivers increasingly participate in this field, demonstrating resilience and adaptability. However, up until today, a low ratio has been found. This demographic composition could reflect the workforce in the transportation sector

and highlight potential gender-specific challenges or biases in addressing fare structures, compliance with regulations, and modernization efforts.

Table 1.2
Demographic Profile of the Respondents in terms of Civil Status

Demographic Profile		Frequency	Percentage
Civil Status	Single	151	53.93%
	Married	120	42.86%
	Seperated	3	1.07%
	Widowed	6	2.14%
Total		280	100%

Table 1.2 presents the distribution of respondents according to their civil status. Most of the respondents were single (n = 151, 53.93%), followed by those who were married (n = 120, 42.86%). A small proportion of the respondents were widowed (n = 6, 2.14%) or separated (n = 3, 1.07%).

These results indicate that most respondents are single, making up more than half of the sample. Meanwhile, many respondents are married, suggesting that public transportation affordability and accessibility may be important for young professionals and individuals with family responsibilities. The low percentages of separated and widowed respondents suggest that these groups may have less representation in the study population.

Table 1.3
Demographic Profile of the Respondents in terms of Highest Educational Attainment

Demographic Profile		Frequency	Percentage
Highest Educational Attainment	Elementary	23	8.2%
	Highschool	95	33.9%
	Vocational	30	10.7%
	College	112	40%
	Undergraduate		

	College Graduate	20	7.1%
Total		280	100%

The data in Table 1.3 shows the respondents' highest educational attainment, with the largest group being college undergraduates (40%), followed by high school graduates (33.9%), vocational graduates (10.7%), elementary graduates (8.2%), and college graduates (7.1%). This distribution provides insight into the educational background of the respondents, particularly in the context of public transportation, including tricycle drivers in the Philippines.

In the Philippine transportation sector, especially among tricycle drivers, individuals with lower educational attainment are often more likely to enter the industry due to the accessibility of these jobs and fewer qualification requirements. According to Vázquez-Grenno et al. (2024) and Jin et al. (2019), the educational attainment of respondents, where the majority have a high school (33.9%) or college undergraduate (40%), suggests a population with the capacity to understand and adapt to fare matrix policies or technological improvements, such as digital fare systems or app-based services. A relatively educated population enables more straightforward implementation of modernization initiatives like the PUV Modernization Program (Sunio et al., 2021). However, communication and training strategies must be simplified for the less educated group (e.g., elementary-level at 8.2%) to ensure compliance and participation. Commuters, 142 (50.7%).

Table 1.4

Demographic Profile of the Respondents in terms of their Role

	Demographic Profile	Frequency	Percentage
	Driver	138	49.3%
Role	Commuters	142	50.7%
	Total	280	100%

The data in Table 1.4 presents the respondents' roles, showing a nearly equal distribution between drivers (49.3%) and commuters (50.7%). This distribution is significant

for understanding the dynamics of the public transportation system, particularly tricycles, in the Philippines.

The nearly even split between drivers (49.3%) and commuters (50.7%) provides balanced perspectives on fare matrices, franchise regulations, policies, and systems: those who provide the service (drivers) and those who rely on it (commuters). Understanding both roles is crucial in assessing the overall efficiency and affordability of the transportation system. For drivers, fare compliance may directly impact earnings and livelihood. Fair and affordable transportation is critical for commuters, primarily low-income individuals, as highlighted by studies such as Chizeck and Mbonu (2023). Policymakers must balance fare increases to improve service quality (Jin et al., 2019) while ensuring affordability for commuters. The balanced representation ensures a nuanced understanding of both sides, which is crucial for equitable policy development.

Table 1.5

Demographic Profile of the Respondents in terms of their Length of Driving

Demographic Profile	Frequency	Percentage
Length of Driving		
Total	280	100%

Table 2

The assessment of the respondents on the compliance of fare matrix on public transportation

<i>Variable</i>	<i>Mea n</i>	<i>Std Dev</i>	<i>Verbal Interpretation</i>
<i>Compliance of Fare Matrix on Public Transportation</i>	3.10	.490	<i>High Compliance</i>

Legend:

3.26 – 4.00 Very High Compliance

2.51 – 3.25 High Compliance

1.76 – 2.50 Low Compliance,

1.00 – 1.75 Very Low Compliance

Table 2 shows how respondents perceive overall compliance with the fare matrix in Tagaytay City's public transportation system. The mean score of $M = 3.10$ ($SD = 0.490$) is in the High Compliance range (2.51 - 3.25), indicating that public transportation operators generally adhere to the prescribed fare rates, though some inconsistencies may still exist. The relatively low standard deviation ($SD = 0.490$) indicates that respondents have a moderate level of agreement, implying that perceptions of compliance are relatively consistent across the sample. A study by Modeshift (2022) found that demographic factors, such as age and socioeconomic status, can influence fare evasion behaviors, suggesting that inconsistencies in compliance may be context-dependent.

Table 2.1

Indicators of Compliance of Fare Matrix on Public Transportation

Indicators	Mean	SD	Verbal Interpretation
1. The current fare matrix for public transportation in Tagaytay City is fair and reasonable. <i>(Ang kasalukuyang pamasahé sa pampublikong transportasyon sa Lungsod ng Tagaytay ay makatarungan at makatwiran.)</i>	3.13	.60 5	<i>High Compliance</i>
0. The fare matrix is implemented consistently across all public transportation operators. <i>(Ang pamasahé ay ipinatutupad nang pare-pareho sa lahat ng mga operator ng pampublikong transportasyon.)</i>	3.06	.60 8	High Compliance
0. The fare matrix ensures that public transportation remains affordable for the majority of Tagaytay residents.	3.15	.63 1	High Compliance

(Tinitiyak ng pamasaha na ang pampublikong transportasyon ay nananatiling abot-kaya para sa karamihan ng mga residente ng Tagaytay.)

0. The fare matrix is modified regularly to consider cost and fuel price changes.

(Ang pamasaha ay binabago nang regular upang isaalang-alang ang mga pagbabago sa halaga ng bilihan at presyo ng gasolina.)

3.12 .63
3 High
Compliance

0. Public transportation fares in Tagaytay City are reasonable compared to other cities and municipalities.

(Ang mga pamasaha sa pampublikong transportasyon sa Lungsod ng Tagaytay ay makatwiran kumpara sa iba pang mga lungsod at munisipalidad.)

3.07 .63
3 High
Compliance

0. The fare matrix for public transportation in Tagaytay City is posted and easily accessible to commuters.

(Ang pamasaha sa pampublikong transportasyon sa Lungsod ng Tagaytay ay nakapaskil at madaling ma-access ng mga pasahero.)

3.09 .63
0 High
Compliance

7. Public transportation drivers in Tagaytay consistently follow the fare rates as indicated in the official fare matrix.

(Ang mga drayber ng pampublikong transportasyon sa Tagaytay ay palaging sumusunod sa mga pamasaha ayon sa nakasaad sa opisyal na pamasaha.)

3.08 .64
0 High
Compliance

Legend:

3.26 – 4.00 Very High Compliance

2.51 – 3.25 High Compliance

1.76 – 2.50 Low Compliance

1.00 – 1.75 Very Low Compliance

Table 2.1 shows that the indicator with the highest mean ($M= 3.15$) and standard deviation ($SD=.631$) is interpreted as High Compliance. The fare matrix ensures that public transportation remains affordable for most Tagaytay residents. (Tinitiyak ng pamasaha na ang pampublikong transportasyon ay nananatiling abot-kaya para sa karamihan ng mga residente ng Tagaytay.) Most Tagaytay citizens can afford public transportation thanks to the fare matrix. The mean of ($M=3.15$) and the standard deviation of ($SD=0.631$) indicate high compliance. This finding, which has the highest mean score of all the variables, shows that residents generally perceive the fare matrix as affordable. It shows how the city is working to address community needs by offering affordable and easily accessible transportation. There is a broad consensus that most locals can still afford the cost of public transportation, as seen by this indicator's highest mean score. This has a favorable impact on the design of the fare matrix, demonstrating that it considers affordability rules and the financial abilities of the community. Guo and Li (2021) and Chizeck and Mbonu (2023) highlight the importance of balancing affordability and financial viability in public transportation. The mean rating of affordability for Tagaytay residents is ($M=3.15$), indicating that the fare matrix aligns with the needs of the local population. However, response variability ($SD= 0.631$) suggests that fare affordability could be challenging for specific demographic groups, such as low-income commuters. Policymakers should ensure affordable fare structures, particularly for marginalized or low-income residents. Subsidies or discounts could be explored for vulnerable groups to improve equity in access to public transportation.

The indicator with the highest mean of ($M=3.13$) and standard deviation of ($SD=.605$) is interpreted as High Compliance. The current fare matrix for public transportation in Tagaytay City is fair and reasonable. (Ang kasalukuyang pamasaha sa pampublikong transportasyon sa Lungsod ng Tagaytay ay makatarungan at makatwiran.) Tagaytay City's present public transportation fare structure is fair and reasonable. High compliance with a mean ($M=3.13$) and a standard deviation ($SD=.605$). Most respondents think that the current fares are fair and reasonable. This implies that tourists think the prices are fair, considering the caliber of the services they receive. Perceptions among respondents are not significantly diverse from one another, as demonstrated by the comparatively low standard deviation. The general satisfaction with the pricing system can be determined by respondents' opinion of the fare matrix as fair and reasonable. It is clear from the high prices that most commuters believe the fares are reasonable. The slight standard deviation shows consistent responses and implies agreement across all respondent groups. Guo and Li (2021)

and Chizeck and Mbonu (2023) highlight the importance of balancing affordability and financial viability in public transportation. The mean ratings of ratings for fairness ($M=3.13$) indicate that the fare matrix aligns with the needs of the local population. However, response variability ($SD= 0.605$) suggests that fare affordability could be challenging for specific demographic groups, such as low-income commuters. Policymakers should ensure affordable fare structures, particularly for marginalized or low-income residents. Subsidies or discounts could be explored for vulnerable groups to improve equity in access to public transportation.

The indicator with the highest mean of ($M=3.12$) and standard deviation of ($SD=.633$) is interpreted as High Compliance. The fare matrix is modified regularly to consider cost and fuel price changes. (Ang pamasaha ay binabago nang regular upang isaalang-alang ang mga pagbabago sa halaga ng bilihan at presyo ng gasolina.) Frequent adjustments are made to the fare matrix to account for costs and fluctuations in fuel prices. The mean is ($M=3.12$), and the standard deviation ($SD=0.633$) indicates high compliance. Respondents acknowledge that the fare matrix is altered regularly to consider outside variables such as changes in expenses and fuel prices. This flexibility guarantees that the fare matrix stays equitable over time and promotes sustainability. Nonetheless, a small degree of response variability suggests some disagreements on the frequency or effectiveness of these adjustments. According to the respondents, the pricing matrix adjusts to shifting economic situations, including changes in fuel prices and daily costs. This suggests that the system is flexible and vulnerable to outside influences. However, a certain amount of response variation can indicate that some commuters are unaware of how and when these modifications occur. Jin et al. (2019) and Tepmanee and Siridhara (2020) underline the necessity for frequent tariff adjustments to account for economic variables like inflation or changes in fuel prices. Regarding fare changes, authorities need to be open and proactive. The public's trust will be upheld and operators' livelihoods will be guaranteed by constantly updating the fare matrix to reflect current economic conditions.

The indicator with the highest mean of ($M=3.09$) and standard deviation of ($SD=.630$) is interpreted as High Compliance. The fare matrix for public transportation in Tagaytay City is posted and easily accessible to commuters. (Ang pamasaha sa pampublikong transportasyon sa Lungsod ng Tagaytay ay nakapaskil at madaling ma-access ng mga pasahero.). In Tagaytay City, commuters can access the posted public transportation fare matrix. The mean is ($M= 3.09$) standard deviation ($SD=0.630$), indicating high

compliance. Most participants agree that the fare matrix is shown in easily accessible places for commuters. The somewhat lower score, however, indicates that there might be times when the fare matrix is not immediately accessible or posted in some locations, which could allow for increased visibility. Most respondents think it is easy to see and use the fare matrix. However, the result also points out areas for improvement in ensuring that all commuters, especially those unfamiliar with the system, may easily get information about fares. According to Tikigo (2021), empowering commuters and ensuring compliance is essential. The mean score of ($M=3.09$) reflects a generally positive perception, but some respondents might still encounter difficulties accessing fare matrix information, especially in underserved areas. Transportation authorities should mandate displaying fare matrices in all public transport vehicles. Additionally, digital platforms could be leveraged to make fare information accessible to a broader audience.

The indicator that got the highest mean of ($M=3.08$) and standard deviation of ($SD=.640$) is interpreted as High Compliance Public transportation drivers in Tagaytay consistently follow the fare rates as indicated in the official fare matrix. (Ang mga drayber ng pampublikong transportasyon sa Tagaytay ay palaging sumusunod sa mga pamasaha ayon sa nakasaad sa opisyal na pamasaha.). In Tagaytay, public transportation drivers consistently adhere to the fare rates listed in the official tariff matrix. The mean is ($M= 3.08$) and a standard deviation of ($SD=.640$), implying high compliance. Since the official fare matrix is generally accepted as being followed by drivers, this proof suggests that strict adherence may be irregular. There may have been rare departures from the recommended rates for some respondents, suggesting that more strong monitoring and enforcement mechanisms must be implemented. In general, drivers are thought to follow the established fare matrix. This indicator, however, suggests irregular failure to comply, which could be based on operator discretion or communication problems. Commuters' consistency and trust may be enhanced by improving monitoring systems. Mentioned that while fare matrices are set, it can be challenging to ensure regular driver compliance. Adherence to the fare matrix might be enhanced by stricter enforcement, such as random inspections or methods for penalizing non-compliance. Driver education programs emphasizing the value of compliance and customer satisfaction may also be helpful.

The indicator with the highest mean of ($M=3.07$) and standard deviation of ($SD=.633$) is interpreted as High Compliance. The fare matrix is modified regularly to consider cost and fuel price changes. (Ang pamasaha ay binabago nang regular upang

isaalang-alang ang mga pagbabago sa halaga ng bilingin at presyo ng gasolina.). Tagaytay City's public transportation costs are affordable compared to other cities and municipalities. The mean is ($M=3.07$), and the standard deviation of ($SD=0.633$) indicates high compliance. Respondents think Tagaytay's prices are fair compared to fares in nearby cities or municipalities. This suggests that transportation is reasonably priced compared to other places because of the pricing matrix's intense regional competition. Responses vary slightly, which could result from respondents using different standards to compare. Respondents generally think that Tagaytay's prices are comparable to those in other places. This indicates that, in contrast to regional standards, the city has been able to keep prices reasonable. However, the somewhat lower mean indicates that some respondents may think there are tiny differences in affordability.

The indicator with the highest mean ($M=3.06$) and standard deviation ($SD=.608$) is interpreted as High Compliance. The fare matrix is implemented consistently across all public transportation operators. (Ang pamasaha ay ipinatutupad nang pare-pareho sa lahat ng mga operator ng pampublikong transportasyon.) Every public transit operator uses the fare matrix in the same way. The mean of ($M=3.06$) and a standard deviation of ($SD=0.608$) indicate a high level of compliance. This indication has the lowest mean score out of all the items while being categorized as Highly Compliant. This suggests that some respondents believe operators are not implementing the fare matrix correctly. It could point to some drivers charging excessive rates or improperly using the official tariff matrix.

This suggests there may be irregularities in how operators apply the charge matrix due to a lack of supervision or disparities in driver and operator conduct. This sector may benefit from additional regulation to ensure equity for all passengers. According to Tikigo (2021) emphasizes the importance of operators having clear and enforced guidelines. The average rating of 3.06 emphasizes that although most people see compliance favorably, operator variations might lead to fare disputes or discontent. Transportation authorities ought to fortify their monitoring systems to guarantee consistent compliance among operators.

3. What is the respondent's assessment of franchise compliance on Tricycle/Bukyo?

Table 3

The Respondent's Assessment on Franchise Compliance of Tricycle/ Bukyo

Variable	Mean	Std Dev	Verbal Interpretation
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Franchise Compliance of “Tricycle/Bukyo” 3.11 .431 High Compliance

Legend:

3.26 – 4.00 Very High Compliance

2.51 – 3.25 High Compliance

1.76 – 2.50 Low Compliance

1.00 – 1.75 Very Low Compliance

Table 3

Indicators of Franchise Compliance of Tricycle/ Bukyo

Indicators	Mea n	SD	Verbal Interpretation
1. The franchises granted to public transportation operators in Tagaytay City are fair and equitable. <i>(Ang mga prangkisa na ibinibigay sa mga operator ng pampublikong transportasyon sa Lungsod ng Tagaytay ay makatarungan at pantay-pantay.)</i>	3.12	.559	High Compliance
2. Franchise holders are adhering to the terms and conditions of their agreements. <i>(Sumusunod ang mga may hawak ng prangkisa sa mga tuntunin at kundisyon ng kanilang mga kasunduan.)</i>	3.12	.548	High Compliance
3. The franchise system ensures that public transportation remains affordable for Tagaytay residents. <i>(Tinitiyak ng sistema ng prangkisa na ang pampublikong transportasyon ay nananatiling abot-kaya para sa mga residente ng Tagaytay.)</i>	3.13	.564	High Compliance
4. Franchise agreements are regularly reviewed and updated to address changing needs and circumstances.	3.11	.495	High Compliance

(Ang mga kasunduan sa prangkisa ay regular na nire-review at ina-update upang matugunan ang mga nagbabagong pangangailangan at kalagayan.)

5. The public transportation franchise in Tagaytay provides reliable and efficient service to passengers

(Ang prangkisa ng pampublikong transportasyon sa Tagaytay ay nagbibigay ng maaasahan at epektibong serbisyo sa mga pasahero.)

3.19 .497

High
Compliance

6. The franchise system ensures that public transportation operators are treated fairly.

(Tinitiyak ng sistema ng prangkisa na ang mga operator ng pampublikong transportasyon ay tinatrato nang makatarungan.)

3.14 .518

High
Compliance

7. The government is effectively enforcing both franchise and fare matrix regulations.

(Epektibong ipinapatupad ng pamahalaan ang mga regulasyon ng parehong prangkisa at pamasaha.)

3.10 .515

High
Compliance

Legend:

3.26 – 4.00 Very High Compliance

2.51 – 3.25 High Compliance

1.76 – 2.50 Low Compliance

1.00 – 1.75 Very Low Compliance

Table 3 shows the respondents' assessment of franchise compliance on Tricycle/Bukyo on public transportation terms of franchise based on the scores obtained with an overall mean of ($M=3.19$) and a standard deviation of ($SD=.497$) verbally interpreted as High Compliance. This only shows that the compliance of franchises on public transportation in terms of franchise is high. The high mean score suggests that respondents believe Bukyo and tricycle operators generally comply with their franchises' operational and legal requirements. Following rules, including legal registration, staying on authorized routes or locations, and fulfilling service requirements specified by local authorities are a few examples of this compliance. Most operators comprehend and carry out their franchise responsibilities, as indicated by the "High Compliance" grade, which helps maintain a

controlled and orderly public transportation system. The low standard deviation indicates that respondents' assessments of franchise compliance were mainly consistent, suggesting that they agreed. This consistency would suggest that most operators have continuously high levels of compliance.

The indicator that got the highest mean of ($M=3.19$) and standard deviation ($SD=.497$) is interpreted as High Compliance. The public transportation franchise in Tagaytay provides reliable and efficient service to passengers (*Ang prangkisa ng pampublikong transportasyon sa Tagaytay ay nagbibigay ng maaasahan at epektibong serbisyo sa mga pasahero*). The public transportation franchise in Tagaytay provides reliable and productive service to passengers. The mean is ($M=3.19$), and a standard deviation of ($SD= 0.497$) means High Compliance. This indicator has the highest mean score, highlighting the perception that public transportation administrations are dependable and efficient. This is a strong point of the franchise system, demonstrating its ability to meet passengers' expectations. Research by Guo and Li (2021) and Vázquez-Grenno et al. (2024) highlights the importance of ensuring affordability and reliability in public transportation systems. The mean scores for reliability ($M=3.19$) reflect a positive perception of the franchise system's role in maintaining these aspects. While the current franchise system is perceived as ensuring affordable and reliable service, ongoing assessments are necessary to adapt to changing economic conditions, such as fuel price fluctuations. Policymakers should periodically review fare matrices and service standards to maintain affordability and reliability.

The indicator with the highest mean ($M=3.14$) and standard deviation ($SD=.518$) is interpreted as High Compliance. The franchise system ensures that public transportation operators are treated fairly. (*Tinitiyak ng sistema ng prangkisa na ang mga operator ng pampublikong transportasyon ay tinatrato nang makatarungan.*) The franchise system of public transportation operators is ensured in the franchising system. The mean is ($M=3.14$) with a standard deviation of ($SD=0.518$), which means high compliance. Managing operators fairly in the franchise system indicates implementing fair policies, which enhances stakeholder engagement and cooperation. Based on the respondents, the system maintains an amended relationship between operators and regulators. Fairness and transparency in governance are crucial in public transportation networks, particularly in unregulated or semi-regulated industries like tricycles and Bukyo, according to Sunio et al. (2021) and Gatarin (2023). The system is considered reasonably fair, as evidenced by the mean score of 3.14 for operator treatment equity. The franchise system operates effectively regarding

operator distribution and treatment based on the favorable view of fairness. However, regular audits and open communication regarding the franchise granting requirements should be implemented to maintain this. This will prevent possible partiality or unfairness among operators, and ongoing trust will be guaranteed.

The indicator with the highest mean of ($M=3.13$) and standard deviation of ($SD=.564$) is interpreted as High Compliance. The franchise system ensures that public transportation remains affordable for Tagaytay residents. (Tinitiyak ng sistema ng prangkisa na ang pampublikong transportasyon ay nananatiling abot-kaya para sa mga residente ng Tagaytay.) The franchise system ensures that public transportation remains affordable for Tagaytay residents. The mean is ($M=3.13$), and a standard deviation of ($SD=0.564$) High Compliance. Respondents agree that the franchise system supports affordability, making public transportation accessible to many residents. This emphasizes the franchise system's role in keeping reasonable fare structures while assembling the community's requirements. According to Guo and Li (2021) and Vázquez-Grenno et al. (2024) highlights the importance of ensuring affordability and reliability in public transportation systems. The mean scores for affordability ($M=3.13$) reflect a positive perception of the franchise system's role in maintaining these aspects. While the current franchise system is perceived as ensuring affordable and reliable service, ongoing assessments are necessary to adapt to changing economic conditions, such as fuel price fluctuations. Policymakers should periodically review fare matrices and service standards to maintain affordability and reliability.

The indicator with the highest mean of ($M=3.13$) and standard deviation of ($SD=.427$) is interpreted as High Compliance. The franchises granted to public transportation operators in Tagaytay City are fair and equitable. (*Ang mga prangkisa na ibinibigay sa mga operator ng pampublikong transportasyon sa Lungsod ng Tagaytay ay makatarungan at pantay-pantay*). The franchises granted to public transportation operators in Tagaytay City are fair and equitable (repeated). The mean is ($M=3.13$), and the standard deviation is ($SD=0.427$) High Compliance. Like the last outcome, franchise distribution has been considered fair. The minimal standard deviation shows that the respondents' conclusions are consistent. This supports the prior indicator, suggesting that respondents are entirely convinced that the franchise-allowing procedure is fair and unbiased. The reduced standard deviation highlights strong consensus on this point.

The indicator with the highest mean of ($M=3.12$) and standard deviation of ($SD=.559$) is interpreted as High Compliance. The franchises granted to public transportation operators in

Tagaytay City are fair and equitable. (*Ang mga prangkisa na ibinibigay sa mga operator ng pampublikong transportasyon sa Lungsod ng Tagaytay ay makatarungan at pantay-pantay*). The franchises given to public transportation operators in Tagaytay City are fair and equitable. The mean is ($M=3.12$), and the standard deviation is ($SD=0.559$) High Compliance. The respondents consider the franchise allocation process generally fair and equitable, indicating a transparent and fair system of presenting franchises where all operators are given equal opportunities. The moderate standard deviation indicates an agreement among respondents with some minor variability in their perceptions. The respondents think that the franchise allocation process is generally fair and equitable, indicating transparency and consistency in the process of distributing a franchise, ensuring that operators are given equal opportunities. The standard deviation suggests slight variations in opinion, indicating probable isolated cases where fairness may be questioned. Fairness and transparency in governance are crucial in public transportation networks, particularly in unregulated or semi-regulated industries like tricycles and Bukyo, according to Sunio et al. (2021) and Gatarin (2023). The system is considered reasonably fair, as evidenced by the mean score of ($M=3.12$) for franchise allocation fairness. The franchise system operates effectively regarding operator distribution and treatment based on the favorable view of fairness. However, regular audits and open communication regarding the franchise granting requirements should be implemented to maintain this. This will prevent possible partiality or unfairness among operators, and ongoing trust will be guaranteed.

The indicator with the highest mean of ($M=3.12$) and standard deviation of ($SD=.548$) is interpreted as High Compliance Franchiseholders adhering to the terms and conditions of their agreements. (*Sumusunod ang mga may hawak ng prangkisa sa mga tuntunin at kundisyon ng kanilang mga kasunduan.*) Franchise holders are adhering to the terms and conditions of their agreements. The mean is ($M=3.12$), and the standard deviation of ($SD=0.548$) is a High Compliance. Franchise holders are viewed as compliance with their legally binding commitments, implying that they follow guidelines, rules, and regulations outlined in their agreements. This adherence supports the smooth operation of public transportation administrations and reflects positively on the monitoring instruments. Franchise holders must follow the rules to maintain consistent service quality and public happiness, according to Tikigo (2021). The mean score of ($M=3.12$) with a standard deviation of ($SD=.548$) indicates sporadic lapses, indicating that respondents generally have a favorable opinion of compliance. Occasional non-compliance can be addressed by bolstering franchise

agreement enforcement procedures. Systems for monitoring, like recurring inspections and a commuter feedback system, can improve franchise holders' accountability.

The indicator with the highest mean of ($M=3.11$) and standard deviation of ($SD=.495$) is interpreted as High Compliance. Franchise agreements are regularly reviewed and updated to address changing needs and circumstances. (*Ang mga kasunduan sa prangkisa ay regular na nire-review at ina-update upang matugunan ang mga nagbabagong pangangailangan at kalagayan.*). Franchise agreements are regularly reviewed and updated to address changing needs and circumstances. The mean is ($M=3.11$),

Moreover, a standard deviation of ($SD=0.495$) is high compliance. Regular review and updating of franchise agreements are important in ensuring that the framework adapts to advancing conditions, such as population development and changes in fuel prices. The relatively low standard deviation indicates consistent assertion on this aspect. Tepmanee and Siridhara (2020) and Jin et al. (2019) emphasize the necessity of adaptive governance in public transportation to handle changing issues. Although there is potential for improvement, the mean score of ($M=3.11$) indicates that respondents acknowledge attempts to review and update franchise agreements. Incorporating operator and commuter input, authorities ought to establish a systematic franchise review timetable. This guarantees that the franchise system will continue to adapt to new needs, such as population expansion or a rise in visitors to Tagaytay.

The indicator with the highest mean ($M=3.10$) and standard deviation ($SD=.515$) is interpreted as High Compliance. The government is effectively enforcing both franchise and fare matrix regulations. (*Epektibong ipinapatupad ng pamahalaan ang mga regulasyon ng parehong prangkisa at pamasahe.*) The government is effectively implementing both franchise and fare matrix regulations. The mean is ($M=3.10$), and the standard deviation is ($SD=0.515$) high compliance. Respondents see the government's enforcement of regulations as effective. This suggests strong governance and oversight in ensuring franchise and fare matrix guidelines compliance. However, this indicator has the lowest mean score, indicating room for encouraging improvements in regulatory enforcement. According to Tikigo (2021) and Sunio et al. (2021), maintaining conformity in transportation networks requires effective government enforcement. The mean score of ($M=3.10$) indicates that there is still an opportunity for improvement despite the generally outstanding enforcement. Stronger enforcement tactics, such as designating compliance officers and imposing harsher penalties

for violations, can increase franchise and fare matrix regulations adherence. Results can also be improved by programs that teach operators the importance of compliance.

4. Is there a significant relationship between the demographic profile of respondents and their assessment of the fare matrix on public transportation affordability?

Table 4

Relationship between Assessment of the Fare Matrix on Public Transportation Affordability and Age

Variables	r value	df	p value	Decision	Interpretation
Assessment of the fare matrix on public transportation affordability	-0.119	278	0.047	Reject Ho1	There is a significant relationship between the assessment of the fare matrix on public transportation affordability and age
Age					

Legend: Reject Ho $p \leq 0.05$, Fail to Reject Ho $p > 0.05$

A significant negative correlation was found between age and assessment of the fare matrix on public transportation affordability ($r = -0.119$, $p = 0.047$). Since the p-value is less than 0.05, the null hypothesis (H_{o1}) was rejected, indicating a significant relationship between age and assessment of the fare matrix. This suggests that as age increases, perceptions of affordability tend to decrease slightly.

Table 4.1

Relationship between Assessment of the Fare Matrix on Public Transportation Affordability and Gender

Variables	r value	df	p value	Decision	Interpretation
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Assessment of the fare matrix on public transportation affordability	0.076	278	0.0205	Fail to reject Ho2	There is no significant relationship between the assessment of the fare matrix on public transportation affordability and gender
Gender					

Legend: Reject Ho $p < 0.05$, Fail to Reject Ho $p > 0.05$

The results showed no significant relationship between gender and assessment of the fare matrix on public transportation affordability ($r = 0.076$, $p = 0.205$). Since the p-value is greater than 0.05, the null hypothesis (H_{02}) was not rejected, indicating that gender does not significantly influence respondents' assessment of fare affordability.

Table 4.2

Relationship between Assessment of the Fare Matrix on Public Transportation Affordability and Civil Status

Variables	r value	df	P value	Decision	Interpretation
Assessment of the fare matrix on public transportation affordability	-0.034	278	0.568	Fail to reject Ho3	There is no significant relationship between the assessment of the fare matrix on public transportation affordability and civil status

Legend: Reject Ho $p < 0.05$, Fail to Reject Ho $p > 0.05$

A correlation analysis between civil status and assessment of the fare matrix on public transportation affordability revealed no significant relationship ($r = -0.034$, $p = 0.568$). As the p-value is greater than 0.05, the null hypothesis (H_{03}) was not rejected. This finding suggests that civil status does not play a significant role in shaping perceptions of fare affordability.

Table 4.3

Relationship between Assessment of the Fare Matrix on Public Transportation Affordability and Highest Educational Attainment

Variables	r value	df	p value	Decision	Interpretation
Assessment of the fare matrix on public transportation affordability	-0.038	278	0.524	Fail to reject Ho4	There is no significant relationship between the assessment of the fare matrix on public transportation affordability and highest educational attainment
Highest Educational Attainment					

Legend: Reject Ho $p < 0.05$, Fail to Reject Ho $p > 0.05$

Table 4.4 shows that the correlation between the highest educational attainment and assessment of the fare matrix on public transportation affordability was insignificant ($r = -0.038$, $p = 0.524$). The null hypothesis (H_{04}) was not rejected since the p-value exceeded 0.05. This result indicates that respondents' educational background does not significantly affect their perceptions of public transportation affordability.

Table 4.4

Relationship between Assessment of the Fare Matrix on Public Transportation Affordability and Role

Variables	r value	df	p value	Decision	Interpretation
Assessment of the fare matrix on public transportation affordability	0.104	278	0.084	Fail to reject Ho5	There is no significant relationship between the assessment of the fare matrix on public transportation affordability and role
Role					

Legend: Reject Ho $p < 0.05$, Fail to Reject Ho $p > 0.05$

Table 4.5 shows the relationship between a role (e.g., commuter, driver) and assessment of the fare matrix on public transportation affordability was analyzed, yielding no significant correlation ($r = 0.104$, $p = 0.084$). The null hypothesis (H_{05}) was not rejected, as the p-value was greater than 0.05. This suggests that a respondent's role in the transportation system does not significantly influence their assessment of the fare matrix.

The results imply that among the demographic variables analyzed, age was the only factor found to have a significant relationship with the assessment of public transportation affordability ($r = -0.119$, $p = 0.047$). The negative correlation suggests that older individuals may perceive public transportation as less affordable than younger respondents despite the overall high compliance rating of the fare matrix. This indicates that while most respondents favor public transportation affordability, older commuters may experience greater financial strain or have differing expectations regarding fare costs. Respondents between the ages of 21 and 30 are more critical of affordability and fare matrix conformity. According to Tikigo (2021), tricycle fare matrices frequently differ by region, with higher base fares found in places with fewer tricycles or longer routes. These differences may disproportionately impact younger people, who frequently have less money to spend and depend on public transit. Guo and Li (2021) contend that fare affordability is a crucial concern for passengers and highlight the critical role that pricing plays in the sustainability of public transportation. Younger commuters, especially those still in school or just starting their professions, are especially susceptible to price adjustments. Low-income individuals are disproportionately affected by affordability issues in public transportation, as noted by Chizeck & Mbonu (2023).

Younger commuters typically make up this group, which increases their awareness of the fare matrix. The critical opinions of younger respondents about fare matrix compliance point to unfulfilled expectations or increased pricing awareness. Vázquez-Grenno et al. (2024) demonstrate that lowering the cost of public transportation can significantly boost use, especially among younger users. This emphasizes pricing's importance in preserving user happiness and utilization rates within this group. In order to meet user-specific needs, such as price, Cua & Wan (2023) support innovative transportation systems like the Premium Point-to-Point Bus Service. Such focused efforts could be advantageous for younger travelers. Tepmanee and Siridhara (2020) recommend using willingness-to-pay surveys to optimize fare structures. The affordability issues raised by the younger respondents might be resolved in the Philippines by implementing such solutions.

However, gender, civil status, highest educational attainment, and role in the transportation system did not show significant associations with fare matrix assessment. This suggests that regardless of these demographic factors, respondents consistently rated the fare matrix with high compliance, indicating that public transportation fares in Tagaytay are generally perceived as fair and reasonable across different groups. These findings highlight that while age may influence affordability perceptions, the fare matrix remains largely compliant with public expectations across various demographic groups. Republic Act 4136 strongly emphasizes consistency in fare matrices and transportation laws, guaranteeing that tariffs are applied uniformly irrespective of demographic traits. The lack of notable diversity in perceptions across these factors may partly be attributed to this regulatory system. According to Aguilar et al. (2023), accessibility, cost, comfort, and safety are universal concerns for public transit users. Other than age, demographic factors may not significantly impact fare matrix views, which these common priorities could explain. According to Jin et al. (2019), public transportation systems strive for equal service delivery even though fare affordability and service quality are related. Disparities in perception based on gender, educational attainment, or other demographic characteristics may be lessened by this alignment.

V. DISCUSSION

This study aimed to assess whether the fare matrix accurately reflects tariff rates, whether tricycle and bukya operators are renewing their franchises, and whether commuters find the fare rates reasonable for their destinations for tricycle and "bukya" transportation in Tagaytay City. To explore this, the researcher used a quantitative descriptive method to assess compliance with the fare matrix and franchise rules and how these affect transportation affordability. Two hundred eighty participants (140 drivers/operators and 140 commuters) near Olivarez College Tagaytay were surveyed using structured questionnaires.

The findings showed high levels of compliance with both the fare matrix ($M=3.10$) and franchise regulations ($M=3.19$), suggesting that the current system is generally seen as fair, accessible, and effectively enforced. Most respondents agreed that fares were affordable and that franchise rules were implemented justly. Furthermore, the results show that the fare and franchise system contributes to a balance of affordability for commuters and fair compensation for operators, helping address the earlier concerns regarding fare inconsistency and unregulated operations. Moreover, the statistical analysis also found no significant

correlation between fare matrix perceptions and most demographic factors (role, gender, civil status, education), which supports the idea that the system is broadly accepted. Only age showed a slight negative correlation, indicating younger respondents may be more sensitive to fare affordability.

The study, therefore, offers evidence-based insights that help resolve questions about the fairness and functionality of the current fare matrix and franchise system in Tagaytay City.

This study was conducted on 140 drivers/operators and 140 commuters of Olivarez Plaza E Aguinaldo Highway Barangay San Jose near Olivarez College Tagaytay who always ride a tricycle/bukyo in their daily lifestyle through a survey questionnaire. The findings are based on the perceptions and experiences of these respondents only. As such, the study may not fully represent the opinions of all public transportation users and operators in Tagaytay City or other regions. Additionally, the study relied solely on survey questionnaires as the primary data collection tool, which may limit the depth of qualitative insights into the behaviors and motivations of respondents.

Based on the findings of this study, the researchers recommend that fare rates for bukya remain fair and accessible to all, particularly for minimum wage earners in Tagaytay City. Ensuring affordability will help maintain commuter satisfaction and encourage continued use of this mode of transportation. As commuters increasingly seek more comfortable and efficient travel options, the city government should consider expanding the franchising of bukya units to meet this growing demand. In line with this, the promotion of fare discounts for students, senior citizens, and persons with disabilities should be strengthened, and additional services that enhance the commuting experience should be explored. Moreover, given the high levels of compliance and public support observed in the study, continuous public awareness campaigns are encouraged to maintain a well-informed and cooperative commuter base. Hence, the Land Transportation Franchising and Regulatory Board (LTFRB) should also implement regular seminars, workshops, and training sessions for bukya drivers to uphold high service standards and broaden their knowledge of transportation regulations and commuter safety. Passenger safety must always be a top priority. Regulatory agencies should closely monitor operations to ensure all drivers meet safety requirements.

Finally, it is recommended to conduct further studies on public transportation systems using online surveys and digital tools. These methods will help gather broader and more current insights to support continued innovation, policy refinement, and improvements in transportation services within Tagaytay City.

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**Enhancing Road User Safety through Public Campaigns: An Perception on the
Motorcycle Helmet Act of 2009 Implementation in Tagaytay City**

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I. ABSTRACT

This study evaluates the effectiveness of the Motorcycle Helmet Act of 2009 in Tagaytay City, focusing on rider compliance and awareness. With the rising number of motorcycle accidents, the law aims to protect riders by ensuring helmet use. This research employs a quantitative design and gathers data from 150 motorcycle riders and 150 students at Olivarez College, Tagaytay. A structured questionnaire was used to assess the level of awareness and compliance with the helmet law, and data analysis was conducted using Pearson correlation to determine the relationship between demographic factors (such as age and riding experience) and compliance. The findings reveal that while there is a high level of awareness about the helmet law, younger riders and those with less experience are more likely to neglect wearing helmets, indicating a gap in compliance among these high-risk groups. The study also found that enforcement strategies, such as checkpoints and public campaigns, have raised awareness effectively, but there is room for improvement. It is recommended that more targeted public awareness campaigns be conducted, particularly among young and novice riders, and that the visibility of law enforcement be increased to ensure strict compliance. Additionally, penalties for repeat offenders could be strengthened to improve adherence to the law. This research underscores the importance of continuous efforts in law enforcement, public education, and policy refinement to ensure motorcycle safety in Tagaytay City, ultimately reducing motorcycle-related accidents and fatalities.

Keywords: *Motorcycle Helmet Act, Safety Compliance, Tagaytay City, Public Awareness, Motorcycle Safety*

IV. INTRODUCTION

The study highlights the need for motorcycle safety, especially the use of helmets to help protect against serious injury and death. This highlights the urgency of raising awareness of and implementing Republic Act No. 10054, or the Motorcycle Helmet Act of 2009, a law requiring motorcycle drivers and their back riders to wear standard protective helmets. As criminology students, the researchers also recommend fully enforcing the "No Helmet, No Ride Policy" in Tagaytay City to be a model in abiding by the laws and maintaining public safety. The introductory paragraphs also illustrate helmet use is not the distracting device that some claim it is but a necessary step to ensure one's life is saved.

According to Du (2020), Road traffic accidents are the most common cause of severe traumatic brain injury (TBI) among young populations worldwide. According to Sesmal et al. (2020), road traffic accidents are a major emerging cause of illness and death worldwide due to rapid modernization. These unfortunate incidents are mainly caused by ignorance and deliberate violations of existing safety regulations; speeding, driving under the influence, using mobile phones while driving, and neglecting safety measures like helmets or seat belts are common factors. According to Akuh et al. (2023), enhancing helmet law in reducing motorcycle-related incidents remains a lack of understanding regarding the impact of traffic law enforcement and road safety education on the connection between factors influencing helmet use and overall helmet usage. Agreeing with Trespalacios et al. (2019), the driver's carelessness and diversion are broadly recognized as two of the foremost basic components affecting road safety worldwide. These are challenges in implementing road safety campaigns.

The study aimed to assess the effectiveness of implementing the Motorcycle Helmet Act of 2009 (R.A. No. 10054) in promoting road user safety regarding public awareness campaigns, law enforcement, and whether sanctioned penalties are being enforced. The study specifically seeks to determine the level of knowledge and extent of practices of motorcycle riders and students in Tagaytay City, Philippines. Determine the association between demographic characteristics of respondents and compliance with the act, and reflect if public health advertising campaigns are achieving behavior change effectiveness. Collecting data using tailored questionnaires and quantitative analysis, the study aims to generate contributing knowledge to facilitate better road safety interventions and policy development for vulnerable groups such as young and inexperienced riders.

V. METHODS

The researchers used the Quantitative Method. This method utilizes a quantitative research methodology that gathers quantifiable information that can be used for statistical inference on your target audience through data analysis. The primary purpose of quantitative research is to describe the characteristics of a population of phenomena. The researcher will utilize a simple random sampling method to gather their test members by having a break even with and reasonable chance of being chosen to take an interest in them consider; this strategy minimizes the plausibility of choice inclination and grants generalizations to a bigger population by ensuring that each part has an rise to chance of being included within the test. The respondents of this study were the selected fifty (150) motorcycle riders living in Tagaytay City and fifty (150) students at Olivarez College Tagaytay who were available to answer the survey questionnaire.

The researchers used a self-made, printed survey questionnaire with closed-ended questions to collect data. The survey aimed to determine the respondents' level of awareness about the importance of wearing protective helmets and their understanding of the law's penalties, enforcement, and safety measures. This aim is to provide a clear understanding of the demographic characteristics of the respondents, their level of awareness regarding the Motorcycle Helmet Act of 2009, and the relationship between their profiles and compliance with the law. The data collected from this survey formed the basis for evaluating the effectiveness of the law and the impact of public safety campaigns.

Scale ranges

3.26	-	4.00	= Very Highly Implemented
2.51	-	3.25	= Highly Implemented
1.76	-	2.50	= Not so Implemented
1.00	-	1.75	= Not Implemented

IV. RESULT

Table 1

Demographic Profile of the respondents

Profile		Frequency (n=400)	Percentage
Gender	Female	118	39.6%
	Male	170	57%
	Prefer not to Mention	10	3.4%
Age	18 years old and Below	36	12.1%
	19- 25	235	78.9%
	26 - 30	17	5.7%
	31 years old and Above	10	3.4%
Role	Student	253	84.9%
	Driver	18	6%
	Private employee	18	6%
	Government Employee	4	1.3%
	Prefer not to Mention	5	1.7%
Length of Driving	1 year and below	158	53%
	1 - 2	43	14.4%
	3 - 5	37	12.4%
	More than 5 years	59	19.8%
Classification of Drivers License	A (Motorcycle)	207	69.5%
	A1 (Tricycle)	13	4.4%
	B (Cars)	76	25.5%
	B1 (van or Jeepney)	2	.7%

Table 1 presents the demographic profile of the respondents, which included 298 people composed of 150 motorcycle riders from Tagaytay City and 150 students from Olivarez College. The information reveals that most respondents (78.9%) were aged 19 to 25, showing that young adults rule the motorcycle user population within the area. Most respondents were male (57%), aligning with national trends that appear motorcycling is more common among men. Regarding occupation, students comprised the most significant portion

at 84.9%, proposing that motorcycles are a prevalent mode of transportation for school-related travel. Moreover, over half (53%) had less than one year of driving involvement, and the most common license type held was classification “A” for motorcycles (69.5%). This demographic profile shows that much riding population is young and inexperienced. According to the Philippine Statistics Authority (2020), young male drivers are more likely to be included in motorcycle-related accidents, underscoring the significance of focusing on safety education and helmet law enforcement for this group. It proposes a fundamental need to prioritize security campaigns and requirements for young and novice riders, especially students. Given their limited experience and high vulnerability, instruction programs custom-made for schools and youth-focused open campaigns might be instrumental in improving helmet compliance and lessening accident risks.

Table 2

Respondents’ perception on the motorcycle act of 2009.

Category Law	Mean	SD	V.I.
1. Public information about the motorcycle helmet act of 2002 is important to understand clearly and easily. <i>(Ang pampublikong impormasyon tungkol sa motorcycle helmet act ng 2002 ay mahalagang maunawaan ang malinaw at madali.)</i>	3.78	.476	VHI
2. The public campaign clearly communicates the specific penalties for not wearing a helmet under the motorcycle helmet act. <i>(Malinawan Ipinapahayag ng pampublikong kumpanya ang mga partikular na parusa para sa hindi pagsusuot ng helmet sa ilalim ng motorcycle helmet act.)</i>	3.68	.509	VHI
3. Safety campaigns have been supported by law enforcement efforts to enforce the helmet law and hold violators accountable. <i>(Ang mga kampanya ng pangkaligtasan ay sinusupportahan ng mga pagsisikap ng pagpapatupad ng batas naipatupad ang batas ng helmet at pananagutan ng mga lumalabag.)</i>	3.67	.506	VHI
4. Supporting the continued and stricter implementation of the Motorcycle Helmet Act to improve road safety. <i>(Pagsuporta Patuloy at mas mahigpit na pagpapatupad ng Motorcycle Helmet Act upang mapabuti ang kaligtasan sa kalsada.)</i>	3.67	.536	VHI
5. The Mandatory use of motorcycle helmets is effective to reduce motorcycle incidents. <i>(Ang Mandatory Ng Paggamit ng helmet ng motorsiklo ay epektibo para mabawasan ang insidente ng motorsiklo.)</i>	3.71	.516	VHI
Mean implementation of law on motorcycle act of 2009	3.70	.373	VHI

Table 2 shows the respondents' perception of the implementation of road user safety under the Motorcycle Helmet Act of 2009, focusing on law-related perspectives. With a general mean score of 3.70, the findings demonstrate that the law is Very Highly Implemented (VHI) in Tagaytay City. Respondents strongly agreed that open information about the law is clear and straightforward (mean = 3.78), proposing that communication efforts have

succeeded. Furthermore, they recognized the law's ability to decrease motorcycle-related incidents (mean = 3.71) and supported its continued and stricter enforcement (mean = 3.67). Other indicators, such as the clarity of the campaign informing about penalties (mean = 3.68) and the backing of safety campaigns by law enforcement (mean = 3.67), also received high ratings. These responses show that the public perceives the Helmet Act's legal system and educational efforts as informative and impactful. According to Malang et al. (2023), public awareness and lawful understanding are basic in interpreting road safety knowledge into real behavioral change, which aligns with the positive perception of the respondents in this study. It proposes that awareness campaigns and legal arrangements under the Motorcycle Helmet Act are successfully coming to their intended gathering of people. However, to preserve and further improve compliance nonstop and advance public education efforts—mainly focusing on young riders—should be implemented to strengthen knowledge and reliable helmet-use behavior.

Table 3*Enforcement*

Enforcement	Mean	SD	V.I.
Conducting of check point is necessary to compliance to the law <i>(Ang pagsasagawa ng check point ay kinakailangan pag makasuno sa batas)</i>	3.61	.546	VHI
The visibility of law enforcement on the roads has positively impacted the motorcycle riders' compliance with the Motorcycle Helmet Act. <i>(Ang kakayahang makita ng mga nagpapatupad ng batas sanga kalsada ay may positibong epekto pagsunod ng mga sakay ng motorsiklo sa Motorcycle Helmet Act).</i>	3.59	.533	VHI
Provide comprehensive training and develop standardized procedures for law enforcement officers. <i>(Magbigay ng komprehensibong pagsasanay at bumuo ng mga standardized na pamamaraan para sa opisyal ng pagpapatupad ng batas).</i>	3.60	.549	VHI
The penalties for non-compliance with the Motorcycle Helmet Act are implemented effectively and serve as obstruction. <i>(Ang mgaparusa para sahindipagsunodsa Motorcycle Helmet Act ay epektibong ipinatupad at nagsisilbing sagabal).</i>	3.43	.709	VHI
The public perceives law enforcement efforts as fair and effective in promoting compliance with the Motorcycle Helmet Act. <i>(Nakikita ng publiko ang mga pagsisikap pagpapatupad ng batas bilang batas at epektibo sa pagtataguyod ng pagsunod sa Motorcycle Helmet Act).</i>	3.53	.592	VHI
Mean implementation of enforcement on Motorcycle act of 2009	3.55	.431	VHI

Table 3 highlights the respondents' perception of the enforcement aspect of the Motorcycle Helmet Act of 2009. The data shows a Very Highly Implemented (VHI) rating, with an overall mean score of 3.55, indicating that enforcement efforts in Tagaytay City are

perceived as effective and visible. The highest-rated item was conducting checkpoints (mean = 3.61), which respondents viewed as essential in ensuring compliance with the law. Other indicators, such as the need for standardized training for law enforcers (mean = 3.60) and the visibility of enforcement personnel on the roads (mean = 3.59), were also rated highly, showing strong support for proactive and consistent enforcement. Respondents also agreed that penalties are properly implemented (mean = 3.43) and that law enforcement efforts are generally considered fair and effective (mean = 3.53). These findings underscore the critical role of enforcement presence in motivating helmet use and ensuring adherence to the law. The World Health Organization (2018) noted that visible and consistent enforcement of road safety laws significantly reduces risky behaviors among motorcyclists. It contributes to lower crash-related injury and fatality rates. The positive public perception of enforcement efforts suggests that law enforcement agencies in Tagaytay play a crucial role in upholding helmet regulations. However, further enhancement in training and coordination among officers could strengthen consistency and fairness in implementation, ensuring that enforcement is seen and trusted by all sectors of the riding population.

Table 4

Penalties

Penalties			
The fine of one thousand five hundred pesos for first-time offenders of the Motorcycle Helmet Act is appropriate and effective in promoting compliance. <i>(Ang multanaisanglibolimangdaang piso para samgaunang beses nagkasala ng Motorcycle Helmet Act ay angkop at mabisasapagtataguyod ng pagsunod).</i>	3.42	.697	VH
The fines associated with the Motorcycle Helmet Act are perceived as fair by the public <i>(Ang multa nauugnay sa Motorcycle Helmet Act ay itinuturing na batas ng publiko).</i>	3.44	.660	VH
The implementation of penalties under the Motorcycle Helmet Act has led to an increase in helmet usage among motorcyclists. <i>(Ang pagpapatupad ng napasailalim ng Motorcycle Helmet Act ay humantong pagtaas ng paggamit ng helmet samgong motorsiklo).</i>	3.53	.604	VH
The fear of penalties motivates me to wear a helmet while riding my motorcycle. <i>(Ang takotsamgaparusa ay nag-uudyok namagsuot ng helmet habang nakasakaysaaking motorsiklo)</i>	3.58	.571	VH
The penalties outlined in the Motorcycle Helmet Act are necessary for improving road safety. <i>(Ang mga parusa nanakabalangkassa Motorcycle Helmet Act ay kinakailangan para sa pagpapabuti ng kaligtasan sa kalsada).</i>	3.65	.574	VH
Mean implementation of penalties on motorcycle act of 2009	3.52	.462	VH
Mean implementation of road user safety on motorcycle helmet act of 2009	3.59	.371	VH

Table 4 presents the respondents' evaluation of the Motorcycle Helmet Act 2009 penalties. The general mean score was 3.52, demonstrating that the penalty framework is Very Highly Implemented (VHI). The highest-rated thing was the belief that penalties are vital for improving road safety (mean = 3.65), followed by the inspiration to wear a helmet out of fear of penalties (mean = 3.58). Respondents also agreed that enforcing penalties has increased helmet usage (mean = 3.53), and they see the fines as reasonable (mean = 3.44). Even though the ₱1,500 fine for first-time offenders received the lowest score (mean = 3.42), it still fell within the VHI category, proposing common acknowledgment. These results suggest that penalties play a significant psychological and practical part in advancing compliance with helmet regulations. When connected to the demographic profile in Table 1—which appears that most riders are young students with less than a year of driving experience—it becomes clear that fear of penalties may serve as a basic external help for safe behavior, particularly among inexperienced riders. Young male drivers are likelier to engage in risky road behavior, strengthening the need for strict and reliable penalties to drive behavioral change. It confirms that penalties are successful deterrents, especially for young and inexperienced riders. A graduated penalty framework that increases with repeated violations might be investigated to encourage improvement. At the same time, awareness campaigns should proceed, emphasizing both the legal.

Table 5

Pearson Correlation between the implementation of user safety acts of 2009 and the profile of the respondents.

		Total	Decision	
Age	Pearson's r	-0.004		
	Df	296		
	p-value	0.942	Accept Null	
	N	298		
gender	Pearson's r	0.055		
	Df	296		
	p-value	0.343	Accept Null	
	N	298		
Role	Pearson's r	-0.064		
	Df	296		
	p-value	0.269	Accept Null	
	N	298		
length of driving	Pearson's r	0.050		
	Df	296		
	p-value	0.392	Accept Null	
	N	298		
Classification license	driver's	Pearson's r	0.154	** Positive
		Df	296	
		p-value	0.008	Reject Null
		N	298	

Table 5 shows the Pearson correlation results examining the relationship between respondents' profiles and the implementation of the Motorcycle Helmet Act of 2009. The examination revealed that most demographic variables—age, gender, role, and length of driving experience—showed no statistically significant relationship with the usage of the law, as all their p-values were greater than 0.05. However, a significant positive relationship was found between

the driver's license classification and the law's usage ($p = 0.008$), demonstrating that those holding appropriate motorcycle licenses were more likely to comply with helmet regulations. This finding is reliable with Table 1, which showed that 69.5% of respondents held an "A" license for motorcycles. These appropriately licensed individuals may have experienced formal driving instruction or safety training, making them more aware of legal obligations. According to the Philippine Measurements Specialist (2020), licensing systems can be a portal to improving road safety compliance through organized education and regulation. It strengthens the significance of joining comprehensive safety education into the licensing process. Authorities might consider strengthening licensing requirements and utilizing them as a platform to command helmet safety training, particularly for young or first-time applicants who dominate the rider population in areas like Tagaytay.

V. DISCUSSION

The research highlights a significant gap between public knowledge and consistent behavioral compliance with the Motorcycle Helmet Act of 2009 in Tagaytay City, especially among young, inexperienced, and student riders. While public campaigns and requirement mechanisms are viable, determining non-compliance among key demographics reveals the need for more focused, maintained interventions. Therefore, The research space lies in bridging the gap between awareness and consistent helmet-use behavior. The solution includes a multi-pronged approach: forces youth-focused safety education in schools and communities, joining helmet safety training into licensing requirements, and extending the visibility and frequency of enforcement operations like checkpoints. Moreover, improving penalty structures for repeat offenders and promoting social standard campaigns utilizing peer influencers might strengthen safe riding practices. Addressing this research space with a comprehensive, community-engaged procedure will not only improve adherence to the law but also essentially reduce motorcycle-related injuries and fatalities in the city.

The research effectively evaluated the awareness, enforcement, and perceived effectiveness of the Motorcycle Helmet Act of 2009 in Tagaytay City; it did not completely capture the actual behavioral compliance of respondents—specifically, whether people reliably wear helmets in real-life situations. The study depended on self-reported information through surveys, which may be affected by social desirability bias and thus needs observational or

empirical approval of helmet usage. Also, the research did not investigate deeper psychosocial factors—such as states of mind, social impacts, or peer pressure—that may influence compliance, particularly among young riders. The geographic scope was restricted to Tagaytay City and a specific student population, limiting the discoveries' generalizability to other regions or demographic groups. At last, the study did not include feedback from enforcement officers or local authorities, which seem to have given a more comprehensive view of the challenges in implementing the law on the ground. These limitations show opportunities for further research to enhance understanding and strengthen policy recommendations.

It is recommended that future studies consolidate direct observational strategies to survey actual helmet usage among motorcycle riders instead of relying solely on self-reported data. This will give a more accurate picture of compliance behavior. Also, extending the scope of the study to include qualitative data, such as interviews or focus group discussions with riders, law enforcement officers, and local policymakers, could reveal the basic psychosocial and social variables influencing helmet use. Broader geographical coverage beyond Tagaytay City and including different age and occupational groups would also improve the study's generalizability. Finally, collaborating with local government units and transportation offices can assist researchers in gathering more comprehensive experiences and co-develop focused interventions that respond to behavioral and enforcement-related challenges.

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Enhancing Firearm Regulations: Insights from the Philippine

National Police of Amadeo, Cavite

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I. ABSTRACT

The illegal acquisition and possession of firearms continue to be a critical issue in the Philippines, undermining public safety and contributing to rising crime rates. Despite the implementation of RA10591, which regulates firearms, its enforcement remains weak due to insufficient resources, public opposition, and law application gaps. This study focuses on the perspectives of the Philippine National Police (PNP) of Amadeo, Cavite, to evaluate the effectiveness of the law in controlling firearms and reducing crime. Through unstructured interviews with PNP personnel, the research identifies the strengths and limitations of the law's implementation, particularly the challenges law enforcement faces in enforcing the law. The study finds that while the PNP of Amadeo, Cavite, has made efforts such as executing search warrants, arresting offenders, and running public awareness campaigns, these actions are often hindered by limited funding, inadequate training, and resistance from specific communities, especially in rural areas. Despite these challenges, the PNP continues demonstrating a commitment to public safety through proactive measures like Oplan Katok, aimed at voluntarily surrendering unregistered firearms. The research emphasizes the importance of improving community engagement, strengthening trust between law enforcement and citizens, and increasing resources for better enforcement. The study concludes that enhancing educational outreach and fostering collaboration between the PNP and local communities is crucial to improving compliance with firearm regulations, reducing illegal possession, and ensuring public safety in the long term.

Keywords: Firearm Regulation, RA10591, Gun Control, Philippine National Police, Community Engagement.

II. INTRODUCTION

A growing number of issues and problems are arising that concern the illegitimate acquisition of firearms, which unfortunately is not given the attention of the government agency's concern. The prevalence of criminality has been called a serious issue in society. This has challenged the persons in authority to suppress criminality and, likewise, the illegal possession of these firearms. As stated by Mellijor (2022), as the world changes, there are urgent concerns about the importance of illegal weapons that are regrettably used in criminal activity and international organized crime. Despite the problems that pertain to national security, only a few preventive security measures were created to combat these illegalities.

The Comprehensive Firearms and Ammunition Regulation Act, or RA 10591, is governed by the Implementing Rules and Regulations (IRR) of RA 10591. These regulations specify the laws about the production, importation, sale, possession, and penalties of firearms and ammunition in the Philippines. These laws forbid engaging in illegal activity, smuggling weapons, tampering with firearms, and the custody and forfeiture of seized property. Illegal firearm possession and trafficking persist despite RA10591 regulations, causing increased gun-related crimes and fatalities, with 7,702 deaths in the Philippines in 2014. Inadequate monitoring and enforcement of RA10591's provisions create loopholes that allow individuals to circumvent the law, posing a threat to public safety. (Peace, b. A. C. O.) mentioned that numerous factors, including poverty, economic instability, violent extremism, inequality, conflict, community violence, and gender-based violence, pose a danger to peace and security in the Philippines.

In 2020, there were people arrested in Amadeo, Cavite, for illegal possession of firearms. Using fifteen search warrants for a criminal act, officials detained eight people in Amadeo Cavite and confiscated firearms, magazines, and ammunition. Understanding the perceptions of the Philippine National Police and residents who have firearms in Amadeo, Cavite can provide insights into the effectiveness of firearm regulations. Investigating the relationship between perceived effectiveness and crime reduction can help identify barriers to effective law enforcement. The study's findings can inform policy interventions to improve

law enforcement practices and strengthen firearm regulations. This study can also contribute to the existing knowledge base on firearm regulation, law enforcement practices, and public safety initiatives, offering valuable insights for policymakers, law enforcement agencies, and researchers in the field of criminology.

Therefore, with these rising issues that concern the security of the country, providing enhancements to gun control policies is necessary to support effective and efficient implementations and to lessen or at least minimize the problems encountered with gun control policies. Researchers aim to determine the effectiveness of firearm regulation insights from the Philippine National Police of Amadeo, Cavite, a town with 41,901 residents as of the 2020 Census.

This study aimed to elucidate the answer to the following questions:

1. What is the state of implementation of firearm regulations in Amadeo, Cavite?
2. What specific steps does the Philippine National Police (PNP) in Amadeo, Cavite, take to ensure compliance with firearm regulations among residents?
3. What challenges are encountered by the uniformed members of the Philippine National Police of Amadeo, Cavite, in firearms crimes and incidents?
4. What action plan can be proposed based on the findings of the study?

This study is anchored on the **Strain theory** that supports the study "Enhancing Firearm Regulation: Insights from the Philippine National Police of Amadeo, Cavite." According to the strain theory, when people experience tension or strain between society's ideals and their means to attain them, they may act illegally. In terms of weapon control and law enforcement procedures, this theory can assist in explaining how the municipal law enforcement Personnel in Amadeo, in Cavite, have been influenced by the firearms regulation statute, RA10591. Since people might pick up abnormal behaviors by watching others in their social surroundings, the theory also emphasizes how social learning shapes people's actions. Based on their encounters with coworkers, superiors, and the community, the law enforcement personnel in Amadeo, Cavite, may adopt particular attitudes and behaviors regarding weapon regulation.

The input-process-output (IPO) model was applied. The input contains the respondent's profile and all the information specified in the problem statement. The process involves research design, instrumentation, data gathering, data analysis, and how the results were gained through the responses of the Municipal Police Personnel and residents from

Amadeo, Cavite. The process involves research design, instrumentation, data gathering, and analysis. For the output, it is being specified that the outcome of the conducted study.

The beneficiaries of this study are criminology students, the community, police personnel, and future researchers. This study is limited to the PNP of the Municipal Police Station in Amadeo, Cavite.

III. METHODS

To collect information about the Comprehensive Firearms and Ammunition Regulation Act 10591 the researchers used Qualitative research to determine the enhancing firearm regulations insights from the Philippine National Police of Amadeo, Cavite. This approach aims to uncover the meanings and interpretations participants give to their experiences by collecting and categorizing data. Descriptive research studies analyze the characteristics of a population, pinpoint issues within a group, an establishment, or a population size, or investigate differences in behaviors or customs throughout organizations or even nations.

Researchers applied Thematic analysis to gather opinions and identify patterns, themes, and insights from qualitative interview data, which involves coding, categorizing, and interpreting responses. Thematic analysis is mainly used for the analysis of qualitative data. According to Braun and Clarke (2006), it is the process of identifying and analyzing different themes in the data. It is a straightforward, adaptable, and reliable approach. It provides the data with rich, thorough, and transparent meaning that can aid in formulating the findings. Familiarization, code formulation, topic production, theme evaluation, theme definition and naming, and report construction are the six processes of thematic analysis (Braun & Clarke, 2006).

The study was conducted at Amadeo Municipal Police Station. The researchers chose the area because it has 41,901 residents as of the 2020 Census. In this study, the instrument used is a structured interview. Participants will be asked about their status, how effective the strict implementation of RA 10591 is, their challenges faced in firearms crimes and incidents, and lastly, the relationship between the strict implementation of RA 10591 and the reduction in firearm-related incidents. Ensure that the research instrument interview questions are aligned with the research objectives and measure what they intend to measure. The researchers used a purposive sampling method for those individuals with pertinent expertise

and experience in firearm control and law enforcement. In addition to this, the researchers have 10 police personnel who are available to answer the questionnaire.

For the data gathering procedure, upon approval of the study, the researchers first guarantee the availability of the respondents to be interviewed in this study. The researchers will first give a letter to their respective research advisers. When the study is approved, the researchers will conduct a one-on-one interview with police personnel. The researchers will provide a permission letter that will regard the approval of the respondents to be interviewed, the use of a formal interview, and a recorder. After the interview, the researchers will give their deepest gratitude to the respondents. Lastly, when the interview is made, the researchers will interpret the interview by listening to the recordings. It is time to do the coding and analysis to determine the firearm regulation enhancement.

IV. RESULTS

Problem No. 1: What is the state of implementation of firearm regulations in Amadeo, Cavite?

Theme 1: Sustainable of Firearms and Registration

This theme illustrates that the enhancing firearms and regulation insights from the Philippine National Police of Amadeo, Cavite (1) Implementing (2) Keeping (3) Served (4) Enforcing (5) Implemented (6) Doing (7) Surrendered (8) Beautiful (9) Doing.

Subtheme 1.1: Proactive Communication

This sub-theme pertains to the present gun regulations in PNP in Amadeo, Cavite, which has taken a proactive stance in enforcing strict adherence to the Comprehensive Guns and Ammunition Regulation Act. Search warrants are carried out, people are arrested for unlawful possession, and unregistered guns are voluntarily turned in through initiatives like Oplan Katok. Additionally, the PNP runs educational initiatives to increase public knowledge of gun control legislation. Despite some obstacles, including few resources and public opposition, the PNP Amadeo, Cavite, is dedicated to improving public safety through ongoing enforcement and encouraging community collaboration.

Mellijor (2022) stated that while both gun owners and PNP officers gave the program a "Highly Implemented" rating, there were significant problems with both enforcement and monitoring. Despite these challenges, the government has been reasonably successful in enforcing gun control laws.

Table 1

Subtheme 1.1: Proactive Communication

DATA SOURCE	EVIDENCE
Interview	<p>P1 “We are implementing RA. 10591”</p> <p>P2 “Keeping a close watch on the gun”</p> <p>P3 “We document, we've served every home”</p> <p>P4 “We are enforcing this tilt in Republic Act 10591”</p> <p>P5 “Implemented properly”</p> <p>P6 “We are doing our job”</p> <p>P7 “We are doing our work”</p> <p>P8 “Surrendered to our station”</p> <p>P9 “it’s beautiful”</p> <p>P10 “Already doing”</p>
Observation	<p>During the interview, participants can answer the questions seriously as a law enforcer. The researcher observed that the participants' emotions reflected a dedication to their work to enforce the Republic Act 10591. Additionally, they patrol the streets door-to-door to check firearms and encourage people to turn in guns voluntarily. However, their approach was not just about enforcement; it was about winning the people over, building trust, and making everyone an owner of a safe town.</p>
Data/Documentation	<p><i>Exhibit A</i> showcases an Oplan Katok by Republic Act 10591. In order to ensure compliance with the law, this Oplan Katok entails officers going from house to house to check for unauthorized firearms and expired firearm licenses. Officers provide interim custody for firearms whose licenses have expired until they are renewed during these visits, and they also teach gun owners about the value of compliance.</p>

Subtheme 1.2: Community Engagement

This sub-theme pertains to the Amadeo PNP in Cavite proactively ensuring that individuals comply with firearms laws through various means. They enforce laws, monitor gun owners, and ensure all individuals renew their licenses and register firearms. They also arrest individuals who violate the law by having unregistered firearms and upholding the law. The public has been complying by turning in illegal firearms, and the PNP is exceptionally proud of the progress. Generally, they proactively ensure firearms safety and proper regulation, and the Amadeo is safer for all.

According to the study of Bobong et al. (2023), it indicates that community engagement significantly enhances the effectiveness of law enforcement efforts and also community satisfaction with the PNP's Operational Plan against deadly weapons in Ozamiz City highlighted the importance of positive police-community relationships in fostering trust and cooperation.

Table 2

Subtheme 1.2: Community Engagement

DATA SOURCE	EVIDENCE
Interview	P1 “have requirements to get one”
	P2 “we have (PCR)Police community Relation section”
	P3 “We will begin all our awareness”
	P4 “We compete with them”
	P5 “We conducted our police community relations officer”
	P6 “We have OPLAN BANDILLO”
	P7 “We always have OPLAN BANDILLO”
	P8 “Is always an excuse for being caught with a gun or being told that they have a gun, saying that it is only for protection”
	P9 “There are higher percentages now, but there are still those that were previously obtained that they did not understand much”
	P10 “We are passing a notice so that they will be aware that if they do not renew”

Observation During the interview with the participants, they told how they stay in touch with the people to enable gun compliance. Through their Police Community Relations (PCR) department, they reach out to the people, conducting awareness and disseminating information through OPLAN BANDILLO against illegal possession of firearms. The participants also told how they remind the people to renew their licenses and educate them on why they need a weapon, such as self-defense.

Data/Documentation *Exhibit B* shows that the OPLAN BANDILLO to deter illegal gun possession and proactively remind gun owners to have their gun licenses renewed. While most people are becoming more aware of these laws, there are still a few who do not entirely know about them, and there are those who still look for excuses, such as having a gun for personal defense. This means that despite improvement, more education and awareness are still required in order to achieve full compliance with gun laws.

Exhibit C highlights the barangay assembly about Police Intervention and F.E.E.L. S.A.F.E.R. (Firearms and Explosives from Candidates/Supporters/Kins/Juridical for Safekeeping and/or Disposal).

Problem No. 2: What specific steps does the Philippine National Police (PNP) in Amadeo, Cavite take to ensure compliance with firearm regulations among residents?

Theme 2: Support for The Pillars of Ethical Offenders

This theme illustrates that Enhancing Firearms and Regulation: Insights from the Philippine National Police of Amadeo, Cavite, illustrate how to improve firearms and regulations: (1) Clarity (2) Background (3) do (4) File (5) Conduct (6) Visitation (7) Discussion (8) Disseminate (9) Sending.

Subtheme 2.1: Financial support

This sub-theme illustrates that the Philippine National Police (PNP) in Amadeo, Cavite, ensures compliance with firearm regulations through specific measures under Republic Act No. 10591. They conduct mandatory seminars to educate residents on firearm registration, safe storage, and legal responsibilities. Regular site visits are performed to inspect compliance among licensed firearm owners, while Oplan Katok operations target the recovery of unregistered firearms. Violators are issued warnings or face legal action, and reminders are sent to licensed owners about renewal deadlines. Information is disseminated through community bulletins, social media, and local radio to maintain awareness. These initiatives are supported by financial resources, enabling sustained enforcement, educational campaigns, and logistical operations to enhance compliance and public safety.

In order to effectively enforce firearms regulations, financial support is essential. Enacted by Republic Act No. 10591, the Comprehensive Firearms and Ammunition Regulation Act. The Senate recently approved a bill that seeks to increase firearm control, supported by Senator Ronald "Bato" Dela Rosa. This shows a legislative commitment to this goal, which may include financing provisions for enforcement and educational activities.

Table 3

Subtheme 2.1: Financial support

DATA SOURCE	EVIDENCE
Interview	P1 " Here, our government has enough financial support for the implementation of this law”
	P2 " we lack manpower, but in terms of mobility”
	P3 " financial support to the Operate Personnel”
	P4 " will be here, as the FEO, the Firearms Exclusive Office, do the caravan”
	P5 "more inter-agency coordination, that's support, especially for the LGUs, because for the PNP,”
	P6 " has changed since then, it's still the same until now ”
	P7 " has changed since then, it's still the same until now “
	P8 "They are doing their job and their obligations as law enforcers to implement the implementation of RA 10591.”

P9	" there is a relationship with the community”
P10	“We don't have any specific incidents caused by conflict”
Observation	During the interview, it was mentioned that the government provides enough financial support for RA 10591, but challenges remain in manpower and mobility. The Firearms Exclusive Office (FEO) conducts caravans to assist gun owners, and better coordination with LGUs is needed to support the PNP. While implementation has not changed much, the PNP continues to enforce the law and maintain good community relations. So far, no major conflicts related to firearms have been reported, showing its effectiveness.
Data/Documentation	<i>Exhibit D</i> shows that they have a PNP Command Conference.

Subtheme 2.2: Human Recommendation

This sub-theme illustrates that to enhance firearm regulations enforcement under RA 10591, the Philippine National Police (PNP) of Amadeo should prioritize building stronger community relationships and leveraging financial resources to support their programs. Increasing public awareness through regular seminars and information campaigns can improve compliance and understanding of the law. Expanding the scope of OPLAN KATOK with better logistical support, such as additional vehicles and personnel, will enhance house-to-house visits and inspections. The PNP should also consider establishing partnerships with local government units and stakeholders to provide financial assistance for community-based programs promoting responsible firearm ownership. Furthermore, digitalizing tracking and monitoring firearms through an online database can streamline operations and reduce manual errors. The PNP can strengthen its enforcement mechanisms by implementing these recommendations and fostering a safer, more informed community.

Table 4

Subtheme 2.2: Human Recommendation

DATA SOURCE	EVIDENCE
Interview	P1 " We are following the order from above”

-
- P2** " We can do anything other than giving reminders on social media and giving out fliers”
- P3** "Just pursue the awareness because it's so divided by your public awareness”
- P4** "They raise a penalty. Those who are caught in unrenewed firearms or those who are late used to bad”
- P5** "What we are trying to achieve is the effectiveness of 10591. So according to that, maybe the power of the police in the police community relationship is also there, so the trust should be improved”
- P6** "Just intensify OPLAN KATOK and don't stop reminding people”
- P7** "OPLAN KATOK is always just an order from the top. OPLAN KATOK is just intense and doesn't stop reminding people.”
- P8** "Keep updating among the recommendations, those are the ones when the police come, such as lectures”
- P9** "Community awareness then good harmonious relationship with the community to be effective in 10591.”
- P10** “We conducted a seminar. We are summoning the gun owners who use guns properly.”

Observation

During the interview, participants emphasized their goal of improving firearm law enforcement. They use social media and flyers to inform the public, but many are still unaware of the rules. They believe that strengthening OPLAN KATOK and raising penalties for expired firearm licenses would help. Most importantly, they said trust between the police and the community is key. They suggested holding seminars and talks to educate gun owners and involve the public in improving firearm safety.

Data/Documentation *Exhibit E* is a post from the PNP Amadeo's Facebook page about firearms. They use social media to remind people, especially gun owners with expired licenses, to renew.

Exhibit F is one of the significant accomplishments of PNP Amadeo. The ADFER in line with “OPLAN KATOK” is the operational campaign of the Philippine National Police against loose firearms.

Problem No. 3: What are the challenges encountered by the uniformed members of the Philippine National Police of Amadeo, Cavite, in firearms crimes and incidents?

Theme 3: Strengthen awareness engagement

This theme demonstrates that Enhancing Firearms and Regulation: Insights from the Philippine National Police Of Amadeo, Cavite (1) House (2) Comply (3) Search (4) Gone (5) Holding (6) Surrendered (7) Report (8) Applying (9) encounter.

Subtheme 3.1: Utilize of Digital Platform for Awareness Campaign

In Amadeo, Cavite, significant challenges in enforcing Republic Act No. 10591 include the presence of unregistered firearms, non-compliance with legal requirements such as license renewals, and resistance to surrendering loose firearms despite initiatives like "Oplan Katok." The Philippine National Police (PNP) also faces resource limitations, which hinder the effectiveness and frequency of enforcement operations. Additionally, while educational campaigns are conducted, there is a need for more sustained public awareness efforts to ensure all residents understand and comply with firearms.

According to Boine et al. (2022), digital platforms can enhance public awareness and compliance with firearm regulations. A study on the effectiveness of value-based messages to engage gun owners found that targeted communication strategies can influence support for firearm violence prevention policies. Furthermore, the proliferation of unregistered firearms

remains a significant concern in the Philippines, with reports highlighting the association between loose firearms and gun-related crimes (Quitoriano, 2024).

In addition, a study by Olson and Kenney (2014), titled "Social Media Use by Police Agencies: A Case Study of Local Law Enforcement," examines how social media has become an effective tool for law enforcement agencies to communicate with the public. It found that police departments that used social media effectively were able to raise awareness about legal requirements, such as firearm registration, and build trust within the community. This supports using social media to remind the public to renew firearm licenses and secure weapons.

Table 5

Subtheme 3.1: Utilize of Digital Platform for Awareness Campaign

DATA SOURCE	EVIDENCE
Interview	P1 " We are strict about it because the PNP is the holder of the license, so we are implementing it properly”
	P2 " We filed a search warrant”
	P3 " Uncooperating People”
	P4 " Were using Search warrant”
	P5 " The challenges is the information campaign”
	P6 " We need the item itself, that's what we usually do when the owner is dead or has been sold”
	P7 " We often go there when the owner is dead or the gun has been sold.”
	P8 " We have in the search warrant process”
	P9 " When search warrant is applied"
	P10 “Nothing has happened”
Observation	During the interview, the PNP in Amadeo, Cavite, emphasized their dedication to enforcing gun laws, particularly through strict firearm licensing and search warrants to track illegal firearms. However, they face challenges such as non-cooperative gun owners, deceased owners, and firearms being sold without proper documentation. Despite these obstacles, they believe search

warrants remain among their most effective tools. Their biggest concern is the lack of public awareness about firearm regulations. To address this, they see online media as a key solution to educating more people and ensuring better law compliance.

Data/Documentation *Exhibit G* exhibits the PNP in Amadeo, Cavite is working hard to enforce firearm laws and uses search warrants to find illegal guns. *Exhibit H* is an awareness or public information poster from the PNP Amadeo, reminding gun owners about the importance of renewing firearm licenses under RA 10591. It serves as an official public advisory to inform and warn citizens about the penalties for non-renewal of expired firearm licenses.

Subtheme 3.2: Following orders

This sub-theme illustrates that to enhance the implementation of RA 10591 and solve firing-related problems better in Amadeo, Cavite, reminding the public regularly via social media of the need to renew firearm licenses and secure guns would be helpful. Oplan Katok would be more effective by conducting more house visits to remind owners who may be forgetting. Conducting more community seminars to inform people about the law and the penalty would also be useful. Establishing more trust between the police and the community is important because this will lead to cooperation. Keeping everyone informed with the latest updates will ensure no one gets left behind. Through awareness and participation, the police and the public can collaborate to minimize firing-related issues.

As stated by the PNP (2015), Oplan Katok operates as "physical verification" and keeping track of registered firearms by visiting homes at known addresses provided by licensed gun owners or holders. It seeks to stop or deal with the spread of unaccounted-for firearms and guarantees that the licensed gun owners dwell at the addresses listed in the Firearms and Explosives Office's (FEO) records. At least 40 "Oplan katok" operations, house visits, or gun registration verifications must be carried out daily by police stations. Utilizing social media platforms to regularly remind the public about the importance of renewing firearm licenses and securing firearms can effectively reach a broad audience.

Table 6

Subtheme 3.2: Following orders

DATA SOURCE	EVIDENCE
Interview	<p>P1 "We check homes with licensed guns to verify licenses are valid. If expired, we will hold the gun until renewal."</p> <p>P2 "If a gun is unregistered, we conduct a background check, file a search warrant, and perform searches, particularly during Oplan Sita and Oplan Bakal"</p> <p>P3 "We visit homes of firearm owners with expired licenses, encourage renewal, or apply for a search warrant if they refuse"</p> <p>P4 "We follow protocols to ensure firearms are registered and licensed, filing search warrants for non-renewed or expired guns."</p> <p>P5 "We enforce Republic Act 10591, ensuring all firearms are registered to prevent crime, with ongoing checkpoints and Oplan Katok to encourage renewal."</p> <p>P6 "OPLAN KATOK involves house-to-house visits to owners of expired or unregistered firearms."</p> <p>P7 "OPLAN KATOK is a house-to-house visitation to firearm owners with expired or unregistered firearms"</p> <p>P8 "We conduct discussions in barangays about the legal use of firearms and obtaining licenses"</p> <p>P9 "We rely on the police in barangays to share information about firearm renewals with the community"</p> <p>P10 "We send notices to firearm owners in Amadeo, encouraging them to renew their licenses to avoid penalties or losing their firearms"</p>
Observation	<p>During the interview, the PNP in Amadeo, Cavite, shared how they strictly enforce gun laws by going door-to-door to check firearm licenses. If a license is expired, they temporarily confiscate the firearm until it is renewed. For unlicensed guns, they conduct background checks and use search warrants in operations like Oplan Sita and Oplan Bakal. Through Oplan Katok, they remind</p>

owners to renew their licenses. They also work with barangays and local police and send notices to prevent fines and ensure compliance. Their main goal is to ensure that every firearm is appropriately registered and that every owner follows the law.

Data/Documentation *Exhibit I* is an image of police officers engaging with community members, likely as part of an awareness or enforcement campaign. In both images, the officers are seen handing over or reviewing documents with civilians, indicating efforts to educate, inform, or enforce firearm regulations.

V. DISCUSSION

The findings revealed that the PNP in Amadeo, Cavite, has been actively enforcing firearm laws through initiatives like Oplan Katok, which includes house-to-house checks for illegal firearms and expired licenses, with community engagement programs such as Oplan Bandillo and Police Community Relations to raise awareness. Still, these initiatives' integrity is threatened by a lack of funds, personnel, and public support. The PNP suggests greater funding, more personnel, and cooperation with local government agencies to improve enforcement. Increasing public understanding through regular seminars, home visits, and online platforms like social media might boost compliance and engagement in firearm rules. Raising awareness is still a significant difficulty because many residents are unaware of compliance with the law for firearms. Enhancing these initiatives will contribute to better gun control and increased community trust.

The researchers concluded that the PNP in Amadeo, Cavite, has improved gun control and ensured compliance through various strategies, such as proactive communication, community involvement, financial support, and regular enforcement activities. However, issues like a lack of public awareness, resources, and uncooperative people remain a problem. To make gun laws more effective, increasing public education, strengthening community ties, and using digital platforms for awareness campaigns is essential. These issues require constant awareness campaigns and active engagement in order to improve gun laws.

The recommendations emphasize the importance of public awareness through frequent seminars and social media campaigns to educate the community on the importance of safe gun storage, on-time renewal of firearms permits, and information on the legal consequences of non-compliance with renewal. Police-community relations trust the

importance of trust and cooperation, with the strengthening of communication and transparency programs to enhance the bonds and encourage voluntary compliance with firearms regulations. Reasonable resource allocation to the Philippine National Police (PNP) is also needed to increase public education and enforcement capacity. This includes the provision of sufficient funding, equipment, and personnel to implement the Comprehensive Firearms and Ammunition Regulation Act effectively. Lastly, creating a continuous monitoring and evaluation system is recommended to monitor the performance of gun control policies and community outreach programs to adjust and improve on these measures on a timely basis.

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Enhancing Community Safety through Responsible Dog Ownership

in Barangay Maymanga, Amadeo, Cavite

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. ABSTRACT

The study aimed to understand the attitude of the respondents of Barangay Maymanga in order to determine if there is a significant relationship between the attitude of dog owners towards responsible dog ownership and the various accidents involving stray and owned dogs roaming unleashed in public places affecting community safety in the said locale. The quantitative research method involved residents, local dog owners, and local barangay officials. The researchers used a stratified random sampling method and conducted surveys wherein the number of respondents varied to the population per purok for accurate data analysis. Members of the research formulated a survey questionnaire to collect data focusing on the respondent's demographic profile, responsibility as a dog owner, and assessment of the local government's participation in regulating dog ownership in the community. The researcher's investigation of the phenomenon revealed that the attitude of the majority of respondents was not intentionally neglectful to their dogs. However, there is an evident lack of sufficient knowledge and capability to sustain the actual responsibilities of a dog owner based on RA9482 "Anti-Rabies Act of 2007" and dealing accordingly to the behavior and breed of their respective dogs.

Keywords: *attitude, dog owners, responsible dog ownership, community safety*

II. INTRODUCTION

The study investigated the phenomenon with the various accidents involving free-roaming dogs, such as dog assaults, dog bites, and vehicular accidents faced by the community members of Barangay Maymanga. It explored the attitude of community members towards responsible dog ownership, which must be promoted in the said locale. Thus, the researchers emphasize the urgent need to address and suggest solutions for the problem in the local community.

According to the World Health Organization (WHO), as of June 2024, rabies is a serious public health problem in over one hundred and fifty (150) countries in Asia and Africa. It is a virus attacking the central nervous system with clinical symptoms of hyperactivity, hydrophobia (fear of water), aerophobia (fear of fresh air), hallucinations, and lack of coordination. Upon manifesting all the stated symptoms, death will occur within a few days because of cardio-respiratory arrest. Rabies cause tens of thousands of deaths annually worldwide, and dog bites cause ninety-nine percent (99%) of human rabies cases.

The University of the Philippines Los Baños (2022) emphasized the role of responsible pet ownership in promoting community safety. The study found that responsible pet care, including regular veterinary visits, adherence to local regulations, and proper training, reduce the risk of incidents like dog bites and stray animals. The authors advocate for educational programs to encourage responsible pet ownership, suggesting that such

initiatives can contribute to safer and more cohesive communities. The research highlights the importance of public awareness in ensuring responsible pet ownership for overall community well-being.

Moreover, responsible ownership's significance extends beyond individual actions, exerting a tangible impact on the formulation and implementation of community policies. Through constructive dialogue and collaboration between residents, barangay officials, and relevant stakeholders, responsible ownership catalyzes the development of targeted policies that address prevalent safety concerns, enhance emergency preparedness, and promote sustainable urban growth.

According to Westgarth and Christley (2019) the feelings of responsibility were rooted in the valued unconditional and reciprocal love that owners believed underpinned their human-dog bond. Through a comprehensive understanding of the effectiveness of responsible ownership, this study endeavors to inform evidence-based strategies and interventions that empower communities to thrive amidst the evolving challenges of urban living, thereby laying the groundwork for a more secure future for the residents of Amadeo, Cavite.

According to the World Organization for Animal Health (WOAH) (2022), responsible ownership is defined as "the situation whereby a person accepts and commits to perform various duties in accordance with the legislation in place and focused on the satisfaction of the behavioral, environmental, and physical needs of a dog and to the prevention of risks (aggression, disease transmission, or injuries) that the dog may pose to the community, other animals, or the environment."

Results show good knowledge, moderate attitude, and good practices, yet highlight the need for increased information campaigns. The study assesses residents' knowledge, attitudes, and practices on rabies, the Anti-Rabies Act, and responsible pet ownership in Pampanga, Philippines (Bundalian et al., 2020).

According to the study by Cherian et al. (2020). Responsible pet owners can reduce the risk of transmission of zoonotic diseases. In our study, only 13.1% of the respondents had registered their pet dogs with the municipality. Information regarding the importance of registration should be made known to all pet owners to facilitate better surveillance by public health agencies for the prevention and control of zoonotic diseases.

Garcia et al. (2021) conducted a study titled "The Role of Responsible Pet Ownership in Enhancing Community Safety," which examines how responsible pet ownership contributes to community safety. The study emphasizes that proper pet care, including regular

veterinary visits, adherence to local regulations, and practical training, significantly reduces incidents such as dog bites and stray animals, enhancing public safety. The authors advocate for community education programs to promote responsible pet ownership practices, suggesting that such initiatives can lead to safer and more harmonious communities. This research underscores the importance of responsible pet ownership in fostering community safety and highlights the need for public awareness and education to achieve these goals.

Anti-Rabies Act of 2007 Republic Act no. 9482 addresses the control, prevention, and eventual elimination of human and animal rabies. A National Rabies Prevention and Control Program will be established, with the following functions: mass vaccination of dogs; the creation of a central database system for registered and vaccinated dogs; the impoundment, field control, and disposition of unregistered and unvaccinated dogs; and the promotion of information and education campaigns on rabies prevention and control. The Act also addresses the following issues: the responsibility of pet owners, government agencies, and local government units; dog population management; and punishments.

According to the Republic Act 9482, An act providing for the control and elimination of human and animal rabies under its rule 1, Implementing Rules and Regulations or (IRR) are issued and promulgated under Section 12 of Republic Act 9482. These rules are promulgated to prescribe the procedures and guidelines for implementing the Anti-Rabies Act of 2007 to facilitate compliance and achieve the objectives thereof.

In this article, all Pet Owners shall be required to have their Dog regularly vaccinated against rabies, maintain a registration card containing all vaccinations conducted on their Dog for accurate record purposes, and Submit their Dogs for mandatory registration. These requirements are standards to meet the qualifications of being a responsible owner. In addition, under section 4 of the National Rabies Prevention and Control Program. It is hereby mandated that a National Rabies Prevention and Control Program be implemented by a multi-agency/multi-sectoral committee chaired by the Bureau of Animal Industry of the Department of Agriculture. The program shall be a multi-agency effort in controlling and eliminating rabies in the country. Among its component activities include: (1) mass vaccination of Dogs; (2) establishment of a central database system for registered and vaccinated Dogs; (3) impounding field control and disposition of unregistered, Stray and unvaccinated Dogs; (4) conduct of information and education campaign on the prevention and control of rabies; (5) provision on pre-exposure treatment to high-risk personnel and Post Exposure Treatment to animal bite victims; (6) provision of free routine immunization or

Pre-exposure Prophylaxis (P. E.P) of schoolchildren aged five to fourteen in areas where there is high incidence of rabies as well as the (7) encouragement of the practice of responsible pet ownership. The program shall be implemented by the Department of Agriculture (DA), Department of Health (DOH), Department of Interior and Local government (DILG) and Department of Education (DepEd) as well as Local Government units (LGUs) with the assistance of the Department of Environment and Natural Resources Units (LGUs) with the assistance of the Department of Environment and Natural Resources (DENR), Non-Government Organizations (NGOs) and People's Organization (Pos).

The general objective of this study is to evaluate the effectiveness of responsible ownership for the researchers to provide recommendations for community policy improvement and identify challenges in implementing and enforcing city ordinances in Brgy. Maymanga, Amadeo, Cavite. The researchers aim to help the distressed parts of Amadeo, currently experiencing an unassertive population of stray dogs, to prevent accidents, to give aid to the dog owners and local government officials in some ways to prevent accidents, and to enhance the ordinance in the selected barangay.

III. METHODS

The study was conducted in Barangay Maymangga, Amadeo, Cavite. The researchers chose the above-stated location due to the sense of urgency regarding the problem that has been made known to them coming from some of the residents in the said barangay. Upon arriving at the Maymanga Barangay Hall, the researchers were privileged to interview a Barangay Councilor who gave them the information that the area is a place for intentionally abandoning dogs, and the majority of the barangay residents dog owners are neglectful of their dogs despite the local government's verbal warnings. The barangay official acknowledged the need for assistance in developing community policies and implementing rules regarding animal welfare and responsible dog ownership.

The researchers used a quantitative-descriptive research design; this study seeks to determine if there is a significant relationship between responsible dog ownership and the problem with accidents involving stray and owned dogs and propose an action plan in order for them to develop a community policy.

The sampling technique that was used is stratified random sampling, wherein this is a method of sampling that can be partitioned into subpopulations. In this study, the total population of Barangay Maymanga is 400 participants.

Data was gathered in the research locale through survey distributions, with consultations from an assigned statistician and thesis adviser for data analysis and interpretation.

The study's respondents came from Barangay Maymanga, Amadeo, and Cavite residents. Specifically, the researchers targeted Local Government Unit Officials, resident dog owners, and victims of animal-related injuries and vehicular accidents.

IV. RESULT

1. What is the demographic profile of the respondents, in terms of;

Table 1

The Profile of The Respondents

	Profile	Frequency (N=400)	Percentages
Gender	Male	189	47.3%
	Female	211	52.8%
Age	18 – 30	163	40.8%
	31 – 45	125	31.3%
	46 – 60	95	23.8%
	Above 60 years old	17	4.3%
Role	Pet Owner	262	65.5%
	Community	133	33.3%
	Local Authority	5	1.3%
Pet Vaccination	Every 6 months	91	22.8%
	Every 12 months	120	30%
	Every 18 Months	43	10.8%
	No Data	146	36.5

Table 1 is the profile of the respondents. Frequency counts and percentages were utilized to determine the profile distribution of the respondents. The data revealed that majority of the respondents are female (211 or 52.8%), within the age bracket of 18 – 30 years old (163 or 40.8%) and 31 – 45 years old (125 or 31.3%), mostly are pet owner (262 or 65.5%), and with regards to vaccination of their pets mostly have no data (146 or 36.5%) and some are every 12 months (120 or 30%).

Table 2

The extent of implementation of responsible dog ownership practices among the residents of Barangay Maymangga in terms of Responsible Dog Ownership

Indicator	Mean	SD	VI	Ranking
I provide my dog with proper grooming, adequate food, and clean shelter. <i>(Binibigyan ko ang aking aso ng sapat na pagkain, malinis na tirahan, at tamang pangangalaga.)</i>	2.72	1.328	HE	1
I report the incident to authorities within 24 hours if my dog has bitten someone. <i>(Agad kong ire-rereport sa mga awtoridad kung nakagat ang aking aso ng tao.)</i>	2.69	1.341	HE	2
I maintain Control over my dog in public places. <i>(Hindi ko pinapayagan lumabas ang aking aso nang walang kontrol sa mga pampublikong lugar.)</i>	2.63	1.320	HE	3
I ensure my dog is registered with the appropriate authorities. <i>(Narehistro ang aking aso sa mga kinauukulang awtoridad.)</i>	2.53	1.358	HE	4
I regularly vaccinate my dogs against rabies. <i>(Regular kong binabakunahan ang aking aso laban sa rabies.)</i>	2.46	1.313	LE	5
Mean implementation of responsible dog ownership	2.60	1.247	HE	

Table 2 presents the implementation of responsible dog ownership practices, showing an overall mean of 2.60, considered a High Extent. This means that, on average, respondents follow responsible dog ownership behaviors to a reasonably high level. The scores reflect various behaviors related to the care and management of dogs, providing a clear picture of the areas in which owners excel and those in which improvements may be needed.

Table 3

The extent of implementation of responsible dog ownership practices among the residents of Barangay Maymangga in terms of Community Safety Program

Indicator	Mean	SD	VI	Ranking
The enforcement of the ordinance in promoting responsible dog ownership in Barangay Maymangga is	2.30	1.248	LE	1

evident. <i>(Nakikita ang pagpapatupad ng ordinansa para sa mabuting pag-aalaga ng aso sa aming barangay.)</i>				
The ordinance for reducing dog-related nuisances or conflicts within the community is implemented <i>(Naipatatupad ang ordinansa para bawasan ang mga problema dulot ng mga aso.)</i>	2.21	1.237	LE	2
The enforcement of the ordinance to improve residents safety and well being in Barangay Maymangga is implemented <i>(Pinatatupad ang ordinansa para mapabuti ang kaligtasan at kapakanan ng mga residente.)</i>	2.21	1.259	LE	3
The Penalties and enforcement mechanisms in the ordinance to deter irresponsible dog ownership are implemented: <i>(May mga parusa at mekanismo para pigilan ang hindi mabuting pag-aalaga ng aso.)</i>	2.21	1.270	LE	4
The Public dissemination of the ordinances related to responsible dog ownership and public safety. <i>(Napapasa ang impormasyon tungkol sa mga ordinansa para sa kaligtasan ng publiko.)</i>	2.21	1.299	LE	5
Mean Implementation of community safety program	2.227	1.201	LE	

Table 3, presented on the implementation of the community safety program in Barangay Maymangga, indicates that overall, the enforcement of ordinances related to responsible dog ownership and public safety is perceived to be implemented to a Low Extent (LE), with a mean score of 2.227.

Table 4

Pearson correlation between responsible dog ownership and implementation of community safety programs

	Community safety practices	Decision
Responsible Dog ownership	Pearson Correlation .536	Positive moderate

Significance	.000	Reject Null
N	400	

Legend P-value < .05 reject null hypothesis

Pearson correlation was utilized to determine the relationship between the extent of implementation of responsible dog ownership and the extent of implementation of community safety programs. The data revealed a positive moderate relationship [(df 398), $r = .536$, ($p = .000$)]. Since the p-value is less than .05, the null hypothesis was rejected.

Table 5

Independent sample t-test in the extent of implementation of community safety programs among male and female respondents

Independent Sample t-test	Mean	SD	t	Df	Significance	Decision
Male	2.231	1.166	.075	398	.941	Accept Null
Female	2.222	1.235				

Legend: p-value < .05 reject null hypothesis.

An independent sample t-test was conducted to determine the extent of implementation of community safety programs among male and female respondents. The data shows no significant difference between the extent of implementation of community safety programs among male ($M=2.231$; $SD=1.166$) and female ($M=2.222$; $SD=1.235$) respondents.

Table 5.1

Anova table for the extent of implementation of community safety programs when group according to their roles and age

Category	Sum of squares	Df	F	Significance	Decision	
Role	Between Groups	118.902	3	34.322	.000	Reject Null
	Within Groups	457.286	396			
	Total	576.188	399			

Age	Between Groups	.142	3	.033	.992	Accept Null
	Within Groups	576.046	396			
	Total	576.188	399			

Legend P-value < .05 reject the null hypothesis

One way ANOVA was conducted was to determine the difference in the extent of implementation of community safety programs when grouped according to their roles and age. The data shows a significant difference in the extent of implementation of community safety programs when groups according to their roles [$f(3, 396) = 34.322, p = .000$]. In contrast, age [$f(3, 396) = .033, p = .992$], shows no significant difference.

Table 5.2

Post hoc test: Sheffe

Category	N	Mean	SD	Post hoc test Sheffe	Sig.	Decision	
Role	Pet Owner	262	2.613	1.133	Pet Owner -Community	.000	Reject Null
	Community	133	1.461	.946	Pet Owner – Local Authority	.989	Accept Null
	Local Authority	5	2.400	.848	Community – Local Authority	.525	Accept Null

A post hoc test was conducted to determine which roles differ significantly. The data revealed that the extent of implementation of community safety programs among pet owners and the community has a significant difference, with a p-value of .000, which is less than .05; therefore, the null hypothesis was rejected. The pet owner has a mean score of 2.613, verbally interpreted as a high extent of implementation. In contrast, the community has a mean score of 1.461, verbally interpreted as a very low extent of implementation of community safety programs.

V. DISCUSSION

The study assesses the demographic profile of respondents, the extent of implementation of responsible dog ownership practices, and the effectiveness of community safety programs in Barangay Maymangga, Amadeo, Cavite. Most respondents are female (52.8%), aged 18–30 years (40.8%), and pet owners (65.5%). A notable proportion (36.5%) lack data on pet vaccination, indicating an area for improvement in responsible pet ownership.

Overall, the extent of responsible dog ownership practices is high (mean: 2.60), with respondents prioritizing basic pet care, reporting dog bite incidents, and ensuring control of dogs in public places. However, rabies vaccination is less emphasized. In contrast, community safety programs are perceived as poorly implemented, with a mean of 2.227, reflecting weak enforcement of ordinances related to public safety and responsible dog ownership.

The study found a moderate positive correlation ($r=0.536$, $p<0.05$) between responsible dog ownership and community safety programs, indicating that improved dog ownership practices could enhance safety outcomes. Differences were noted based on respondents' roles, with pet owners engaging more in safety initiatives than non-owners. However, no significant differences were observed based on gender or age. The low implementation levels of community safety programs, particularly in reducing dog-related nuisances, public dissemination of ordinances, and enforcement of penalties, highlight areas needing attention. These findings emphasize the importance of educational campaigns and more vigorous ordinance enforcement to foster a shared responsibility for community safety and responsible pet ownership.

ACTION PLAN

Responsible Dog Ownership Program

Objective: Enhance community safety through strengthened responsible dog ownership practices.

Key Action	Target Audience	Timeline	Lead Implementer	Expected Outcome
Rabies Vaccination Drives	Dog Owners	Quarterly	Barangay Health Office	Increased Vaccination Rates

Simplified Dog Registration	Dog Owners	Monthly	Barangay Office	Increased number of registered dogs
Awareness Campaigns	Entire Community	Ongoing	Barangay Officials & NGO's	Greater public understanding of safety ordinances
CNR Program	Stray Population	Semi-Annual	Animal Welfare & NGO's	Controlled Stray Dog Population
Ordinance Enforcement Monitoring	Barangay Officials	Continuous	Barangay Task Force	Improved compliance and reduced violations

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Ethical Considerations and Attitudes: College Students Online Data Sharing On Social Media

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. ABSTRACT

The proliferation of social media platforms has raised significant concerns about privacy, consent, and the ethical implications of data sharing. Among these platforms' most active users, college students often share personal information yet may not fully comprehend the risks involved. This study investigates college students' ethical considerations and attitudes regarding online data-sharing practices on social media. This research employs a quantitative approach using a descriptive survey, collecting data from Olivarez College Tagaytay college students using a stratified random sampling procedure. The study found that while students are highly aware of privacy concerns, their attitudes toward sharing personal data appear influenced by shared educational and cultural experiences rather than individual demographic characteristics such as age, gender, or academic program. Despite recognizing the ethical challenges of data sharing, students often report limited engagement with privacy settings and lack a clear understanding of their data rights. These findings suggest a need for more robust educational initiatives that promote digital literacy and

responsible data-sharing practices. Social media platforms can foster a more secure and ethically conscious online environment by empowering students with knowledge about their privacy rights and the ethical implications of their online actions. The study underscores the importance of developing effective strategies to educate and inform users about their rights and responsibilities in the digital landscape.

Keywords: Data privacy, Ethical considerations, Social media, College students, Online data-sharing practices

II. INTRODUCTION

In today's age, the extensive dissemination of information has extensively modified social media interaction ways. The online practices involving data sharing in social media expose the wide activities of engagement and interaction with those information sources. This expands the dimensions of online data collaboration, where data sharing and personal privacy come into play; thus, essential for assessing benefits and risks and developing strategies for responsible and secure online behavior (Purnama, 2023). College students' attitudes towards data privacy will determine future internet policies and practices. Understanding the variables influencing student awareness and expectations of privacy may involve examining the most influential sources of information affecting these aspects, including current events, scandals, and revelations that impact their ethical considerations toward confidentiality.

The international outlook of the report by Statistics in 2021 is that 78% of internet users worldwide are concerned about how social media are using their data. The International Data Corporation (IDC) said that data breaches worldwide increased by 63% in 2020 from the previous year. It, therefore, is essential to delve into the implications of such data breaches on college students' views on data-sharing

practices on social media. According to a local perspective by the Digital Insights Group on the usage of social media by locals in 2020, it was evident that 85% of college students within the region share personal information via social media platforms. The Philippines consistently ranks among the top countries globally for social media usage. As of 2021, around 80 million Filipinos were active social media users, representing 75% of the country's population. This is why the researchers are captivated by studying the perception and attitudes of people towards netiquette on posting on social media. (We Are Social's Digital 2021)

The processing of personal data, including the necessity of obtaining consent, the rights of data subjects to access and correct their information, the security measures required to protect personal data, and the accountability of data controllers in transferring data to third parties, are all comprehensively addressed across Sections 11, 16, 20, and 21 under the RA 10173 or the Data Privacy Act of 2012. This study explores how ethical issues influence peoples' attitudes toward sharing details on social media. In particular, it examines the link between ethical factors such as privacy and consent with the attitudes held by the respondents, which is what they think and feel about sharing their data online. By engaging in this study, researchers can better understand how ethical concerns shape online data-sharing behavior.

III. METHODS

This research utilized a quantitative methodology. A descriptive survey questionnaire was employed to collect and analyze numerical data to explore and discuss college students' ethical considerations and attitudes regarding online data-sharing practices on social media. Quantitative research methods focused on gathering and analyzing structured data that could be quantified. The primary aim was to create accurate and dependable measurements that facilitated statistical analysis. Descriptive analysis is a type of data research that assists in detailing, demonstrating, or effectively summarizing data points, allowing for the identification of patterns that meet all conditions of the data. This approach involved recognizing patterns and relationships by employing recent and historical data.

The study was conducted at Olivarez College Tagaytay. The campus was chosen as the location for research because it was more convenient for the researcher and the study's focus. Respondents answered the questionnaire at their convenience. The respondents were 400 college students enrolled at Olivarez College Tagaytay.

The researchers examined and integrated their responses using content analysis. A stratified random sampling procedure was used to select the respondents for the study. Stratified random sampling, or proportional and quota random sampling, is a probability sampling technique in which the total population is divided into homogeneous groups to complete the sampling process. The researchers had control over the subgroups to ensure they were represented in the sampling.

Questionnaires served as the tool for the research. A questionnaire was developed using Google Forms, consisting of questions designed to elicit responses from participants or information sources to collect data. The research team utilized a Google Forms questionnaire aligned with the study's title and potential intervention programs. The team distributed the link to the questionnaire within the campus of Olivarez College Tagaytay.

The researchers created a self-made questionnaire to understand college students' ethical considerations and attitudes in online data sharing on social media. They provided a link to the online Google Form questionnaire to all students at Olivarez College Tagaytay to ensure that the respondents comprehended the survey. The researchers clearly explained the instructions before the respondents completed the questionnaire. The purpose of the study was to evaluate the attitudes and opinions of students regarding online data-sharing practices on social media. Before initiating the survey, the researchers secured written approval from the Olivarez College Tagaytay Office of the Dean. The researchers safeguarded the personal information of the respondents throughout the entire process.

III. RESULT

SOP #1. Demographic Profile

1.1 Name

1.2 Age

1.3 Gender

1.4 Year level

1.5 Course

Table 1

The Demographic Profile of the Respondents in terms of Age.

Age	Frequency	Percentage
18 - 22	359	90.7%
23 - 26	37	9.3%
Total	396	100.0

In terms of age, table 1 shows 90.7% of respondents are aged 18 to 22, while only 9.3% are aged 23 to 26. This means most college students are within the typical age range for undergraduates, suggesting many enter college right after high school, influenced by social expectations and the importance of a degree for job opportunities. This age group is often called "digital natives" because they grew up with technology and social media. According to Statista (2021), many young internet users are worried about how their personal information is used, with 78% showing concerns about data privacy worldwide. This study supports that idea, showing that younger people are more aware of ethical issues and that their frequent use of online platforms influences their opinions.

Table 2

The Demographic Profile of the Respondents in terms of Gender.

Gender	Frequency	Percentage
Male	175	44.2%
Female	193	48.7%
Prefer not to say	28	7.1%
Total	396	100.0

The table 2 shows that 48.7% of respondents are female, 44.2% are male, and 7.1% chose not to disclose their gender. This indicates a slight female majority, which aligns with trends in higher education where female enrollment is increasing. Factors such as changing societal attitudes towards education and targeted recruitment efforts by schools may contribute to this trend. Sergeeva (2023) says that social media is very important for communication, and how people use it can differ between men and

women. For example, women tend to focus more on building communities and relationships. This can affect how they think about sharing personal information online. Understanding these differences is important for knowing how privacy issues and ethical behaviors vary between groups.

Table 3

The Demographic Profile of the Respondents in terms of Year Level.

Year level	Frequency	Percentage
1 st Year	131	33.1%
2 nd Year	72	18.2%
3 rd Year	108	27.3%
4 th Year	85	21.5%
Total	396	100.0

Regarding year levels, 33.1% of respondents are first-year students, 27.3% in their third year, 21.5% in their fourth year, and 18.2% in their second year. First-year students are the most engaged in the survey, likely eager to share their experiences adjusting to college life. In contrast, upperclassmen may be less involved due to their focus on academics and other responsibilities (Stamenkovic & Zivadinovic, 2022).

Table 4

The Demographic Profile of the Respondents in terms of Course.

Course	Frequency	Percentage
BS Criminology	143	36.1%
BSN	99	25%
BSHM	34	8.6%

BSIT	31	7.8%
BSTM	28	7.1%
BSBA	25	6.3%
BEED	14	3.5%
BS Accountancy	13	3.3%
BSAIS	9	2.3%
Total	396	100.0

The most popular course among students was BS Criminology at 36.1%, followed by BS Nursing at 25%. Other courses included BS Hospitality Management (BSHM) at 8.6%, BS Information Technology (BSIT) at 7.8%, BS Tourism Management (BSTM) at 7.1%, BS Business Administration (BSBA) at 6.3%, Bachelor of Elementary Education (BEED) at 3.5%, Bachelor of Science in Accountancy (BSA) at 3.3%, and Bachelor of Science in Accounting Information Systems (BSAIS) at 2.3%.

This shows that BS Criminology and BS Nursing are the most preferred programs, likely due to local job market demands and the popularity of these fields at Olivarez College Tagaytay. Many students may choose these courses for job security and career opportunities, especially in healthcare and law enforcement. The Digital Insights Group (2020) found that college students' social media usage is widespread and influenced by their academic disciplines. Criminology students, for instance, may exhibit greater awareness of privacy and data security issues due to the ethical and legal emphasis in their curriculum.

SOP #2. How do the college students assess their ethical considerations and attitudes towards online data sharing of social media, in terms of:

- 2.1 Processing of personal data
- 2.2 Rights of the data subject
- 2.3 Security of personal information
- 2.4 Accountability of transfer

Table 5

Students Assessment of Their Ethical Considerations and Attitudes

2.1. Processing of Personal Data	WM	SD	VI
Social Media platforms clearly explain how college students process user's personal data.	3.39	.524	VHLA
The way social media platforms process personal data is efficient and beneficial to users.	3.20	.598	HLA

Table 5 shows college students' ethical views about sharing personal data on social media, particularly how personal data is processed. Students also rated the clarity of social media platforms' policies on personal data use, such as how data is collected, stored, and processed, with a score of 3.39. This suggests they feel confident about the transparency of these platforms regarding their data practices. Many students believe that social media platforms effectively communicate how they handle user data. According to Consulting Check (2022), data from social media is essential for understanding user behavior and improving services, allowing for personalized advertisements based on user profiles. For Rijitha R. (2021), the need for such policies to be more accessible and comprehensible would improve the users' comfort and confidence on these platforms. Clear communication plays a vital role in users' trust in social media, which allows engaging them in informed ways. Students have a favorable view of data processing techniques, scoring an average of 3.20. This shows they see the benefits of data-driven services. Supporting Ross (2024), managing data well helps provide relevant content and services. However, if privacy rules are broken, it can damage trust and lead to misuse of user information without compromising their data. It reflects a balanced understanding of how processed data translates to actual on-platform benefits. The numbers might be amiable, though they highlight unresolved issues such as the breach of privacy and data misuse. Aldboush and Ferdous (2023) highlight the concern of increasing students' trust regarding the techniques by being more transparent in their communications and advancing their ethical data practices.

Table 5.1*Rights of data subject*

2.2 Rights of data subject	WM	SD	VI
Social media platforms provide clear information about users right to control their personal data.	3.26	.640	VHLA

Users feel confident in exercising their rights regarding their 3.16 .841 HLA
personal data on social media

Table 5.1 shows college students' understanding of their rights regarding personal data on social media. Students rated how social media informs them about their rights to manage personal data, scoring 3.26. This suggests that social media platforms are transparent about users' information control rights. Users should be aware of what data is collected, how it is used, and what options they have regarding it. This indicates that most of the information provided is clear and comprehensible. The Electronic Privacy Information Center (2023) notes that social media companies need to be accountable for the data they hold. As people learn more about privacy policies, they become more comfortable asserting their rights, which helps them feel in control of their data. However, the rating points to possible scenarios, as not all students may straightforwardly have access to this information. Users rated their readiness to assert their data rights with an average score of 3.16. This suggests that most users feel confident and capable of managing their data on social media, although some still face challenges. Confidence means users believe they have the knowledge and resources to protect their rights. While some feel secure in doing so, many do not. Ohara (2023) notes that social media is essential for improving educational communication, but issues like misinformation and bullying must be addressed. Increasing users' confidence through education and support can enhance the effectiveness of social media for learning.

Table 5.2

Security of Personal Information

2.3 Security of Personal Information	WM	SD	VI
Social media use is adequate encryption to protect personal information from unauthorized access.	3.28	.596	VHLA
Users feel confident that their personal information is securely stored by social media platforms.	3.18	.689	HLA

Table 5.2 shows how college students view ethical issues and online sharing on social media, particularly about personal information security. Students agree that social media sites use strong encryption methods to prevent unauthorized access to personal data, scoring 3.28 with a standard deviation of 0.596. Rachamalla (2021) notes that social media security focuses on checking active data to defend against threats like phishing and malware. Even

with issues like impersonation and fraud, encryption and privacy policies make users feel their data is safe on these platforms. Social media security, for example, Singh (2023), focuses on protecting sensitive information by tracking real-time data to mitigate attacks like phishing or malware. As the issue of impersonation and fraud, among others, exists, however, the willingness to use these platforms is improved by encryption and privacy policies that assure users that their information will not be misused. The lowest score was 3.18, which means that while students feel somewhat safe about how their data is handled, there are still some worries. McKay (2023) suggests that users should regularly check and update their privacy settings on social media. Simply trusting the platforms isn't enough to eliminate risks. It's a good idea to keep accounts private, limit location sharing, manage app permissions, and use two-step verification to better protect personal information from being hacked or misused. Furthermore, students must take precautions to minimize their online exposure rather than cover all risks, as it would be foolish to anticipate more.

Table 5.3*Accountability of Transfer*

2.4 Accountability of Transfer	WM	SD	VI
Social media platforms ensure that third parties follow strict guidelines when handling transferred personal data.	3.33	.511	VHLA
Social media platforms are accountable when transferring users personal data to third parties.	3.24	.589	HLA

Table 5.3 shows how college students view ethical issues and online sharing on social media, particularly about transfer accountability. The highest-rated aspect is the expectation that social media platforms require third parties to follow strict rules when handling user data, which received a score of 3.33. This shows that students believe it is essential for platforms to ensure that third parties manage data responsibly to prevent breaches and misuse. Martin (2021) noted that users expect social media companies to have strong oversight to protect their data, and the score of 3.33 reflects these expectations. This implies that students want social media platforms to be more involved in shielding their information from third parties. To avoid abuse of their data, students contend that the platforms have control mechanisms to manage the data-sharing process. This, however, demonstrates the students' notion that the platforms need to be more responsible in how they facilitate or serve their users and their

data. Overture to Online Learning Guidelines, Certified by the National Privacy Commission (2020), emphasizes the issuance of clear guidelines as a proper approach to data protection.

On the other hand, the lowest score of 3.24, accompanied by a standard deviation of 0.589 (HLA), relates to the accountability of social media companies when sharing users' personal information with third parties. This indicates that students doubt the efficacy of these accountability mechanisms. Although there is a generally favorable attitude toward ethical considerations, the findings highlighted a lower rating (3.24) concerning the responsibility of platforms in data sharing with external entities. This skepticism is reflected in academic discourse, where researchers claim that users often feel powerless against unclear data practices (Zuboff, 2019). Tufekci (2020) indicates that while users seek accountability, they usually perceive social media firms as lacking a true dedication to safeguarding user data.

Legend:

3.26 – 4.00 = Very High Level of
Assessment

2.51 – 3.25 = High Level of
Assessment

1.76 – 2.50 = Low Level of Assessment

1.00 – 1.75 = Very Low Level of
Assessment

SOP #3. Is there a significant difference in the ethical consideration and attitudes of college students in data sharing practices on social media when grouped to their profile?

Table 6

Pearson correlation table

		Ethical Consideration and attitude of college students in data sharing practices on social media	Decision
YEAR	Pearson's		
LEVEL:	r	0.046	

Ethical Consideration and attitude of college students in data sharing practices on social media			Decision
	df	394	
	p-value	0.358	Accept Null
COURSE:	Pearson's r	-0.089	
	df	394	
	p-value	0.077	Accept Null
AGE:	Pearson's r	0.014	
	df	394	
	p-value	0.775	Accept Null
GENDER:	Pearson's r	-0.071	
	df	394	
	p-value	0.159	Accept Null

Legend: P-Value < .05 Reject Null Hypothesis

Pearson-r was utilized to determine the correlation between college students' ethical considerations and attitudes in data-sharing practices on social media and their profiles. The data revealed [$r(394) = 0.046$, $p\text{-value} = 0.358$, $r(394) = 0.089$, $p\text{-value} = 0.077$, $r(394) = 0.014$, $p\text{-value} = 0.775$, $r(394) = 0.071$, $p\text{-value} = 0.159$]. All the calculated p-values are greater than 0.05, so we accept the null hypothesis. This means no significant relationship exists between ethical considerations and college students' attitudes toward data sharing on social media. According to Nadine Barrett-Maitland and Jenice Lynch (2020), the rise of social media has brought many privacy problems and ethical questions, but these issues don't usually change how people behave. For instance, even though college students see ethical

problems with data sharing, many do not change how they share information. This shows a gap between understanding ethics and acting on it.

This might mean that their ethical views and attitudes about sharing data on social media are similar, regardless of their profiles. The results suggest that students' ethical views and attitudes about data sharing do not change based on their year in school, area of study, age, or gender. This could indicate that college students have a consistent view of ethical considerations, which is likely influenced by broader cultural or educational factors rather than their backgrounds.

SOP #4. Based on the findings of the study, what action plan can enhance the ethical considerations and attitudes towards online data sharing on social media?

Table 7

Objective: this study will investigate college student attitude, behaviors, and ethical consideration regarding online data sharing on social media platforms.

Key Actions	Target Audience	Timeline	Lead Implementer	Expected Outcome
Conduct literature review	Research team	Week 1-6	Principal Investigator (PI)	Identification of research gaps selection of theoretical framework
Develop research framework and define variables	Research team	Week 5-6	PI,Co investigator	Refined Conceptual frame study design
Design Research instrument (survey, interview , FG)	College team	Week 7-9	Research Assistant	Valid and reliable data collection tools
Formulate research questions and hypothesis	Academic advisors, commitee	Week 7-9	PI	Clear testable hypothesis and research objectives
Develop sampling strategy	College student population	Week 8-9	Statistician/Meth odologies	Stratified random sampling plan
Submit and obtain IRB approval	IRB Commitee	Weeks 9-12	PI	Ethical approval for humans subjects research
Pilot test survey and	Small student sample	Week 13	Research Assistant	Refine tools based on pilot feedback

interview instruments				
Recruit Participants	College Students	Week14-15	Research Team	Representative sample for data collection
Administer surveys	College students	Week16-20	Research Team	Quantitative datasets reflecting students attitudes and behavior
Conduct Interviews	Selected Students	Week16-20	Research assistant	In depth insight on ethical consideration and decision making
Facilitate focus groups	Student Volunteer	Week18-20	Co investigator	Groups perspective and discussion based insight
Analyzed Quantative data	Survey Respondent	Week21-24	Statistician/Resea rcher	Statistical trends, correlations, and predictive factor
Analyzed Qualitative data	Interviews and focus group data	Week 21-24	Qualitative analyst	Thematic Understanding of ethical view and behavioral drivers
Integrate finding from mixed method	Research Team	Week 25	PI	Holistic view combining qualitative and quantitative insight
Interpret result and relate to framework	Academic Community	Week 26-27	PI, Advisor	Theoretical and practical implications articulated
Draft final research	Stakeholders, institution	Week 27-28	PI	Comprehensive report summarizing all findings and recommendation
Prepare presentation materials	Academic Peers ,conferences	Week 28	Research Assistant	Materials for dissemination and knowledge sharing

V. DISCUSSION

The ethical considerations and attitudes of college students regarding online data sharing on social media were thoroughly investigated through a descriptive quantitative approach. The findings revealed that students generally demonstrate high awareness and responsibility concerning their personal data privacy. Across indicators such as processing of personal data, data subject rights, data security, and third-party accountability, the results consistently showed a strong sense of concern and ethical consciousness among the respondents. Significant insights showed that while students actively use social media, they are equally aware of the potential risks involved. The respondents expressed concern over

how their information may be used or misused, particularly by third-party entities, with many indicating a preference for platforms that demonstrate transparency in data handling and privacy policies. These results align with existing literature emphasizing the importance of digital literacy and ethical online behavior in an increasing data breaches and misuse era. The study could have benefited from including qualitative tools such as focus group discussions or semi-structured interviews. Such methods could provide more profound insights into the psychological and emotional drivers behind students' behaviors and ethical perspectives. While effective for quantifying attitudes, the current survey-based approach lacked the depth needed to thoroughly explore complex motivations and concerns. Future researchers are advised to integrate both quantitative and qualitative methodologies to achieve a more comprehensive understanding of this evolving issue. From the attitudes and patterns identified, several implications may be drawn. Schools and administrators must continue emphasizing digital ethics education, focusing on privacy, consent, and responsible online behavior. Social media platforms should also refine their privacy settings and ensure that users are adequately informed about how their data is collected, used, and potentially shared. Lastly, policies must be strengthened to ensure that online environments remain safe and respectful, especially for students still forming their digital identities.

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**Level of Awareness on the Safe Spaces Act of 2018 as
A Basis for Policy Development of Olivarez
College Tagaytay: An Assessment**

Rensy B. Aala, Allysa Fiona R. Campani, John Patrick M. Perladu, John Melwin L. Pesigan, Karlos Rafael B. Vergara

. **ABSTRACT**

Not everyone knows about the Safe Spaces Act of 2018, also known as the “Bawal Bastos” Law, which was created to protect people from gender-based sexual harassment in public spaces, schools, workplaces, and even online. This study focused on how aware the students, teachers, and non-teaching staff at Olivarez College Tagaytay are about this law. Since schools are where people spend a lot of time learning and growing, they should also be places where everyone feels safe and respected. However, the level of awareness about the Safe Spaces Act can vary, especially between schools in urban areas and those in smaller, more rural communities. To determine how informed our school community is, we used a quantitative descriptive research design and applied stratified random sampling to include students, teaching, and non-teaching personnel. The goal was to collect honest data using surveys and then analyze the numbers to see the bigger picture. One of the reasons for doing this study is that many people still don’t know their rights when it comes to harassment, especially in educational settings. The results showed something positive: a high level of awareness among students and staff at Olivarez College Tagaytay. But even with these promising results, there’s still room to grow. The study suggests that schools should continue spreading information and create more ways for everyone to understand and apply the law daily. To build a truly respectful and safe campus, the school can launch more educational campaigns and programs that make the Safe Spaces Act easier to understand and apply, especially for students.

Keywords: Awareness, Safe Space, Students, Staff, Policy Development

II. INTRODUCTION

The Safe Spaces Act, formally known as Republic Act No. 11313, was enacted in the Philippines in 2018 to address and mitigate gender-based sexual harassment across various environments, including streets, public spaces, online platforms, workplaces, and educational institutions. The law represents a significant legislative effort to foster safer and more inclusive public and private spaces, reflecting a growing recognition of the pervasive nature of sexual harassment and its detrimental impacts on individuals and communities.

Educational institutions are particularly significant as they serve as primary socialization and personal development environments. The Safe Spaces Act mandates that schools and universities adopt comprehensive policies to prevent and address instances of harassment, thereby ensuring a secure and respectful atmosphere conducive to learning and personal growth. This legislative requirement aligns with global standards that advocate for safe, educational environments free from discrimination and violence.

The level of awareness among students and staff at Olivarez College Tagaytay is particularly critical for several reasons. Firstly, educational institutions are microcosms of society where norms and behaviors are cultivated. Hence, understanding and implementing the Safe Spaces Act within the college can contribute to broader societal change. Secondly, students' well-being and academic success are closely linked to their sense of safety and security within the campus. Studies have shown that harassment and a lack of safe spaces can severely impact students' mental health, academic performance, and overall campus experience.

Moreover, the role of staff in creating and maintaining a safe environment cannot be overstated. Educators and administrative personnel are often the first point of contact for students facing harassment and, thus, must be well-informed about the law and the appropriate measures to take. An informed and proactive staff can effectively support students and contribute to a culture of respect and safety. Recent international studies underscore the importance of continuous training and education for staff to ensure they remain vigilant and responsive to the needs of students.

III. METHODS

This study utilized a quantitative descriptive research design. A quantitative study uses objective measurements and computational techniques to gather and analyze numerical data from groups of people to derive conclusive results (Kumar, 2021). The data were gathered through a survey questionnaire using a five-point Likert scale. A Likert scale is a close-ended, forced-choice scale used to measure responses with extremes at the ends of the scale, fewer extreme choices towards the middle, and a neutral choice at the middle if there were any (Vinney, 2019).

The population for this study included all College students and staff at Olivarez College Tagaytay. This encompassed a diverse group of individuals within the institution, including those in various academic programs and those in different roles. This was used to quantify data to be subjected to statistical analysis. A four-point Likert scale was usually used

to reduce ambiguity and improve response quality since it was easier for the respondents to understand (Devlin, Dong, and Brown, 2003). This study used the four-point Likert scale to measure levels of agreement, which were translated to 1 (Very Low Level), 2 (Low Level), 3 (High Level), and 4 (Very High Level).

This standardized survey questionnaire was utilized to measure awareness of the Safe Spaces Act of 2018 among students and staff at Olivarez College Tagaytay. The survey was validated and peer-reviewed to ensure reliability and accuracy. The secondary data used in Chapter 2 were gathered from credible peer-assessed and research-based publications. The information presented in the review of related literature was collected from foreign and local articles, news columns, editorials, and educational blogs authored by individuals knowledgeable about the research variables. Furthermore, the information in the review of related studies was derived from theses published by academic scholars from foreign and local academic institutions. The researchers used search engines such as Google, Safari, Education Resources Information Center, JSTOR, Research Gate, E-Journals, Library Genesis, and Google Scholar to collect relevant literature and studies.

IV. RESULT

Table 1

The profile of the respondents.

Profile		Frequency (n = 535)	Percentage
Gender	Male	271	50.5%
	Female	266	49.5%
Age	18 – 30 Years old	425	79.1%
	31 – 40 Years old	50	9.3%
	41 – 50 Years old	35	6.5%
	51 Years old and above	27	5%
Role	Student	379	70.6%
	Non-Teaching	83	15.5%
	Teaching	75	14%%
Year of stay in Olivarez	Below 3 years	182	33.9%
	3 – 5 years	272	50.7%
	6 – 7 years	43	8%

8 – 10 years	40	7.4%
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Table 1 is the profile of the respondents. Frequency counts and percentages were utilized to determine the profile distribution of the respondents. The data revealed an almost equal distribution among males and females with a frequency of 271 and 266 or 50.5% and 49.5% of the respondents. While the majority are 18 – 30 years old with a frequency of 425 or 79.1%, most are students 379 or 706%, and within 3 -5 years of stay in the school, 272 or 50.7%. This may imply that the profile shows a respondent pool overwhelmed by more youthful people (basically students), adjusted gender representation, and a vast extent of organization roles and lengths of remain. These characteristics propose that the study's discoveries are likely to reflect the points of view of an overwhelmingly youthful, student-heavy statistic with restricted long-term regulation encounters. If the ponder points to get its behaviors or attitudes inside the institution, these variables will significantly translate what comes about and make focused suggestions. According to (Statistics Canada, 2021), The frequency (f) of a particular value is the number of times the value occurs in the data. The distribution of a variable is the pattern of frequencies, meaning the set of all possible values and the frequencies associated with these values.

Table 2

The current level of awareness of the Safe Spaces Act of 2018 acts among students and staff of Olivarez College Tagaytay

Gender-Based Sexual Harassment at Olivarez College Tagaytay	Mea n	SD	VI
1. Olivarez College Tagaytay has implemented awareness programs aimed at educating students and staff about gender-based sexual harassment. These initiatives help create a more informed community that understands the importance of addressing and preventing harassment. <i>(Ang Olivarez College Tagaytay ay nagpatupad ng mga programa para sa kamalayan na naglalayong turuan ang mga estudyante at kawani tungkol sa gender-based na sekswal na harassment. Ang mga inisyatibong ito ay tumutulong sa paglikha ng mas maalam na komunidad na nauunawaan ang kahalagahan ng pagtugon at pagpigil sa harassment.)</i>	3.45	.72	VH

0. The college has established various confidential reporting channels, including hotlines and online platforms, enabling students to report incidents safely. This fosters an environment where victims feel supported in coming forward. <i>(Ang kolehiyo ay nagtatag ng iba't ibang mga kumpidensyal na paraan ng pag-uulat, kabilang ang mga hotline at mga online na plataporma, na nagpapahintulot sa mga estudyante na ligtas na iulat ang mga insidente. Ito ay nagtataguyod ng isang kapaligiran kung saan nararamdaman ng mga biktima na sila ay suportado sa paglapit at pag-uulat.)</i>	3.31	.73 9	HL
0. Mandatory training for faculty and staff on gender sensitivity and harassment prevention is crucial at Olivarez College. Such training enhances understanding and equips staff to respond effectively to incidents. <i>(Ang kinakailangan na pag sasanay para sa mga guro at kawani sa gender sensitivity at pagpigil sa harassment ay mahalaga sa Olivarez College. Ang ganitong pagsasanay ay nagpapalawak ng kaalaman at nagbibigay-kakayahan sa mga kawani na tumugon nang epektibo sa mga insidente.)</i>	3.36	.70 7	VH
0. Clear policies at the institution define harassment, outline procedures, and detail consequences. This transparency contributes to a safer educational environment for all. <i>(Ang malinaw na mga polisiya sa institusyon ay nagbibigay-depinisyon sa harassment, naglalahad ng mga pamamaraan, at nagdedetalye ng mga parusa. Ang transparency na ito ay nag-aambag sa mas ligtas na kapaligirang pang-edukasyon para sa lahat.)</i>	3.41	.71 7	VH
0. Olivarez College collaborates with local advocacy groups, fostering a community approach that enhances prevention efforts and provides additional support for victims. <i>(Nakikipagtulungan ang Olivarez College sa mga lokal na grupo ng adbokasiya, na nagtataguyod ng isang komunidad na lapit na nagpapalakas sa mga pagsisikap sa pagpigil at nagbibigay ng karagdagang suporta para sa mga biktima.)</i>	3.40	.69 2	VH
<i>The level of awareness on gender base sexual harassment</i>	3.38	.61 3	VHL A

Table 2 shows the respondent's assessment of the current awareness of the Safe Space Act of 2018 among students and staff of Olivarez College Tagaytay in terms of Gender-Based

Sexual Harassment at Olivarez College Tagaytay. Based on the scores obtained, an overall mean of 3.38 or a standard deviation of .613 is verbally interpreted as a Very High Level of Awareness. The respondents' assessment indicates a very high level of awareness regarding the Safe Spaces Act of 2018, particularly in addressing gender-based sexual harassment at Olivarez College Tagaytay. This shows that the school has successfully developed educational and awareness-raising initiatives, creating a culture where employees and students understand their legal rights and obligations. The high degree of awareness demonstrates a strong institutional commitment to fostering a welcoming and safe atmosphere where harassment is more likely to be recognized, reported, and dealt with. Because of this awareness, people are more comfortable speaking out against unacceptable behavior, which also improves law enforcement to discourage and punish harassment. It also highlights how important it is to continue providing these programs with regular training, development, and education to guarantee that knowledge is converted into ongoing actions and long-term institutional improvements. According to Goruk et al. (2024), raising awareness against gender stereotypes is a step in the prevention of gender-based violence. Overcoming stereotypes is related to increasing knowledge about the topic and raising awareness among students, resulting from several of the research studies analyzed. Research has identified vulnerability to violence in people with low self-esteem and insecurity. Consequently, empowerment should be an important goal of violence prevention programs.

Table 3*The Duties of School Head*

The Duties of School Head				
1.	They must have a campaign about safe space so that they can understand their rights and responsibilities as students and staff of Olivarez College Tagaytay under the law. (Dapat silang magkaroon ng kampanya tungkol sa ligtas na espasyo upang maunawaan nila ang kanilang mga karapatan at	3.4 8	.60 8	V H

responsibilidad bilang mga estudyante at kawani ng Olivarez College Tagaytay sa ilalim ng batas.)				
2.	It is effective if they have a policy development to address issues if someone violates the safe space act like harassment so the school heads can act to create a safer school. (Epektibo kung magkakaroon sila ng pagbuo ng mga polisiya upang tugunan ang mga isyu kapag may lumabag sa Safe Spaces Act, tulad ng harassment, upang makakilos ang pamunuan ng paaralan at makalikha ng mas ligtas na kapaligiran sa paaralan.)	3.5	.63	V
		1	8	H
3.	Training sessions conducted for faculty and school heads to improve the management of harassment incidents, responsiveness and support for the affected students and staff. (Ang mga pagsasanay na isinasagawa para sa mga guro at pamunuan ng paaralan ay makakatulong sa pagpapabuti ng pamamahala sa mga insidente ng harassment, pagpapalakas ng agarang pagtugon, at pagbibigay ng suporta para sa mga apektadong estudyante at kawani.)	3.4	.65	V
		3	1	H
4.	Collaborating with student organizations like the supreme student government and student councils to promote the safe space act in Olivarez College Tagaytay can increase the chance to reduce harassments in the school. (Ang pakikipagtulungan sa mga organisasyong pang-estudyante, tulad ng Supreme Student Government at mga konseho ng mga mag-aaral, upang itaguyod ang Safe Spaces Act sa Olivarez College Tagaytay ay maaaring makapagpataas ng tsansa na mabawasan ang mga kaso ng harassment sa paaralan.)	3.5	.63	V
		7	7	H
5.	The school heads can use tarpaulin with the steps on how to report if there is harassment in the institution so that it is easily accessible and visible to all the students and staff of Olivarez College Tagaytay. (Maaaring gumamit ang mga pinuno ng paaralan ng tarpaulin na naglalaman ng mga hakbang kung paano iulat ang harassment sa institusyon, upang ito ay madaling makita at ma-access ng lahat ng estudyante at kawani ng Olivarez College Tagaytay.)	3.5	.62	V
		3	2	H
Mean		3.5	.53	V
		0	4	H

Table 3 shows the respondent's assessment of the current awareness of the Safe Spaces Act of 2018 among students and staff of Olivarez College Tagaytay in terms of The Duties of the School Head. Based on the scores obtained, an overall mean of 3.50 or a standard deviation of .534 is verbally interpreted as a Very High Level of Awareness. Based

on the scores obtained, an overall mean of 3.50 or a standard deviation of .534 is verbally interpreted as a Very High Level of Awareness. The respondents' assessment illustrates an extremely high level of awareness about the Safe Spaces Act of 2018, particularly in addressing the Commitments of the School Head at Olivarez College Tagaytay. Illustrated by the respondents' scores, it highlights the college's effective communication of organization obligations in maintaining a strategic distance from and addressing harassment. The school head plays an essential part in ensuring the correct usage of the Act, including creating and actualizing anti-harassment approaches, setting up open reporting instruments, and coordinating and preparing programs for staff and students. This awareness ensures that the total campus community gets the techniques to address harassment, developing an environment where students and staff feel supported and secure. With clear specialist obligations, the institution outlines its commitment to keeping up an aware, comprehensive, and capable environment, ensuring that all people are aware of their rights and the exercises they can take in case harassment happens. This level of awareness reflects the proactive efforts made by Olivarez College to facilitate the Safe Spaces Act totally into the institution's culture, eventually strengthening the safety and inclusivity of the campus. Johnson et al. (2022) highlight the importance of continuous training for staff in fostering safe educational environments. Regular training sessions help staff stay updated on safety protocols and effectively address harassment issues. Continuous training is a key component in successfully implementing the Safe Spaces Act.

Table 4

The Routine Inspection and Compliance with RA11313 Safe Spaces Act

The Routine Inspection and Compliance with RA11313 Safe Spaces Act			
1. Regular inspections serve as a deterrent for students who might otherwise neglect their obligations. It also encourages them to implement policies and training programs to create a safer community. (Ang regular na inspeksyon ay nagsisilbing panakot para sa mga estudyanteng maaaring pabayaang ang kanilang mga obligasyon. Ito rin ay humihikayat sa kanila na ipatupad ang mga polisiya at mga programang pagsasanay upang makabuo ng mas ligtas na komunidad.)	3.3	.66	V
	8	2	H
0. Improved reporting mechanisms encourage victims to come forward, leading to a better understanding of the prevalence of harassment and enabling timely intervention. (Ang pinahusay na mga mekanismo sa	3.5	.62	V
	0	6	H

pag-uulat ay naghihikayat sa mga biktima na lumapit, na nagresulta sa mas mahusay na pag-unawa sa paglaganap ng harassment at nagpapahintulot ng napapanahong interbensyon.)

0.	The enforcement of penalties sends a strong message that harassment will not be tolerated and encourages compliance with the Act's provisions. It also provides a sense of justice for victims. (Ang pagpapatupad ng mga parusa ay nagpadala ng isang malakas na mensahe na ang harassment ay hindi kailanman matatanggap at naghihikayat ng pagsunod sa mga probisyon ng Batas. Nagbibigay din ito ng pakiramdam ng katarungan para sa mga biktima.)	3.5	.60	V
		1	8	H
0.	Inconsistency in inspections can undermine the Act's effectiveness and create a perception of leniency. It is crucial to ensure that inspections are conducted regularly and with a consistent approach across all sectors. (Ang kawalang-konsistensya sa mga inspeksyon ay maaaring makapahina sa bisa ng Batas at lumikha ng pananaw ng pagpapabaya. Mahalaga na matiyak na ang mga inspeksyon ay isinasagawa nang regular at may pare-parehong pamamaraan sa lahat ng sektor.)	3.4	.62	V
		8	9	H
0.	Public awareness campaigns are crucial for changing societal attitudes towards harassment. Effective campaigns can empower victims to report incidents, encourage bystander intervention, and create a culture of respect and accountability. (Mahalaga ang mga pampublikong kampanya sa kamalayan para sa pagbabago ng mga saloobin ng lipunan patungkol sa harassment. Ang mga epektibong kampanya ay maaaring magbigay kapangyarihan sa mga biktima na iulat ang mga insidente, hikayatin ang interbensyon ng mga tao, at lumikha ng isang kultura ng paggalang at pananagutan.)	3.5	.61	V
		6	2	H
Mean		3.4	.53	V
		8	2	H

Table 4 shows the respondent's assessment of the current awareness of the Safe Spaces Act of 2018 among students and staff of Olivarez College Tagaytay in terms of The Routine Inspection and Compliance with the RA11313 Safe Spaces Act. Based on the scores obtained, an overall mean of 3.48 or a standard deviation of .532 is verbally interpreted as a Very High Level of Awareness. The high mean shows that time-table assessments, advanced detailing components, authorized disciplines, predictable application of strategies, and open cognizance campaigns are well-implemented and recognized inside the organization. A low standard deviation recommends an agreement and understanding among respondents

concerning the effectiveness of these activities in making a more secure and comprehensive environment. The institution is closely observing the Safe Spaces Act, illustrating its effort to supply a thin and harassment-free environment for students and staff. Prominent affirmation proposes that the highlight of the foundation's endeavors is successful and will propose to continue using these methods, as they will exhaust creating consistency and progress a culture of security and social obligation. According to Ahmad et al. (2019), Effective time management is the main accomplishment of both regular and distance learners. Mismanagement disrupts students' academic progress. Effective time management is crucial for raising student achievement and performance. Time management is a skill that every student needs to be familiar with and proficient in to get better outcomes.

Table 5. Liability of Students

Liability of Students			
1. The Safe Spaces Act of 2018 provides a comprehensive legal framework defining what constitutes sexual harassment in educational institutions, enabling students at Olivarez College Tagaytay to better understand their liabilities. (Ang Safe Spaces Act ng 2018 ay nagbibigay ng isang komprehensibong legal na balangkas na nagdedepina kung ano ang itinuturing na sekswal na harassment sa mga institusyong pang-edukasyon, na nagpapahintulot sa mga estudyante ng Olivarez College Tagaytay na mas maunawaan ang kanilang mga responsibilidad.)	3.5	.59	V
	4	1	H
0. The law encourages institutions to conduct awareness campaigns and seminars to educate students at Olivarez College Tagaytay about their rights and responsibilities. (Hinihikayat ng batas ang mga institusyon na magsagawa ng mga kampanya sa kamalayan at mga seminar upang turuan ang mga estudyante sa Olivarez College Tagaytay tungkol sa kanilang mga karapatan at responsibilidad.)	3.6	.56	V
	2	8	H
0. The Safe Space Act of 2018 establishes procedures for reporting harassment, ensuring that students at Olivarez college Tagaytay know how to seek help and hold perpetrators accountable. (Itinatag ng Safe Spaces Act ng 2018 ang mga pamamaraan para karapa-uulat ng harassment, na tinitiyak na ang mga estudyante sa Olivarez College Tagaytay ay alam kung paano humingi ng tulong at mananagot ang mga salarin.)	3.5	.59	V
	7	5	H

0. The Safe Space Act of 2018 promotes awareness of students’ rights and responsibilities, fostering a culture of respect and safety in educational environments. (Ang Safe Spaces Act ng 2018 ay nagtataguyod ng kamalayan sa mga karapatan at responsibilidad ng mga estudyante, na nagpapalaganap ng isang kultura ng paggalang at kaligtasan sa mga kapaligirang pang-edukasyon.)	3.4	.62	V
	7	0	H
0. The Safe Space Act of 2018 reinforces the rights of students to an education free from harassment, empowering them to advocate for themselves and each other. (Pinatitibay ng Safe Spaces Act ng 2018 ang mga karapatan ng mga estudyante sa isang edukasyon na walang harassment, na nagbibigay-kapangyarihan sa kanila na ipaglaban ang kanilang sarili at ang isa’t isa.)	3.6	.57	V
	2	7	H
Mean	3.5	.51	V
	6	7	H

Table 5 shows the respondents’ assessment of the current level of awareness of the Safe Spaces Act of 2018 among students and staff of Olivarez College Tagaytay in terms of Liability of Students. Based on the scores obtained, an overall mean of 3.56 or a standard deviation of .517 is verbally interpreted as a Very High Level of Awareness. The overall meaning reflects the respondent’s concern concerning the significance of the Safe Spaces Act in characterizing liabilities, advancing awareness, and engaging students. These findings are reliable with the broader objectives of the Act, as well as related writing emphasizing the requirement for a lawful system to cultivate more secure and more comprehensive educational environments. According to Ayish & Deveci (2019) many students readily acknowledge that they are responsible for their own learning and that such responsibility can lead to success in many aspects of their lives. Yet there is a seeming disconnect between what students recognize as important and beneficial and what they practice.

Table 6

Penalty

Penalty

1. Implement strict penalties to reduce instances of harassment and discrimination in Safe Spaces in Olivarez College Tagaytay. (Magpatupad ng mahigpit na mga parusa upang mabawasan ang mga pagkakataon ng harassment at diskriminasyon sa mga Ligtas na Espasyo sa Olivarez College Tagaytay.)	3.5	.61	V
	5	9	H
0. Encourage victims to report incidents, knowing that there is a legal framework supporting their claims and that action will be taken seriously. (Hikayatin ang mga biktima na iulat ang mga insidente, na may kaalaman na mayroong legal na balangkas na sumusuporta sa kanilang mga reklamo at na ang mga aksyon ay seryosong tatratuhin.)	3.6	.58	V
	4	3	H
0. The act promotes accountability among organizations in Olivarez College Tagaytay, ensuring they take necessary measures to maintain safe environments and comply with the law. (Ang batas ay nagtataguyod ng pananagutan sa mga organisasyon sa Olivarez College Tagaytay, na tinitiyak na sila ay kumukuha ng mga kinakailangang hakbang upang mapanatili ang mga ligtas na kapaligiran at sumunod sa batas.)	3.5	.61	V
	3	9	H
0. Support for victims of harassment at Olivarez College Tagaytay as the legal consequences provide validation and acknowledgment of their experiences, empowering them to seek help. (Ang suporta para sa mga biktima ng harassment sa Olivarez College Tagaytay ay nagbibigay ng beripikasyon at pagkilala sa kanilang mga karanasan, na nagpapalakas sa kanila upang humingi ng tulong dahil sa mga legal na konsekwensiya.)	3.5	.59	V
	9	2	H
0. Publicizing the penalties at Olivarez College Tagaytay raises awareness about the importance of safe spaces, encouraging community dialogue and collective responsibility for maintaining these environments. (Ang pagpapalaganap ng mga parusa sa Olivarez College Tagaytay ay nagpapataas ng kamalayan tungkol sa kahalagahan ng mga ligtas na espasyo, na naghihikayat ng diyalogo sa komunidad at sama-samang pananagutan sa pagpapanatili ng mga kapaligirang ito.)	3.5	.60	V
	3	1	H
Mean	3.5	.51	V
	7	8	H

Total	3.50	.476	VH
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Legend:

- 3.26 – 4.00 = Very High Level of Awareness
- 2.51 – 3.25 = High Level of Awareness
- 1.76 – 2.50 = Low Level of Awareness
- 1.00 – 1.75 = Very Low Level of Awareness

Table 6 shows the respondents' assessment of the current awareness of the Safe Spaces Act of 2018 among students and staff of Olivarez College Tagaytay in terms of Penalty. Based on the scores obtained, an overall mean of 3.57 or a standard deviation of .518 is verbally interpreted as a Very High Level of Awareness. The generally Exceptionally High Level of Understanding strongly supports executing and publicizing punishments, empowering announcing, and guaranteeing responsibility. This reflects respondents' belief in the effectiveness of lawful measures to cultivate secure space and decrease harassment. According to Blecker (2019), For millennia, penalties for transgressions have ranged from pure prices to pure punishments based on the intentions, actions, and harm caused. The world of sports similarly enforces commands or rules by imposing various sanctions. In law, ideally, not only does the punishment fit the crime, but the punishment makes the crime.

Table 7

Independent sample t-test for the level of awareness of the Safe Spaces Act of 2018 among male and female respondents.

Independent Sample T-test	Mean	SD	t	df	Significance	Decision
Male	3.479	.523	1.057	535	.291	Accept Null

Legend: p-value < .05 rejects the null hypothesis.

An independent sample t-test was conducted to determine the level of awareness of the Safe Spaces Act of 2018 among students and staff at Olivarez College Tagaytay. The data shows no significant difference between the level of awareness of the Safe Spaces Act 2018 among male (M=3.479; SD=.523) and female (M=3.522; SD=.42) respondents. This may imply that regardless of gender, their awareness of the Safe Spaces Act of 2018 is the same. This finding suggests that awareness of the Safe Spaces Act of 2018 is uniform over gender among the respondents. It recommends that gender does not play an important role in impacting the level of awareness about the Act inside the studied population. This

consistency may reflect the viability of awareness campaigns or rise to the presentation of data on the Safe Spaces Act, in any case of gender. According to Kent State University (2019) The Independent Samples t Test compares the means of two independent groups to determine whether there is statistical evidence that the associated population means are significantly different. The Independent Samples T Test is a parametric test.

Table 8

Anova table for the level of awareness of the Safe Spaces Act of 2018 among students and staff at Olivarez College Tagaytay when grouped according to their role. According to Kent State University (2019) One-Way ANOVA ("analysis of variance") compares the means of two or more independent groups to determine whether there is statistical evidence that the associated population means are significantly different. One-way ANOVA is a parametric test.

Category		Sum of squares	Df	f	Significance	Decision
Role	Between Groups	3.260	2	7.379	.001	Reject Null
	Within Groups	117.956	534			
	Total	121.216	536			
Years of Stay	Between Groups	3.360	3	5.065	.002	Reject Null
	Within Groups	117.856	533			
	Total	121.216	536			
Age	Between Groups	2.536	3	3.796	.010	Reject Null
	Within Groups	118.680	533			

Total	121.216	536
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Table 8.1

Post hoc test sheffe method

Category	N	Mean	SD	Post hoc test Sheffe	Sig.	Decision	
Role	Student	379	3.451	.540	Student - Teaching	.003	Reject Null
	Non-Teaching	83	3.586	.259	Student-Non teaching	.062	Accept Null
	Teaching	75	3.653	.171	Teaching – Non teaching	.672	Accept Null
Years of Stay	Below 3 years	182	3.503	.478			
	3 – 5 years	272	3.445	.519	3-5 years and 6-7 years	.022	Reject Null
	6 – 7 years	43	3.685	.250			
	8 – 10 years	40	3.664	.116			
Age	18 – 30 Years old	425	3.466	.522	18-30 years old and 31-40 years old	.039	Reject Null
	31 – 40 Years old	50	3.672	.109			
	41 – 50 Years old	35	3.613	.232			
	51 Years old and above	27	3.571	.127			

Legend: P-value < .05 Reject Null Hypothesis

A one-way ANOVA was conducted to determine the level of awareness of the Safe Space Act of 2018 among students and staff at Olivarez College Tagaytay when grouped according to their profiles. The data shows role [$F(2, 534) = 7.379, p = .001$], years of the stay [$F(3, 533) = 5.065, p=.002$], age [$F(3, 533) = 3.796, p=.010$], since the p-value is less than .05, therefore, the null hypothesis is rejected, there a significant difference in the level of awareness of the safe spaces act of 2018 among students and staff of Olivarez College Tagaytay when group according to their profile. To further determine which among the group of respondents has a significant difference, a post hoc test shuffle method was conducted, and the data shows that among the respondents, it was the student and teaching personnel, with 3-5 years and 6-7 years of stay in Olivarez, and age 18-30 and 31-40 years old has a significant difference. According to Cortez

(2021), The authors found that the effect of stereotype congruence was larger in the male voice. There are not many men who write or report on fashion. More women are currently seen taking on traditional masculine roles than in the past. Hence, there was a weaker effect of stereotype congruence in the female voice Grant et al., (2020).

V. DISCUSSION

The research study titled "Level of Awareness on the Safe Spaces Act of 2018 as a Basis for Policy Development of Olivarez College Tagaytay: An Assessment". The research study applied a quantitative and descriptive method to investigate this issue. Using this method, the researchers could collect and review statistics that allowed them to describe students' and staff members' awareness at that time and discover any connections between it and demographic features.

All participants in the study were recruited from students and staff at the Olivarez College Tagaytay. In total, the school had 2,109 students and 264 members of staff. To make results reflective, age, gender, and staff roles were considered in the random selection of students, and the study included all staff by applying total population sampling.

Data were gathered through a standardized survey questionnaire designed using a four-point Likert scale, which measured levels of awareness from "Disagree (D)" to "Strongly Agree (SA)." The survey was created using Google Forms and distributed electronically. Before the primary survey was administered, the instrument underwent expert validation and a pilot test to ensure accuracy and reliability.

Before beginning the data gathering, all participants were asked for their permission, and all information was treated as confidential. The survey recorded details about each respondent and whether they were aware of the main points of the Safe Spaces Act. The information obtained was analyzed statistically by determining averages and standard deviations and examining differences between groups with t-tests or ANOVA.

In essence, the research used a step-by-step and ethical methodology to evaluate how aware the students and staff are of the Safe Spaces Act. The research aimed to support the creation of better policies and awareness activities in the institution.

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From Psychophysiology to Justice: A Case Study on Overcoming Obstacles in Polygraph Testing at Regional Forensic Unit IV-A

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I. ABSTRACT

Polygraph testing, a method rooted in psychophysiology, has long been controversial in forensic science. This study investigates polygraph examiners' challenges at Regional Forensic Unit IV-A, focusing on methodological obstacles affecting test accuracy. The researchers used a qualitative case study research design and purposive sampling involving interviews with examiners to gather varied perspectives on their experiences. Structured interviews with open-ended questions were used for data collection to explore the complexities of polygraph testing. Moreover, the data was analyzed through thematic analysis to reveal key issues such as environmental distractions impacting performance, the need for effective rapport-building, and ethical dilemmas from ambiguous results. These challenges highlight the importance of improved communication and preparation before testing and ethical guidelines for navigating conflicting pressures. Recommendations include enhancing examiners training programs, refining pre-test procedures, and integrating advanced technologies to address limitations. Training should focus on developing rapport with subjects to reduce anxiety and improve response accuracy. Standardizing pre-test protocols can ensure examiners are well-informed about case specifics, which is crucial for accurate assessments. Addressing inherent limitations like equipment constraints and environmental factors requires investments in updated technology and methodologies. The researchers recommended, and based on the results, that researchers gather was to enhancing the training programs, creating a collaboration between the investigators and examiners to minimize inconsistent, delay and increase the reliability of polygraph results, having advanced rapport-building techniques to build trust and cooperation with the subjects lastly, to maintain the integrity of polygraph examination.

Keywords: psychophysiology, justice, Polygraph examination, Polygraph examiner, Ethical Issues in Polygraphy.

II. INTRODUCTION

Lie detector tests (polygraph tests) have been controversial regarding their admissibility of evidence in legal proceedings. Polygraphs are also known as deception detection tests or lie detection tests, in which measuring and recording specific physiological indicators, such as blood pressure, pulse, respiration, and skin conductivity, is used to ask a subject a series of questions. Disc deceptive answers are believed to generate physiological responses that can be detected (Dan, 2024). It is a procedure that detects several physiological indicators, including pulse, blood pressure, respiration, and skin conductivity, which indicate if a person is being untruthful when asked a series of questions. A polygraph test, also called a lie detector test, measures the body's physical response to questions to determine whether or not a person is being honest. The examiner or forensic psychophysicologist uses an instrument to assess a person using three indicators of autonomic arousal, including a person's heart rate and blood pressure, respiration, and skin reactions (Civit et al., 2021).

Addressing the inherent limitations of polygraph testing, such as equipment constraints and environmental factors, requires investments in updated technology and methodologies. This research aims to bolster the reliability of polygraph testing within forensic contexts by providing actionable strategies that can enhance examiner performance and test outcomes. This research aims to assess and establish the individual's experiences and perceptions regarding the obstacles they encounter in polygraph testing. Chekunov (2022) states that polygraph examiners face multifaceted challenges, encompassing organizational, legal, and applied aspects. Rajan (2019) states that polygraph tests' accuracy and ethical issues are subject to debate. According to Sadekov (2023), the complexity of the profession requires in-depth knowledge in various fields, necessitating effective pedagogical technologies in training future examiners. Despite its widespread use in forensic investigations, polygraph testing faces significant challenges related to its scientific reliability, acceptance, legal admissibility, and influence of polygraph results in legal decision-making.

Furthermore, the ambiguity of physiological responses measured by polygraphs-often influenced by factors such as nervousness or individual differences limits their validity in detecting deception.

The National Bureau of Investigation (NBI) first introduced polygraph testing in the Philippines in the 1970s-1970s; the use of polygraph tests grew in the following years, making its way, particularly into police agencies. Despite their initial use without a firm legal footing, polygraph evidence has come to be defined by jurisprudence regarding the limits and conditions under which such a piece of evidence might be deemed a Lie Detector Test (2024). Despite the existence of an anti-torture law, polygraph examiners in the Philippines face several difficulties, including political, legal, and security-related barriers to obtaining justice for torture survivors. According to Henderon (2022), a polygraph test has admissibility in court in some countries only. Some of them include Belgium, India, Japan, and the US. However, just because it is admissible does not necessarily mean it can always be used as evidence. In most instances, lie detector tests are subject to restrictions.

This study delves into the nuanced landscape confronting polygraph examiners within the Regional Forensic Unit IV-A, aiming to elucidate the intricate web of daily obstacles. Through a comprehensive case study approach, this research endeavors to uncover the multifaceted nature of these challenges, shedding light on the complexities inherent in the profession and offering insights that may pave the way for enhanced training, support, and efficacy in polygraph examination.

III. METHODS

This study employs a qualitative case study approach to explore the challenges faced by polygraph examiners at the Regional Forensic Unit IV-A. A case study design is chosen because it allows an in-depth understanding of a particular group's experiences, perceptions, and challenges within their real-life context. The researchers used a purposive sampling technique to deliberately select participants with specific characteristics and skills relevant to the research objectives. This approach will be employed since it collects information from research participants. In addition, this approach will be used to determine and compile data depending on the replies from the participants.

Additionally, primary and secondary data sources were used in this study; primary information was gleaned from the interview, observations, and outside expert advice; thus, secondary data sources come from the document analysis. The participants were chosen based on their expertise, roles, and familiarity with the challenges and operational practices of polygraph testing. The participants are assigned to the Regional Forensic Unit IV-A at Camp BGen Vicente Lim, Canlubang City, Laguna. This study can gather comprehensive

insights into polygraph examiners' challenges and the broader context in which these challenges arise.

However, the researchers first created a questionnaire validated by an expert who tried to check those questionnaires before using them for an interview. Before distribution, the researcher submitted their research ethics clearance containing the informed consent form, a copy of their research proposal, a letter to the Institution's Head, and a research questionnaire. Upon approval of their letters, the researchers sent a letter to the Regional Forensic Unit IV-A asking permission to conduct an in-person interview. They participated in an interview using a set of guide questions to obtain information. They were assisted by a voice or video recorder to record the interview and subsequently transcribe and interpret the data gathered. The researchers then conducted a critical analysis and evaluation of the responses of the participants in the interview.

Moreover, the researchers used thematic analysis. Herzog (2019) defines thematic analysis as a qualitative data analysis approach in which a data set (a transcript from an in-depth interview or focus group, for example) is read, and patterns in meaning are identified across that data to arrive at themes. Thematic analysis is an active process of reflexivity, where a researcher's subjective experience in data making is central to producing meaning. Yen's qualitative case study design approach was used to interpret this study, and data analysis usually follows these steps. The first is to code qualitative data from interviews, observations, and document analysis. Once the data has been coded and analyzed thematically to find the recurring themes or patterns, it organizes coded data into meaningful clusters representing common issues, challenges, or experiences related to the research questions. The researchers are looking for similarities, differences, and relationships in the coded data and patterns to identify overarching patterns that can help researchers understand the challenges polygraph examiners at Regional Forensic Unit IV-A experience. In Yen's approach data analysis also focuses on understanding the context within which the challenges occur. Researchers examine the organizational, legal, and operational factors influencing polygraph examiner experiences and how these factors affect the challenges polygraph examiners experience. Finally, data analysis is to interpret the results by the research objectives and synthesis of the results to draw meaningful conclusions regarding the challenges polygraph examiners face. In this case, we connect themes and patterns to the issues so that we have a complete understanding of the issues being presented.

IV. RESULTS

PROBLEM NO.1

What are some of the most common challenges you face when conducting a polygraph examination on a subject?

Theme 1: Challenges in Polygraph Examinations

This theme demonstrates From Psychophysiology to Justice: A Case Study on Overcoming Obstacles in Polygraph Testing at Regional Forensic Unit IV-A. (1) Obstacles in Data Collection – Difficulties obtaining accurate data from subjects. (2) Pretest Interview Techniques – Methods for effective communication and trust-building. (3) Inter-Agency Coordination for Complex Cases (4) Upgrading Resources and Equipment.

Subtheme 1.1: Explore difficulties in obtaining accurate data from subjects

Obstacles to data collection in polygraph examinations are many. Incomplete or inaccurate case facts submitted by investigators, lack of consent, uncooperative behavior, and physiological factors, such as anxiety or nervousness, are the factors. In return, these complexities make polygraph tests unreliable. For example, false positives from nervousness complicate interpreting results (Asonov, 2023). Further, testing in an environment with distractions, such as noise or inadequate seating, worsens inconsistencies. In field cases, documentation showed that incomplete investigator reports, delayed test preparation, and poor pretest planning led to inconclusive findings. These barriers will be overcome with better communication between investigators, better preparation, and careful handling of subject anxiety with rapport-building techniques (Brimbal et al., 2020).

Table 1

Subtheme 1.1: Explore difficulties in obtaining accurate data from subjects

DATA SOURCE	EVIDENCE
Interview	P1: “No accurate facts submitted by investigator on case.” P2: “We cannot examine a polygraph subject without consent.” P3: “Uncooperative subject.” P5: “Subject nervousness or anxiety.”

P6: “Inconsistent response.”

Observation

A common problem is subject anxiety or nervousness that produces physiological responses that interfere with the results. Environmental distractions caused additional noise that reduced test reliability.

Data/Documentation

Uncooperative subjects or incomplete investigator reports created delays or inconclusive results due to test preparation problems. Common barriers to successful testing were noted as inadequate pretest preparations.

PROBLEM NO. 2

What strategies do you employ to establish rapport and trust with a subject during the pretest interview?

Theme 2: Building Rapport in Pretest Interviews

Polygraph examinations rely on the pretest interview, which is the basis for the accuracy of test results. This creates trust and rapport with the subject, increasing the subject's cooperation and decreasing the amount of response manipulation. Methods that can improve the examiner's capacity to obtain sincere answers, including showing esteem, making a friendly situation, and attending to the subject's issues, can help cultivate the following examination.

Subtheme 2.1: Investigate methods for effective communication and trust-building.

Accuracy and credibility of polygraph examinations depend upon compelling pretest interviews. Explanations of the process, respect for the subject, and care for subjects' worries encourage a safe work environment. The observations also showed that examiners who create an environment that is comfortable and fosters empathy elicited more honest responses from subjects. The techniques were portrayed in training materials to reduce subject defensiveness. There is corroborative research that shows that active listening and physical adjustments to the test environment all contribute to building rapport and enhancing trust and examination reliability (Dando et al., 2022). Such practices not only backyard genuine responses however help keep such activity at bay by sending a supportive and professional setting.

Table 2

Subtheme 2.1: Investigate methods for effective communication and trust-building.

DATA SOURCE	EVIDENCE
Interview	P1: “Study the case before showing up.” P3: “Ensure that the process is well explained.” P4: “Ensure demonstrating respect through verbal or through actions.” P5: “Create a comfortable environment.”
Observation	Subjects were more likely to build trust with examiners who used active listening and empathy during pretest interviews. Cooperation improved with adjustments to physical settings (quiet, comfortable rooms).
Data/Documentation	The emphasis in training materials was to explain procedures in a clear manner. According to examiner logs, successful examinations were sometimes associated with pretest interviews that dealt with subject concerns.

PROBLEM NO. 3

What are some of the ethical dilemmas you’ve faced when interpreting polygraph results, especially in cases where the results are ambiguous or inclusive?

Theme 3: Ethical Dilemmas in Polygraph Interpretation

The interpretation of polygraph results is of special importance concerning ethics when the data is ambiguous or inconclusive. The need for them to be objective is apparent, but not when it means aligning findings with investigative expectations. Ethics is challenging in the context of bias, confidentiality breach, or an irresistible pull to destroy results to conform to a desired narrative. These dilemmas stress the importance and need for adherence to professional ethics and transparency across the whole process.

Subtheme 3.1: Analyze challenges in making ethical decisions based on unclear results.

Ethically, when interpreting ambiguous or inconclusive polygraph results, polygraph examiners face many situations. This clashes with the examiner’s duty to maintain objectivity, sometimes at the cost of coming to findings aligned with investigative expectations. Physiological readings can be ambiguous, distracting, or even placement bias on the examiner's part. The fact that observers found examiners committed to transparency and accuracy when dealing with such dilemmas and seeking advice from peers indicated that such guidance is in the interests of peer review. Confidential protocols lack adherence, like before sharing results, as seen by ethical alarms. In such high-stakes scenarios, literature highlights the importance of ethics of impartiality and rigorous cross-validation (Ni et al., 2023). Such challenges can be mitigated by ethical training programs, which would reinforce the importance of professionalism and transparency.

Table 3

Subtheme 3.1: Analyze challenges in making ethical decisions based on unclear results.

DATA SOURCE	EVIDENCE
Interview	<p>P1: “Ensure that the question is in dialect and understandable.”</p> <p>P3: “If there is a temptation to become biased and when it is aligned to the results of the findings.”</p> <p>P5: “If the results didn’t follow the strict confidentiality guidelines and the result was shared, it can be a problem.”</p> <p>P6: “Ambiguous results may create dilemmas on providing accurate results.”</p>
Observation	<p>In particular, examiners were reluctant to interpret ambiguous results when under investigative pressure. A frequent coping strategy was collaboration with colleagues in order to crosscheck results.</p>
Data/Documentation	<p>In confidential reports, ethical lapses such as premature sharing of ambiguous results were brought to light. But official guidelines of impartiality and confidentiality were breached at times in high pressure situations, according to documented cases.</p>

PROBLEM NO. 4

In your experience, what are some of the most challenging types of cases or subjects to examine (e.g., sex offenders, high-stakes cases, juveniles)?

Theme 4: Complex Cases in Polygraph Testing

Specific cases and subjects present certain more difficult tasks; polygraphers must have specialized skills and techniques on a case-by-case basis. For instance, juveniles, those with mental health conditions, or those who know a great deal are all examples of individuals who make this process more difficult to understand.

Subtheme 4.1: Examine issues related to testing juveniles and individuals with mental health concerns.

Testing vulnerable populations such as juveniles, sex offenders, and mentally ill individuals poses special challenges that require special expertise. These groups may be very anxious or defensive, and the examination process may be complicated. The sex offenders may not respond consistently because they deny doing what they have done, or educated people may want to disprove the validity of the polygraph. Observations suggested that creative strategies such as extended pretest interviews or specific question phrasing were needed to handle these populations creatively. However, documentation showed that cases involving juveniles had higher rates of inconclusive results because these teens could not fully grasp the implications of the test. Examiners, it appears from research, should employ tailored approaches, including simplified language and increased preparation, to reach these subjects' unique psychological and emotional needs (Read, 2022). Together, this highlights the need for continued training for examiners to navigate the varied populations.

Table 4

Subtheme 4.1: Examine issues related to testing juveniles and individuals with mental health concerns.

DATA SOURCE	EVIDENCE
Interview	<p>P1: “Subjects who are psychologists didn’t believe that polygraph examination can detect deception.”</p> <p>P5: “Sex offenders are involved in highly distressing details, so they are not comfortable or become defensive.”</p> <p>P6: “Sex offenders cause inconsistent responses as they repeatedly deny their actions.”</p>
Observation	<p>A major problem was people who were sex offenders or knew about polygraph methods. Defensive or manipulative behaviors were observed by observers, for which creative strategies were needed to maintain test integrity.</p>
Data/Documentation	<p>In reporting on juvenile and mentally unfit subjects, case reports noted very high rates of inconclusive results because either the subject was too young or too mentally unfit to understand or to try to manipulate responses. Such instances were commonly recorded as causing a great deal of examiner frustration.</p>

PROBLEM NO. 5

What are some of the most common reasons subjects fail polygraph examinations (e.g., deceptions)?

Theme 5: Reasons for Polygraph Failures

Failures of polygraph examinations are due to various factors, including subject deceptive behaviors and poorly fashioned questions. Subjects use physical or mental countermeasures to manipulate responses or vague or unclear questions can cause misunderstanding. To verify and certify the validity and reliability of polygraph testing, it is fundamental to identify and resolve these common pitfalls.

Subtheme 5.1: Identify common deceptive strategies employed by subjects.

Subjects that yield polygraph failures may also perform deceptive behavior methods such as countermeasures to distort physiological responses or report inconsistent answers.

These failures also occur because poorly designed or unclear questions can confuse the subject and result in unreliable results. Deceptive behaviors, such as controlled breathing or deliberate distraction techniques, were observed to require examiners to retest or use additional methods to validate the findings. Cited failures due to poor question clarity or inadequate pretest preparation, documentation also frequently cited failures. Evidence supports the development of robust training for examiners to learn how to identify and counteract deception and derive strategies for improving question formulation (Zloteanu & Vuorre, 2024). Addressing these common pitfalls with better examiner expertise and better communication can appreciably increase test reliability.

Table 5

Subtheme 5.1: Identify common deceptive strategies employed by subjects.

DATA SOURCE	EVIDENCE
Interview	P3: “Sometimes the subjects try to manipulate their responses, it can result in inaccurate responses.” P4: “Maybe when the subject is not cooperative.” P6: “Sometimes poor question clarity can lead to misunderstanding, which may affect why the examination fails.”
Observation	The observation was made of deception such as controlling breathing and inconsistent answers. False positives also resulted from nervousness, which required retest.
Data/Documentation	Misunderstandings caused by unclear questions (or not having prepared for the pretest) led to increased failure rates, according to examination reports. Case documents note the importance of precision in terms used to avoid such scenarios.

PROBLEM NO. 6

How do you handle situations where a subject’s responses are inconsistent or inconclusive across multiple charts or test formats?

Theme 6: Handling Inconsistent Responses

A common problem in polygraph testing is inconsistent or inconclusive responses, which places an important responsibility on examiners to develop effective response analysis techniques. Environmental distractions, subject anxiety, or trouble with the test format can be

the basis for these inconsistencies. These issues can be addressed, and examination findings can be improved in accuracy using retesting, question modification, and environmental adjustment methods.

Subtheme 6.1: Investigate methods for analyzing inconsistent responses across tests.

The problem of having inconsistent or inconclusive answers in polygraph examinations is so significant that a special analysis was required. Usually, examiners would retest or change the phrasing of the questions or the environmental factors. Discrepancies could be solved with minor changes, such as clarifying questions or cutting out environmental distractions or observations. Documentation of examiners' work, peer reviews, and retesting were documented as effective ways to refine results and underlined the collaborative approach. According to research, iterative testing methods and adaptive techniques help to manage the inconsistency to improve reliability of findings (Wang et al., 2022). Examiners can improve the accuracy and credibility of polygraph results by concentrating on finding particular patterns of inconsistency.

Table 6

Subtheme 6.1: Investigate methods for analyzing inconsistent responses across tests.

DATA SOURCE	EVIDENCE
Interview	P1: “If inconsistent yung results, nag coconduct kami ng another test with the help of other examiner.” P3: “Minomodify naming if need bang i-enhance yung tanong to have clear answers.” P5: “Kino consider din naming yung environment if nakaka-apekto ito kaya nagkakaroon ng inconsistent response.”
Observation	Inconsistent results were examined and environmental factors were corrected to chart. In order to ensure accuracy, methods such as asking clarifying questions, rephrasing etc. that have been shown to be used were used.
Data/Documentation	The time-consuming process of resolving inconsistencies was highlighted by logs of retests and reformat. Among the strategies for achieving accurate results, collaboration among examiners was documented.

PROBLEM NO. 7

How do you ensure that your polygraph examinations adhere to professional standards and best practices?

Theme 7: Adhering to Professional Standards

Polygraph is an important tool a professional uses in gathering evidence; therefore, maintaining professional standards is necessary to ensure the credibility and reliability of those Polygraph exams. The usual protocol requires that examiners act according to published procedures, get consent and assure that the procedures abided by the ethical guidelines. Training and certification programs are essential for preparing examiners to understand and apply these standards, ensuring consistency and professionalism in polygraph examiner service.

Subtheme 7.1: Evaluate the importance of examiner training in maintaining standards.

Maintaining professional standards is the most important aspect of ensuring polygraph examinations retain credibility and reliability. Trained examiners were observed to practice adherence to protocols, for example, obtaining informed consent and maintaining confidentiality, all the time. Training and certification programs were two important components that provided examiners with the skills and knowledge needed to fulfill these standards. Stations that followed professional standards had fewer error and complaint rates. Such standardized training and continuous professional development are necessary to achieve consistent examiners and enhance public perception of polygraph examinations (Honts et al., 2020). Those practices also improve test accuracy and guarantee the integrity of the forensic process.

Table 7

Subtheme 7.1: Evaluate the importance of examiner training in maintaining standards.

DATA SOURCE	EVIDENCE
Interview	P1: “Dapat lahat ng facts of the case ay accurate at signed by investigator on case.” P3: “Masasabi kong standard yung at professional ang kilos naming kasi ito ay naka base sa standard protocols.” P5: “Dapat rin bago ka mag undergo ng examination ay dapat ineensure mo na yung subject ay naka comply.”

Observation	The protocols that appeared to have been followed routinely were those for informed consent and confidentiality assurances. To do that examiner prioritized proper documentation and away from bias.
Data/Documentation	Training records indicated that accuracy was better and with fewer complaints when professional standards were followed. Internal audits also helped stations with better outcomes to be found, that is, stations with strong compliance.

PROBLEM NO. 8

What are some of the most significant limitations or potential sources of error in polygraph testing that you are mindful of?

Theme 8: Limitations of Polygraph Testing

Despite its extensive use, polygraph testing is inherently an unreliable and invalid procedure regarding reliability and validity. Environmental distractions, examiner bias, and subjects' use of countermeasures can all compromise results. The physiological backing of polygraph testing does not always concern deception. It is, therefore, subject to potential error. However, the limitations described here must be recognized and corrected to enhance the effectiveness of polygraph examinations.

Subtheme 8.1: Analyze factors that affect the validity of polygraph results.

The validity of polygraph testing is limited, however, by environmental distractions, equipment malfunctions, and subject countermeasures. We observed recurrent problems of noise, temperature fluctuations, and examiner bias. The limitations were documented and the finding was that regular equipment updates and examiner training were leading to severe limitations being addressed. Studies have shown that the polygraph examination is an instrumental test that never corresponds directly with the deception physiological measures (Yarbrough, 2020). To address these challenges, continuous refinements of testing methodologies and investment in more advanced equipment to increase reliability and validity are essential.

Table 8

Subtheme 8.1: Analyze factors that affect the validity of polygraph results.

DATA SOURCE	EVIDENCE
Interview	<p>P3: “If hindi rin accurate yung questions or hindi akma sa facts of the case.”</p> <p>P4: “If distracted yung subject sa place or sa environment where the examination was conducted.”</p> <p>P6: “If sinusubukan ng subject na manipulahin yung result gamit yung physical or mental countermeasure niya.”</p>
Observation	<p>Physiological readings were observed to be affected by environmental factors including noise and temperature. However, examiners were concerned that machines would be unable to detect subtle deception techniques.</p>
Data/Documentation	<p>Frequently cited sources of error were equipment malfunctions mentioned in maintenance logs. As with any polygraph testing the reports stressed the importance of regular updates and training to compensate for the inherent limitations of the tests.</p>

PROBLEM NO. 9

How do you ensure that your questioning techniques and phrasing are clear, unambiguous, and appropriate for the subject and case?

Theme 9: Clarity in Questioning Techniques

Polygraph examinations are only as good as their ability to elicit clear and effective questioning. Precise, relevant to the facts of the case, and easy for the subject to understand, questions must be asked. Ambiguous or badly phrased questions can result in miseducation and unreliable results. By asking questions about the subject and facts in that case, examiners must be clear and understand clearly and avoid miscommunication as much as possible.

Subtheme 9.1: Assess strategies for creating clear and relevant questions.

Polygraph examinations are only successful with the clarity and relevance of the questioning. Misinterpretation is common as a poorly phrased or ambiguous question leads to inconclusive results, making the question creation itself less valuable if poor at discovering errors. It was observed that precise and brief phrasing promoted subject cooperation and attenuated defensive behaviors. It highlighted the need to align questions with facts and cases and make them accessible to the learner. It is found in research that polygraph examination reliability is dependent upon the examiner’s ability to formulate practical questions (Rad et

al., 2023). Continuous training in this area ensures that questions are clear, unambiguous, and relevant.

Table 9

Subtheme 9.1: Assess strategies for creating clear and relevant questions.

DATA SOURCE	EVIDENCE
Interview	P1: “I ensure that all the questions are related to the facts of the case to avoid unnecessary topics.” P5: “Dapat yung tanong naming ay maiintindihan ng subject sa salitang alam niya at maiintindihan niya.”
Observation	Phrasing used by examiners in their questions was more precise and concise and examiners' cooperation and defensive behaviors were less. Confusion and skewed results were often the result of ambiguous questions.
Data/Documentation	The training materials explained the need for questions that were clear and relevant. The training documentation showed that examiner development in the question formulation was a key area.

PROBLEM NO. 10

What are some of the most important lessons you’ve learned from your experiences as a polygraph examiner that have shaped your approach and techniques?

Theme 10: Lessons Learned from Polygraph Experience

Taking lessons from practical experience, examiners are often developing or refining their techniques. Past examinations reflect areas where improvement can be made, such as making questions more transparent, better rapport-building strategies, or accommodating different subject behaviors. Continuing professional development of examiners, as part of the development of polygraph testing methodologies, also makes use of these reflective practices.

Subtheme 10.1: Explore how examiners use reflection to improve their techniques.

The growth of polygraph examiners requires much reflective practice. Examiners use past experiences to analyze what worked and work on techniques to clear questions and create rapport. It was observed that experienced examiners, if they were allowed to think and

talk through things, were better at dealing with jumpier cases, dealing with higher ambiguity of those results than other people who were not. The reflective practices were documented as the innovative approaches taken, mainly in dealing with complex objects or situations. Litvinchuk et al. (2020) found research to support the idea that continuing to learn through reflection enhances professional development and improves polygraph methodologies. This iterative process enables field adaptability and excellence so examiners remain effective and credible.

Table 10

Subtheme 10.1: Explore how examiners use reflection to improve their techniques.

DATA SOURCE	EVIDENCE
Interview	P1: “Dapat mahal mo ang trabaho mo at alam mo yung ginagawa mo.” P3: “We must exercise diligence in investigating every case at hand.” P5: “Be professional as always.”
Observation	Routine reflection on past cases was a regular part of experienced examiners’ work. Reflections were observed to facilitate adaptation in management of complex scenarios.
Data/Documentation	The continuous learning showed through reflective logs and feedback forms to have contributed to better techniques, such as handling difficult subjects or ambiguous results. Improved outcomes were documented in case records attributed to examiner experience and adaptability.

V. DISCUSSION

This study, "From Psychophysiology to Justice: A Case Study on Overcoming Obstacles in Polygraph Testing at Regional Forensic Unit IV-A," discussed challenges, strategies, and best practices in conducting polygraph examinations at Regional Forensic Unit IV-A. Key obstacles were obtaining consent, subject cooperation, ambiguous results, nervousness, environmental distractions, incomplete case information, and deceptive subject behaviors. A critical factor was rapport building during pretest interviews. Respect, explanations, and a comfortable environment increase cooperation. Ethical dilemmas,

pressure, and examiner bias affect objectivity. Transparency and confidentiality maintain integrity. Examiners require professional development, reflective practices, effective questioning, and specialized training. Challenges can be addressed, reliability and validity improved, and polygraph testing made more effective and credible through recommended strategies.

One drawback of our study is that we could only collect information from one participant in our initial location, limiting the variety of viewpoints and impacting our conclusions' general validity. Additionally, we did not explore the challenges faced by polygraph examiners in terms of organizational and legal aspects, which could have provided a more comprehensive understanding of their role and difficulties. To address these limitations, future researchers are urged to involve a bigger and more varied group of participants from various fields to overcome these restrictions and guarantee wider representation. They might also consider questions about organizational and legal issues for a more thorough understanding of the professional realities polygraph examiners encounter.

Furthermore, the recommendations are based on the findings of this study, and this study recommends actionable strategies for improving polygraph testing practices. These include pretest preparation, examiner training, and technological advances to overcome equipment and procedural limitations. Thus, the polygraph examiner must build a collaboration between the investigation and examiner so that all information necessary for accurate polygraph testing is complete and accurate when the case arrives at the polygrapher's door. To develop the standardized protocols of the pretest preparations. These measures will minimize the inconsistencies and delays and increase the reliability of polygraph results. Moreover, train the examiners about advanced rapport-building techniques to build trust and cooperate with their subjects. That means being an active listener, dealing with issues, showing respect, and explaining the test simply. Also, establishing regular ethical training for examiners to instill the importance of impartiality, confidentiality, and adherence to professional standards. Training in ethical decision-making frameworks should be integral to compassing them through dilemmas such as ambiguous results, investigative pressures, etc. This will guarantee the integrity of the polygraph exam. Lastly, bring polygraph equipment up to date, dealing with noise interference, temperature fluctuations, and obsolete tools. A particular framework is encouraged to invest in technologies that can enhance the ability to detect and increase data accuracy. Polygraph testing will be reliable, and the overall validity will be improved through regular maintenance and equipment upgrades. The measures

proposed in this report are intended to improve the polygraph testing process more effectively and credibly and thus bolster public trust in and support of investigative efforts.

ACTION PLAN

This Action Plan outlines key initiatives to strengthen collaboration and operational efficiency within the Regional Forensic Unit IV-A. By improving rapport-building, targeting training programs, and regular resource updates, this plan seeks to foster stronger rapport between investigators and examiners, enhance the quality and reliability of forensic responses, and ensure equipment and materials remain up-to-date and fully functional. Each plan component has been carefully structured to address specific objectives, with a clearly defined timeframe, designated personnel, and necessary resources. The outlined actions are designed to be implemented across relevant forensic units, supporting continuous improvement and alignment with established protocols and professional standards.

Topic	Objectives	Place	Time Frame	Person In-Charged	Resource Material
Collaboration between Investigations and examiner	Improve the rapport building to build trust.	Regional Forensic Unit	Quarterly	Investigators/ Examiners	Manuals and Protocols
Training programs	Decreases misunderstandings and increases the reliability of responses.	Regional Forensic Unit	Annually	Training Division	Training Manuals, case studies
Resource -Updates	Improved through regular maintenance and equipment upgrades.	Forensic Unit Offices	Quarterly	Regional Chief	Forensic Equipment Data Form

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