

**SAFETY AND CRIME DETERRENCE IN BUSINESS ESTABLISHMENTS
WITH CCTV CAMERAS**

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ABSTRACT

This study investigated the impact of closed-circuit television (CCTV) cameras on perceptions of safety and the prevention of crime deterrence in business establishments. Using a descriptive-correlational design, data were gathered from 120 purposively selected respondents, including business owners, employees, and regular customers of establishments equipped with CCTV systems. Three researcher-made questionnaires were utilized to measure perceptions of safety, perceived crime deterrence, and the presence of CCTV cameras. Data were analyzed using mean and standard deviation to determine perception levels, while Pearson's correlation assessed the relationships among variables. Findings revealed that the presence of CCTV cameras significantly influences stakeholders' perceptions of safety and crime deterrence in commercial areas. Perceived safety was strongly associated with personal security, fear reduction, and awareness of surveillance, while perceived crime deterrence was linked to increased reporting, reduced theft and burglary, and minimized property damage. Moreover, the visibility, functionality, and strategic placement of CCTV systems were vital in shaping these perceptions. The study concludes that CCTV cameras not only serve as tools for evidence collection but also foster a psychological sense of security that enhances customer confidence and supports business sustainability. Business owners and security planners may adopt comprehensive security systems that integrate well-maintained, strategically placed CCTV cameras with visible security personnel, improved lighting, and community engagement to enhance both actual crime prevention and perceived public safety.

Keywords: *business establishments, CCTV cameras, crime deterrence, perceived safety, surveillance*

DEDICATION

*This research is humbly dedicated to Almighty God,
for His wisdom, strength, and guidance that sustained us
throughout the challenges of this academic journey.*

And

*To our parents and families,
whose sacrifices, prayers, and unconditional love
served as the foundation of our perseverance and success.*

And also

*To our friends and peers,
whose encouragement and companionship
reminded us that no journey is taken alone.*

Finally,

*To the business owners, employees, and customers
of the establishments that inspired this study,
whose daily pursuit of safety and security
continues to motivate our commitment to this work.*

The Researchers

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The Researchers

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INTRODUCTION

Background of the Study

Crime and insecurity are still widespread issues in cities across the globe, having far-reaching societal and economic effects (Atai & Ita, 2021; Nwoku & Ogayi, 2021; Kashif et al., 2025). Increasing crime levels risk public security, lower the quality of life for citizens, and deter economic investment from targeted neighborhoods (Navarrete-Hernandez et al., 2023; Springs, 2024; Owens & Ba, 2021). Perceptions of security are crucial to building vital communities and thriving economic development, prompting policymakers and security forces to rank crime prevention as a first-order issue (Mak & Jim, 2022; Leheza et al., 2021). Countering these threats necessitates sustained efforts to comprehend and contain the drivers of urban crime and insecurity (Kashef et al., 2021; BaffourAdumata, 2025; Ceccato, 2020).

In the Philippines, the integration of surveillance technology into public safety and business security has become a national priority through initiatives such as the Safe City Program and the Davao Public Safety and Security Command Center, which utilize CCTV networks to enhance real-time monitoring, emergency response, and crime prevention (Dugayon et al., 2025). Across various local government units, ordinances now require the installation of CCTV systems in commercial establishments, banks, and other high-traffic areas to strengthen situational awareness and deter criminal activities (Kirui, 2024). These efforts collectively demonstrate the country's commitment to leveraging technology as a proactive measure in maintaining peace and order, fostering safer communities, and promoting investor and consumer confidence in urban business environments.

Surveillance technologies, in particular closed-circuit television (CCTV) cameras, have now become an indispensable part of contemporary crime prevention measures globally, with real-time monitoring and evidence gathering features (Southerland, 2023; Gee, 2020; Bernotaite, 2023). Across the globe, cities and nations have widely used CCTV systems across urban areas and business districts to discourage criminal elements and secure citizens (Anderez et al., 2021; Laufs & Borrion, 2022; Wall, 2024). At the national level, most governments acknowledge the efficiency of surveillance in minimizing crime rates and aiding law enforcement (Faqir et al., 2023; Fontes & Perrone, 2021; Stoyanova et al., 2020). The widespread use of CCTV is indicative of increasing dependence on technology to meet security needs in crowded public and private settings (Vogiatzaki et al., 2020; O'Malley & Smith, 2022; Troisi et al., 2022).

CCTV cameras are commonly deployed in private and public business outlets to ensure security and guard assets (Mondela & Sirera, 2023; Alabi et al., 2021; Prenzler, 2021). In business settings, these systems perform a variety of roles, such as discouraging criminal activity, tracking employee and customer activity, and delivering valuable evidence in the event of accidents (Govender, 2021; Papale, 2024; Van Riet, 2020). Widespread use of CCTV in businesses indicates effectiveness in curtailing theft, burglary, and other forms of security breaches. Moreover, surveillance systems assist management in monitoring day-to-day activities and ensuring safety procedures are complied with (Minocher & Randall, 2020; Heydari, 2022; Shenoy et al., 2021). Generally, CCTV is crucial in ensuring a safe and responsible business community.

Perceived safety is of important psychological and social worth to customers, employees, and business operators, and it instills an atmosphere of trust and security in

commercial settings (Khairy et al., 2023; Silva et al., 2023). Surveillance systems, especially CCTV, have an impact on these perceptions by instilling a sense of increased security, which acts to discourage likely perpetrators and make stakeholders feel secure (Tran et al., 2022; Devkota, 2024; Ghimire & Rana, 2023). As people perceive that they are under observation, they tend to experience less fear of crime, and this promotes a good business environment (Zhang et al., 2021; Fe & Sanfelice, 2022; Jing et al., 2021). Therefore, surveillance-induced perceptions of safety may influence business behaviors and satisfaction.

Criminological theories such as Routine Activity Theory and Crime Prevention through Environmental Design (CPTED) form the basis of knowledge on how surveillance affects crime deterrence. Routine Activity Theory implies that the intersection of motivated offenders, available targets, and effective guardianship can be prevented by surveillance, thus diminishing crime opportunities (Chan & Gibbs, 2022; Vakhitova, 2025; Valasik & Torres, 2022). CPTED highlights environmental adjustments, such as surveillance, to bring about ambiances disincentivizing criminal behavior (Armitage & Thompson, 2022; Gooren, 2023; Choi et al., 2025). Perceptions of safety over factual crime statistics give insight into how people perceive security, which can affect behavior and security measure support (Kochel & Nouri, 2021; Basu et al., 2022; Mayer et al., 2021).

Prior literature finds a lack of empirical evidence specifically addressed at how perceptions of the effectiveness of CCTV are constructed within commercial settings (Piza, 2021; Ranieri et al., 2022; Doberstein et al., 2022). There is also limited extensive research associating perceived safety with quantifiable crime deterrence results in private sector contexts, so it is difficult to gain a complete appreciation of the surveillance effect beyond

statistical crime reduction (Van Steden & Mehlbaum, 2022; Ceccato et al., 2022; Ison & Matthewson, 2023). Filling these gaps would enhance the depth of understanding of the perception's role in security practice and its real-world effects (Chookaew et al., 2024; Saeed et al., 2024).

The study sought to determine the possible disparity or convergence between perceived safeties traced to CCTV systems and their effectiveness in crime deterrence in business premises. The overarching objectives are to evaluate stakeholders' perceptions regarding CCTV's role in security and testing how these align with stakeholders' perception and recorded crime data, thus offering an overall picture of the impact of the system both psychologically and empirically.

It is important to understand safety perceptions in order to create sound security policy and business strategy, since stakeholders' confidence matters in investing in surveillance and security programs. Quantitative methods of evaluating the relationship between perceived security and actual crime rates were recommended in the study in order to provide evidence-based decision-making. Through this, targeted interventions that move perceived and actual safety in sync can be developed, leading to the improvement of effectiveness in business surveillance systems.

The research adds to theoretical knowledge, policy making, and best practices in practical security arrangements in the private sector. It will be useful to business entrepreneurs, security organizations, and city planners as it identifies the role of perception in planning for security. Ultimately, the study seeks to inform the formulation of comprehensive approaches that improve both perceived safety and actual safety in business settings.

Despite the widespread adoption of CCTV systems in Philippine business districts, few studies have quantitatively examined how stakeholders' perceptions of safety and deterrence relate to CCTV visibility, functionality, and placement. This gap limits understanding of how surveillance technologies contribute not only to actual crime reduction but also to psychological reassurance and business confidence.

Theoretical Framework

This study was anchored on Routine Activity Theory by Cohen and Felson (1979), Crime Prevention through Environmental Design (CPTED) by Greg & David (2005) and Defensible Space Theory by Oscar Newman (1972).

Routine Activity Theory is a basic theory still used in the field of criminology, and explains when and where crimes are likely to occur due to the convergence of three elements; a motivated offender, a suitable target and the lack of a capable guardian (Parti, 2023; Berg & Schreck, 2022; Chen et al., 2025; Gottschalk, 2021). And it emphasizes the importance of situational and environmental factors in eliciting the opportunity for the occurrence of crime (Dodaj et al., 2024; Powell, 2024). There is an obvious relationship between guardianship and reduction of the occurrence of criminal behavior in terms of diminishing the opportunity for crime through close monitoring and increased natural guardianship (Griffith et al., 2023; Jeffery, 2021). The environment design features such as lighting and surveillance cameras are important in terms of supporting guardianship through access reduction, thereby making targets less suitable and attractive to potential offenders (Lee et al., 2022; Al-Ghiyadh & Al-Khafaji, 2021; Akinyetun & Bakare, 2022; Townsley, 2024). An important assumption of the theory is that public places that are well attended by people tend to have a greater level of natural guardianship, and therefore

experience less or no crime than less monitored locations (Harris, 2024; Gong et al., 2023). The key element is the situational crime prevention that breaks this convergence (Diniz et al., 2024; De Nadai et al., 2020). The theory supports crime prevention strategies such as cameras, lights, neighborhood watch programs, and other steps to increase guardianship (Hodgkinson & Andresen, 2020; Mejia et al., 2024; Amiri & Alomosh, 2022; Kraska et al., 2020; Ghazi-Tehrani & Pontell, 2022; Engin et al., 2020).

This research is by using another capabilities of Routine Activity Theory (RAT), he would like to evaluate the guardianship of CCTV system in commercial premises, by increasing surveillance and good opportunity for motivated offenders (Lee et al., 2022). To explore the perceptions of security and safety of the Stakeholders related with the visibility, visible placement of CCTV and the presence of monitored system, this shows a similar focus in RAT on changing an environment to make it less suitable for offenders. The study finds out the role of guardianship as the critical factor for evaluation of CCTV place, movement as well as the presence of monitored system by challenging the perception of physical security in business owners, business surroundings and customers and expected to secure for preventing the crime from crime. In addition, it would be pointed out the use of CCTV requires to be supported by the situational crime prevention actions, such as increased lighting and community participation, which is suggested in the theoretical literature for effecting the cycle of offender, suitable target and absence of guardian (Lee et al., 2022; Al-Ghiyadh and Al-Khafaji, 2021; Townsley, 2024).

In support of the theoretical connection, several empirical research have provided evidence that proves Routine Activity Theory is successfully applicable for crime prevention. Marube (2024), for instance, has demonstrated that situational crime

prevention implementation can provide positive results in curbing burglaries and vandalisms along with improved perceptions of security stakeholders of a business. Such developments as CCTV and adequate lighting can be leveraged at the avenue of capable guardians to discourage potential offenders as argued by Lee et al. (2022) and Al-Ghiyadh and Al-Khafaji (2021). Systematic community engagement can support the long-term effect of crime prevention, as identified by Awoyemi et al. (2025), and its social side of guardianship can be put to effective use in criminal deterring efforts [T10 p.42]. Hodgkinson and Andresen (2020) and Mejia et al. (2024), on the other hand, state that environmental modifications have great potential of disrupting routine activities for selecting and creating crime opportunities in new dimensions. In general, these empirical researches serve as evidence of how Routine Activity Theory is useful in linking surveillance efforts with environmental changes in business applications.

Crime Prevention Through Environmental Design (CPTED) is a concept proposed by Couzens, Greg and David (2005) with the goal of devising design strategies for the reduction of crime opportunities. The principles of CPTED can be summarized as natural surveillance intended to make offenders visible to legitimate users or surveillance systems, thereby prompting increased risk to visibility (Lee et al., 2023; Oh et al., 2023; Safizadeh et al., 2024), access control which manages physical space, restricting or delineating access to reduce offenders chance of being able to hit their target (Songole, 2024; Gouveia et al., 2021), territoriality which supports community ownership, encouraging visual and physical control to be imposed over their spaces, thus stabilizing the natural environment and reducing delinquency (Cho et al., 2021; Shariati, 2022), and maintenance of the natural environment through lighting, upkeep, signage etc. to enhance active surveillance in order

to prevent crime (Kong et al., 2024; Senna et al., 2025). CPTED strategies also involve community participation where community members take responsibility for their environments through activity support, target hardening, increased design surveillance and other community involvement initiatives, which would ultimately limit crime opportunities, improve community integration and enhance the quality of life (Ugur et al., 2023; Shashban et al., 2024). Park et al. (2023) argued that the CPTED theory demonstrates the importance of foreseeing the problem of crime and developing a proactive, preventive conception for designing safer built environments instead of reacting to crime.

In addition, target hardening, activity support, easy access, community involvement, formal and informal social control, and natural surveillance are the CPTED principles that facilitate community participation to provide a basis for the success of CPTED applications (Dabaghi et al., 2022; Miller et al., 2021). CPTED emphasizes the role of barriers, signage and natural surveillance which enhance perceived control and maintenance (Ugur et al., 2024; Malek et al., 2023; Ahmadi et al., 2022). CPTED also mobilizes informal social control by encouraging citizens to exert social control and build community cohesion and hence, community efficacy, in order to achieve a common goal of safe places (Kirk & Lawton, 2022). Modern adaptations of CPTED are characterized by the active participation of community members in crime reduction that would diminish the need for inspectors and the police (Cozens & Stoks, 2025; Li et al., 2025). CPTED policies have evolved to become sustainable approaches involving citizen involvement in the design of their spaces as well as the formation of resilient communities (Shirvan, 2022; Pisarkov et al., 2024; Peng et al., 2023; Chinjang et al., 2022).

In this study, CPTED is used as a theoretical framework of how environmental designs and surveillance measures (as installing CCTV, lighting, and maintenance of streets and shopping areas) work on deter actual city crimes and improve perceived safety at commercial environment. As the security benefits of security lighting and 24-hour service are validated empirically, the theory supports the hypothesis about how the people could make use of ambient and social environments (including physically modified urban environments) to establish safer environment which discourages criminal behavior effectively. In addition, the CCPETD also reflects the practicality of CCTV around commercial areas while the property marking, access controls, and territoriality in how to manage physical and social environment.

A variety of other existing studies confirm CPTED's ability to promote security and deter crime by means of environmental design. For example, Lee et al. (2023) used environmental audits, contributed by residents, to assess CPTED's influence on crime reducing the area around schools, citing natural surveillance. Songole (2024) and Gouveia et al. (2021) identified access control as essential in controlling offender movement. Kong et al. (2024) and Senna et al. (2025) established that maintenance and lighting are as fundamental as they allow observation and activity to prevent unning environments. Askari and Soltani (2023), along with Armitage and Thompson (2022), demonstrated activity support and target hardening as being the cause for lowered crime opportunities, allowing legitimate usage of space. Jagamogan et al. (2022) and Bolici (2023) investigated how physical boundaries and signage affect impressions of control, while Akbarshahi and Soheili (2021) and El-Hadedy and El-Husseiny (2022) looked to informal social controls for cues onto community perceptions of efficacy. Lastly, Cozens and Stoks' (2025),

Shirvan's (2022), and Gorjizadehotagsara et al.'s (2025) researches on CPTED from a community standpoint testified how reducing the need for intervention can foster resilience and promote security via social coherence.

Defensible Space Theory: Newman (1972) argues that people's feelings of safety are increased in environments that are designed to community ownership, puts of visibility and gaze of interaction. The theory states that if space is clearly segmented and designed around the control of behavior and the encouragement of natural surveillance, then those living or using the space become connected with taking an interest or even responsibility for the security of the premises. In this way the scene becomes inhabited and this deters potential offenders as the area becomes a 'natural' focus for control and attention.

This approach applies a theoretical perspective, Defensible Space Theory, to consider the effect the presence and placement of CCTV has on perceptions of safety when located within business premises. The model concentrates on Territorial Reinforcement and Natural Surveillance encouraged by CCTV to analyze how physical configuration and surveillance technologies work together to create safe, supportive spaces that enhance the confidence and control of users as well as assure actual safety. It offers a theoretical starting point for considering the psychological impact of surveillance using mechanisms like CCTV.

Various related works seem to reaffirm the use of the Defensible Space Theory in explaining surveillance and perceived safety: Mara and Cutini (2024) indicated that the creation of spaces for territoriality and surveillance allowed residents to adopt protective behavioral practices that mitigate the chances of crime occurring, and Arghyani (2020) also concluded that the presence of clear boundaries and surveillance tools increased resident

confidence and decreased perceptions of crime. Gooren (2023) found evidence to suggest that establishments contain operating conditions such as clear viewing lines, illumination and CCTVs that promoted community ownership and minimized opportunities for crime. Another is the work of Hajiyat et al (2021) who claimed that the concept of defensible space is relevant to urban security needs which the researcher deems as applicable when bridges are drawn between the physical and psychological security needs. Morton (2020) also revealed the diminution of disorder across defensible spaces, while Mshelia et al. (2024) concluded that the presence of visible surveillance tools such as the CCTV promoted offender regulation and gave legitimacy and reassurance to legitimate users. All these works seem to corroborate the idea that Defensible Space Theory is effective in explaining how design influences perceived safety in the context of businesses.

Conceptual Framework

The perceived safety, security of person, reduction of fear, and surveillance awareness draws attention to the psychological advantages of CCTV installation (Ardabili et al., 2024; Tykesson, 2025). Surveillance cameras have the effect of increasing people's sense of safety and protection both in public and private areas and improving confidence in the environment (Zhang et al., 2023; Fontes et al., 2022). CCTV is also efficient in lowering fear and apprehension about crime so that individuals feel calmer knowing they are being watched (Elonge&Ngange, 2023; Roberts et al., 2025). Moreover, exposure to surveillance shapes conduct, instilling fearfulness and even more obedient behavior, which contributes to a greater feeling of safety. These attitudes overall create a more secure atmosphere and enforce the worth of surveillance systems in crime prevention.

Personal security deals with how individuals feel about being secure and safe in both public and private places, which may be shaped by the presence of surveillance systems such as CCTV (Morgan & Dowling, 2021; DegliEsposti et al., 2021). Evidence indicates that having cameras installed boosts individuals' sense of safety, inhibits crime, and dissuades crime prior to its occurrence (Agbongiasede, 2024; Thomas, 2023). Personal security is also influenced by monitoring awareness, which motivates defensive behavior and diminishes anxiety concerning victimization. These perceptions are essential to the development of feelings of confidence and comfort in different contexts, leading to a safer society in the end (Dryden et al. 2021; Malik et al., 2024). As a result, understanding and enhancing personal security perceptions are key elements in successful security measures.

Fear reduction points out the way the visibility of CCTV cameras can substantially reduce people's fear of possible crime and victimization within the public area (Pisier-Caillet&Ristea, 2024; Cocco et al., 2025). Perceptibility of surveillance systems has also been proven to reduce fear of theft, violence, and other forms of crime, providing a more comfortable atmosphere for shoppers and employees alike (Iqbal & Nazir, 2025; Flax & Shannon, 2024). Additionally, the knowledge that activities are being tracked can provoke feelings of safety, which create reduced feelings of vulnerability. This fear reduction not only enhances well-being but also leads to greater levels of active community participation (Chen & Zhang, 2022; Nieuwenhuijsen et al., 2024). Therefore, CCTV is an integral part of creating settings in which people feel safe and less anxious about threat.

Awareness of Surveillance highlights how people's awareness of being watched by CCTV affects how they behave and perceive safety (Jaffe &Pilo, 2023; Liu, 2024). If individuals are made aware that their behavior is being recorded, they behave more

responsibly and carefully in observed spaces. This vigilance can promote safety benefits as people and communities are aware that the surveillance acts as a crime deterrent (Walby& Joshua, 2021; Paek& Lee, 2025). In addition, the feeling of being under observation creates an element of responsibility, which helps ensure a more secure state (Small & Lew, 2021; Bistron& Piotrowski, 2021). Overall, an awareness of being monitored is instrumental in ensuring security and forcing people to act responsibly.

The perceived crime deterrent highlights CCTV's role in stimulating reporting rates, deterring theft and burglary, and decreasing property damage (Shah & Kanwal, 2021; Foreman-Peck & Zhou, 2025). The mere presence of cameras increases people's confidence to report because visual proof can smooth the investigative process and build confidence in the reporting process (Given-Wilson & Memon, 2022; Hochstein et al., 2023). CCTV has been found to discourage opportunistic crime such as shoplifting and internal theft, discouraging businesses from being targeted by criminals (Gotham & Kennedy, 2021; Simukonda&Kamwela, 2021). In addition, observable surveillance cameras ward off property damage and vandalism, resulting in fewer repair expenditures and a more secure environment in general. Taken as a whole, these indicate the enormous effect CCTV has on curbing several forms of crime and improving security for property.

Reporting rates highlight the function of CCTV in making people report crimes more often and with confidence (Thomas et al., 2022; Jung & Wheeler, 2023). Research indicates that the availability of CCTV footage not only makes the people confident about their environment being safe but also increases their confidence in the reporting process (Tran et al., 2022; Benton et al., 2024). If individuals are aware that their reports can be corroborated by video footage, they will also be more willing to report and provide

information about occurrences (Gimpel et al., 2021; Miller et al., 2021). This enhanced reporting can lead to faster investigations and assist law enforcement in responding to offenses effectively. As such, CCTV seems to be an effective tool in promoting community engagement in crime reporting initiatives.

Reduction in theft or burglary describes the deterrent role of CCTV in deterring the commission of the same (Fondevila et al., 2021; Ashiyana, 2022). Findings affirm that businesses with CCTV installed are less susceptible to shoplifting and theft from within, as the cameras act as a conspicuous warning against prospective criminals (Shankarlal& Parikh, 2023; Balasubramaniam et al., 2021). Conspicuous CCTV cameras can deter burglars and thieves from attempting to break the law, decreasing chances for property theft and burglaries. In addition, the availability of CCTV footage can deter repeat offenses by offering proof leading to the arrest of repeat offenders (Wheeler et al., 2021; Ariel et al., 2024). Overall, CCTV plays a huge role in reducing property crimes in areas under surveillance.

Lower property damage highlights how CCTV helps diminish vandalism and destruction of property in different places (Seifi et al., 2023; Arthur-Aidoo et al., 2023). Research indicates that people are less likely to damage property deliberately when surveillance cameras are present because they are under the watchful eyes of CCTV (Cave, 2022; Falangon, 2022). CCTV also helps identify perpetrators of property damage, which aids in enforcement and accountability. In addition, business owners can use CCTV images to avoid expensive repair and maintenance due to vandalism. Therefore, CCTV surveillance effectively reduces the threat of property damage and its cost (Matczak et al., 2023; Lang et al., 2025).

The presence of CCTV cameras highlights the significance of visibility, functionality, coverage, and strategic positioning in improving security (Lysova, 2025; Jeon et al., 2024). Visible cameras act as deterrence by indicating active monitoring, which can decrease criminal activity and ensure cautiousness among possible offenders (Gómez et al., 2021; Vári et al., 2025). Moreover, well-maintained and working CCTV systems guarantee efficient monitoring and evidence collection, which are important for investigations and solving crimes (Vaddi et al., 2024; Yigitcanlar et al., 2024). Adequate coverage and proper positioning of cameras in high-risk zones optimize surveillance efficiency and minimize blind spots, thus making environments safer. In general, the success of CCTV as a crime prevention strategy greatly relies on the manner in which its presence is strategically maintained and monitored.

Visibility highlights the conspicuous positioning of CCTV cameras as significant in deterring criminal offenses and facilitating effective surveillance (Peters, 2021; Coaffee, 2024). Overt cameras play a psychological deterrent role by indicating surveillance presence, which dissuades potential offenders from committing illegal acts (Oguz et al., 2023; Laufs, 2022). The conspicuous and clear positioning of CCTV gear also facilitates the better chances of obtaining vital footage, hence aiding investigations and resolution of crimes. In addition, noticeable cameras can enhance public confidence and reassurance, bringing a feeling of safety within areas being monitored (Sandhiya et al., 2024; Darwish, 2025). In general, visibility of CCTV cameras is essential in achieving maximum preventive and investigative efficiency.

Functionality accentuates the key function that CCTV systems perform in actively observing and documenting activities within observation zones (Thakur et al., 2021;

Garske et al., 2025). Sophisticated functionalities, including real-time video analysis and automated alerts, support the capacity of security agents to effectively respond to incidents (Kumar et al., 2024; Johnson et al., 2024). Efficient CCTV systems also support the gathering of high-quality evidence that can be utilized in court cases and investigations, reinforcing the security infrastructure as a whole. In addition, functionality comprises accessories such as night vision and motion detection, which enhance surveillance performance in diverse conditions (Raza et al., 2023; Stoychev&Hutov, 2024). Through ensuring comprehensive and reliable operation, CCTV systems play a crucial role in crime prevention and safety management.

Coverage and placement highlights the strategic positioning of CCTV cameras to achieve their full potential in security monitoring and crime prevention (Olipas, 2024; Apene et al., 2024). Effective placement guarantees surveillance of areas of importance, including entrances, exits, and high-risk areas, minimizing blind spots and maximizing deterrence. Environmental conditions and patterns of community use should also be taken into account for coverage, to maximize visibility and detection of incidents (Adewopo et al. 2023; Rane et al., 2024). Efficient placement of CCTV cameras is complemented by environmental design principles like Crime Prevention through Environmental Design that dictate the positioning of cameras for effective full coverage (Walker, 2022; Alteri, 2024). In general, focused coverage and careful placement are imperative for determining the CCTV system's effectiveness and success in operation.

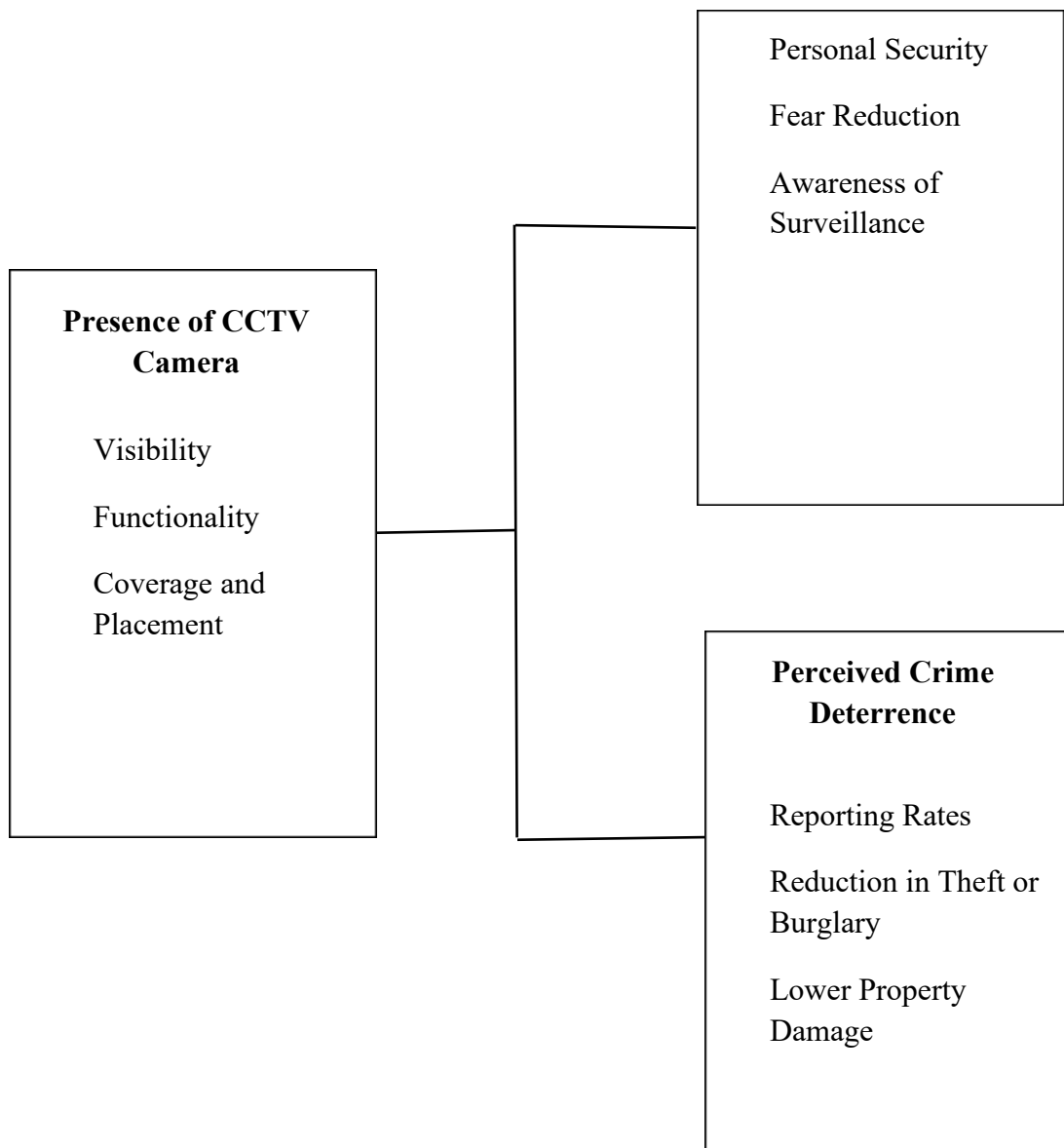


Figure 1. Schematic Diagram of the Study

Objectives of the Study

This study would explore the influence of the presence of CCTV cameras on the perceptions of safety and crime deterrence among individuals within business establishments.

Specifically, this study aimed to answer the following questions:

1. Determine the level of perceived safety in business establishments in terms of personal security, fear reduction and awareness of surveillance
2. Determine the level of perceived crime deterrence in business establishments in terms of reporting rates, reduction in theft or burglary, and lower property damage
3. Determine the level of CCTV camera presence in business establishments in terms of visibility, functionality, and coverage and placement
4. Determine the a significant relationship between the presence of CCTV cameras and perceived safety in business establishments.
5. Determine the a significant relationship between the presence of CCTV cameras and perceived crime deterrence in business establishments.

Null Hypotheses

H₀₁: There is no significant relationship between the presence of CCTV cameras and the perceived safety in business establishments.

H₀₂: There is no significant relationship between the presence of CCTV cameras and the perceived crime deterrence in business establishments.

Significance of the Study

The study is significant as it deepens the understanding of how CCTV cameras influence perceptions of safety and crime deterrence within business establishments. The findings offer valuable insights for managers and entrepreneurs by highlighting how surveillance systems can strengthen security, reduce opportunities for criminal activity, and build greater trust among employees and customers. For law enforcement agencies, the results provide an empirical basis for integrating technology-driven strategies into existing crime prevention efforts. Moreover, the study can guide policymakers and local government units in formulating evidence-based regulations that ensure the responsible and strategic use of CCTV for public safety. Academically, it enriches criminological literature by emphasizing the psychological and social impacts of surveillance, offering both theoretical and practical implications for designing safer and more secure business environments.

RESEARCH METHODOLOGY

Design

This study was employ a quantitative research design specifically a descriptive-correlational kind of research design in investigating the correlation of the installation of CCTV cameras with business establishments' perceptions of safety and crime deterrence. The design enables the researcher to measure the strength and direction of relationships between variables but not causation. It is suitable for investigating CCTV visibility, functionality, and location in terms of people's perception of safety and perception of crime deterrence. The design offers informative findings regarding the effectiveness of surveillance systems in fostering public confidence and security in business.

Setting

This study was conducted in one of the selected cities in Misamis Occidental, focusing on individuals who frequent or manage business establishments equipped with CCTV surveillance systems. The chosen location is a developing urban area within the province, characterized by a growing commercial sector that includes retail stores, restaurants, and other service-oriented businesses. This area was selected due to its visible use of CCTV technology in both small and medium-sized establishments, providing a relevant environment for examining perceptions of safety and crime deterrence. By exploring the experiences and insights of individuals within this context, the study aims to better understand how surveillance contributes to their sense of security and views on crime prevention in commercial spaces.

Respondents

The study involved approximately one hundred twenty (120) respondents, consisting of business owners, employees, and regular customers from selected establishments equipped with CCTV surveillance systems in one of the cities in Misamis Occidental where commercial areas actively utilize such technology. A purposive sampling technique will be employed to ensure that participants have direct and meaningful exposure to CCTV-monitored environments, making their insights relevant to the study's objectives. Participants must meet the following inclusion criteria: (1) be at least 18 years old; (2) either own, work in, or regularly visit a business establishment with functional CCTV systems; (3) have observed or interacted with CCTV surveillance within the establishment for at least three months; and (4) be willing to voluntarily participate and provide informed consent. This group is expected to provide valuable perspectives on how the presence of CCTV influences perceived safety and crime deterrence in business settings.

Instruments

A. *Perceived Safety Questionnaire*. This is an adapted questionnaire instrument was developed specifically for this study based on a thorough review of literature on safety perception and surveillance. It is designed to measure three key subconstructs of perceived safety: personal security, fear reduction, and awareness of surveillance. The questionnaire consists of 15 items 5 statements for each subdimension to ensure the reliability and validity of the test. The scale below is used for interpretation:

Scale Responses	Range	Interpretation
4 – Strongly Agree	3.28 – 4.00	Very High Perception of Safety
3 – Agree	2.52 – 3.27	High Perception of Safety
2 – Disagree	1.76 – 2.51	Low Perception of Safety
1 – Strongly Disagree	1.00 – 1.75	Very Low Perception of Safety

B. *Perceived Crime Deterrence Questionnaire*. This survey instrument is also researcher-made and was constructed based on a detailed review of literature related to crime prevention, deterrence theory, and surveillance. It assesses three core aspects of crime deterrence as perceived by respondents: reporting rates, reduction in theft or burglary, and lower property damage. The tool includes 15 items 5 statements for each subdimension that capture how CCTV presence influences respondents' views on crime control. Each item was designed to align with the objectives of the study and validated conceptually against existing criminological frameworks. The following scale is applied:

Scale Responses	Range	Interpretation
4 – Strongly Agree	3.28 – 4.00	Very High Perception of Safety
3 – Agree	2.52 – 3.27	High Perception of Safety
2 – Disagree	1.76 – 2.51	Low Perception of Safety
1 – Strongly Disagree	1.00 – 1.75	Very Low Perception of Safety

C. *CCTV Presence Questionnaire*. This researcher-made instrument evaluates the respondents' perception of the presence and quality of CCTV systems in business establishments. It focuses on three subconstructs: visibility, functionality, and coverage and placement. The questionnaire contains 15 items, with 5 statements per subdimension,

developed from literature on surveillance practices and situational crime prevention. The items are designed to reflect how effectively CCTV systems are noticed, understood, and trusted by the public. The instrument's structure supports the study's aim to connect the technical aspects of CCTV to public perception. The interpretation scale is as follows:

Scale Responses	Range	Interpretation
4 – Strongly Agree	3.28 – 4.00	Very High Perception of Safety
3 – Agree	2.52 – 3.27	High Perception of Safety
2 – Disagree	1.76 – 2.51	Low Perception of Safety
1 – Strongly Disagree	1.00 – 1.75	Very Low Perception of Safety

Gathering Procedure

The researchers would first seek approval from the Dean of the College of Criminology at Misamis University and obtain formal permission from selected business establishments in one of the cities of Misamis Occidental. Once approved, the researchers will administer survey questionnaires to approximately one hundred (100) respondents, consisting of business owners, employees, and regular customers from establishments equipped with CCTV cameras. Participants will be selected through purposive sampling and will be informed about the objectives of the study, with assurances of voluntary participation and confidentiality of their responses. The study aims to measure perceptions of safety, crime deterrence, and the presence of CCTV, with all procedures conducted in alignment with ethical standards reviewed and approved by the College Research Committee.

Ethical Considerations

The researchers ensured the ethical conduct of this study by first obtaining approval from the Dean of the College of Criminology at Misamis University. Following this, permission was requested from business establishment owners and relevant local authorities to administer the survey among individuals who have direct experience with CCTV-equipped environments. All participants were informed about the purpose of the study and were assured that their involvement was entirely voluntary. Their responses were treated with strict confidentiality and anonymity, and no identifying information was collected, in full compliance with ethical standards set by the College Research Committee.

Data Analysis

The following statistical instruments are applied in the study:

Mean and standard deviation will be used to determine the respondents' perceived levels of safety, crime deterrence, and the presence of CCTV cameras in business establishments.

The Pearson Product-Moment Correlation Coefficient will be employed to examine the relationships between the presence of CCTV cameras and the perceived levels of safety and crime deterrence among individuals in commercial environments.

RESULTS AND DISCUSSIONS

Perceived Safety in Business Establishments

The perceived safety of commercial establishments not only has a huge impact on the behavior of clients, but successful companies also depend on it for customer and employee satisfaction (Akram et al., 2022). When customers feel confident about the service they are receiving, they would surely be more satisfied and thus loyal to this establishment (Singh et al., 2023). But the sense of safety doesn't hinge only on whether cameras and guards can be seen, or whether lighting is in conformity with established norms (Glynn, 2024). Other intangible factors also come into play, such as what the establishment's official attitude is toward such things as emergencies. Businesses that consciously create and maintain a proper climate for their employees to work in, in places where crime rates are a consideration, can draw the trust and support of the whole community (Streimikiene, 2021). On the one hand we know: Consumer attitudes toward the safety of a place not only influence their actual buying decisions, but also determine long-term economic health by attracting more clients and retaining staffs that are satisfactory both in skill levels and as people. So business owners and management teams should place safety at the top of their priority list, tailoring protective policies for both employees and customers in a way that they can fully understand (Khan et al., 2023). Table 1 shows the perceived safety level of business establishments.

Table 1 shows how safe people feel in business establishments based on responses from 120 individuals. It looks at three main areas: personal security, fear reduction, and awareness of surveillance. The average scores for these areas are 3.65, 3.56, and 3.70, respectively. All these scores fall into the “Very High Perception of Safety” category on

the provided scale. These high average values suggest that most respondents feel very safe in these business environments. The score for personal security, at 3.65, indicates that people believe their physical safety is well protected. Likewise, the fear reduction score of 3.56 shows a notable drop in anxiety about possible threats. This likely helps create a more comfortable and secure atmosphere for both customers and staff.

The highest mean score of 3.70 was recorded for awareness of surveillance, showing that visible security measures such as cameras and monitoring systems increase the perception of safety (Ardabili et al., 2024). Low standard deviations across all sub-constructs (0.07 - 0.12) indicated that the responses given by the participants were highly consistent, one in which they shared the confidence of safety measures being and having been carried out by the business establishments. This would mean that good security is reinforced greatly by the public perception of it (Baffour Adumata, 2025). Therefore, it was equally important to put security procedures in place and let the clients know about them in ways that generate a safe feeling among them (Lysova, 2025). Also, the data call upon a more robust need for businesses to keep and improve the security system because a strong perception of safety not only ensures the patrons' safety but also engenders customer loyalty and sustains commercial activity. The inferences point out that both physical security and its psychological reassurance by surveillance are core components that help shape how the public views safety within business environments (Shetty et al., 2024).

A number of related studies further substantiate the findings associated with high levels of perceived safety in business establishments, reaffirming the role of security measures in ensuring a safe environment. Elnahla (2021), for example, found that visible security measures, such as surveillance cameras, and the presence of security personnel,

greatly legitimize customers' feelings of safety and lessen fear of crime within retail contexts. This study pointed out that the presence of such measures not only dissuades criminal acts but increases trust and satisfaction among customers in general (Pisier-Caillet & Ristea, 2024). Research like that by Malik et al. (2024) confirmed that effective security systems yield great psychological benefits: those aware that surveillance is ongoing report noticeably less anxiety and greater personal security. Such studies corroborate the findings reported here, whereby high awareness of surveillance and personal security is associated with very high safety perceptions (Park & Jones-Jang, 2023).

Also, studies focusing on fear reduction highlight the great importance of creating safe environments in a given business context. Akinbogun et al. (2024) have shown that proactive crime prevention methods and open communication about security policies can help alleviate fear in patrons and employees alike, which in turn promotes business patronage through more frequent and longer visits. Their findings suggest that fear reduction may be a function of businesses communicating with customers directly about safe systems rather than simply the presence of physical security (Chi & Hoang Vu, 2023). Also, Benson et al. (2024) claimed that a more balanced approach combining staff training, surveillance, and engagement with the community yields greater sustainability in the improvement of perceived safety. These studies jointly lend credence to the present findings in that the perceived safety is multifaceted, relying on not only tangible security measures but also the psychological reassurances these provide; producing in the long run trust, thereby enhancing the general experience in business environments (Syropoulos, 2023).

Perceived safety is greatly recognized by establishments and high scores are accorded to it in personal security, fear reduction, and awareness of surveillance, which emphasizes the role of security measures in the creation of environments wherein customers and business staff feel safe and secure (Ahmad & Gustavsson, 2023). This means, therefore, that organizations should be continuously investing in extremely visible security methods and technologies to reinforce those perceptions: surveillance systems, highly-trained security staff, and so on (Campbell III, 2023). Alongside this, an environment should be created where communicating about security is actively encouraged and allow for some focus on its psychological aspect in reducing fear and employing goodwill towards the establishment. In the end, these implications suggest that effective safety approaches engender not only the protection of physical assets but also of customer trust which fosters business sustainability with the heightened patronage and well-being of employees Okeke & Ezennia, 2023).

Table 1. Level of perceived safety in business establishments
N= 120

Sub-construct	Perceived Safety		
	<i>Mean</i>	<i>SD</i>	Remark
Personal Security	3.65	0.12	Very High Perception of Safety
Fear Reduction	3.56	0.07	Very High Perception of Safety
Awareness of Surveillance	3.70	0.07	Very High Perception of Safety

Note: 3.28-4.00 (Very High Perception of Safety); 2.52-3.27 (High Perception of Safety); 1.76-2.51 (Low Perception of Safety); 1.00-1.75 (Very Low Perception of Safety)

Perceived Crime Deterrence

Perceived crime deterrence refers to the members of society's opinion about how crime control measures implemented in an environment prevent crime (Bagalanon et al., 2024). Obviously, it plays a significant part in the attitudes and confidence of employees and customers of the commercial establishment (Fahmi et al., 2023). When most people believe that crime deterrent mechanisms such as the presence of security guards, surveillance cameras monitoring activity, and enforcement of policies are visible and effective, they are likely to interact freely and comfortably on the premises in what would be considered normal behavior (Walby & Joshua, 2021).

The sense of crime deterrence curtails fear and guilt in potential offenders, leading to a safer environment (Chamard, 2024). High perceived crime deterrent conditions build confidence in an establishment's dedication to security, then increase its reputation, thus engendering patronage (Akinbogun et al., 2024). The resulting increased visibility will be favorable for the building security, directly contributing to the business's overall success (Habbal et al., 2024). This results in the level of perceived crime deterrence in business establishments presented in Table 2

Specified the perceived levels of crime deterrence for business establishment by three major sub-constructs: theft or burglary incident reporting rates, reduction in theft or burglary incidents, and lower property damage. Mean scores for all sub-constructs fell within the range of 3.56-3.70, with time, quite low standard deviations (0.07-0.12), indicating slightly above-average consensus among respondents. Accordingly, the results are assigned to the very high perception segments of safety, meaning that the respondents involved believed strongly that there is being deterrence against crime in their business

establishments. With such a high mean score for reporting rates, it would suggest that individuals more feel encouraged and confident enough to report criminal incidents, which is critical for timely intervention and prevention. The strong perception of a reduced theft or burglary level indeed stands out here, combined with the reduced property damage, and can thus reflect that there are preventive measures such as security systems and patrols leading to reduced risks and asset security for the businesses.

The above statement concludes that business establishments have already instituted 'crime deterrence' strategies, which stakeholders can recognize and trust (Coffee Jr, 2021). Reporting confidence of rates denotes an organization's culture in fostering transparency and responsiveness that can translate into an overall secure climate (Rodrigues & Ogata Filho, 2025). Again, it indicates a perceived decrease in theft, burglary, and property damage, which shows that preventive actions are not just perceptible but also effective enough to discourage potential offenders from targeting these firms (Alcobary, 2022). This kind of perceived crime deterrence is very important in creating a conducive environment for businesses to run profitably and customers to enjoy a good experience (Papale, 2024). In fact, the continued sustenance and improvement of these deterrence measures would likely continue enhancing the trust of stakeholders and, ultimately, contribute to sustained growth in the business and the community's safety (Awoyemi et al., 2025).

Several related studies corroborate the present findings regarding the high level of perceived crime deterrence in business establishments as shown in Table 2. For example, Stokes (2021) noted that environmental design and surveillance are effective crime-prevention strategies, particularly for commercial sites, in reducing theft and burglary. The extent to which CCTV cameras, lights, and guards are visible form an immense deterrent

to potential offenders where awareness of such security measures increases the perceived risk of being detected (Ashiyana, 2022). This resonates with present findings where awareness of surveillance and consequently reduced property damage and theft were scored very highly by respondents (Seifi et al., 2023). Similarly, Gaichu et al. (2024) pointed out the role of crime reporting mechanisms in judicial deterrence, stating that high crime reporting rates would enable law enforcement to respond more rapidly and allocate resources effectively to prevent further occurrences. Their conclusions validate the present study findings in recognizing that strong reporting mechanisms improve perceptions of effective crime deterrence (Barnum et al., 2021).

Supporting the positive effect an application of situational crime prevention techniques can have on reducing criminal opportunities in business environments, a study performed by Marube (2024) found that interventions involving situational alterations can target specific crime problems burglary and vandalism so that they result in measurable declines in the incidence of crime and increase safety perceptions among business owners and employees. Such information supports the current findings, since respondents felt there has been a very high decline in theft and property damage (Babar et al., 2022).

In addition, research conducted by Awoyemi et al. (2025) stressed the importance of community engagement and partnerships with business industries for sustained crime deterrence. Alehegn (2025) focuses on shared accountability and proactive communication to improve the overall safety climate, thereby strengthening the perception of crime deterrence as reported in this study. Collectively, these studies offer quite a strong empirical foundation to validate the high perceived effectiveness of crime deterrence

measures in business establishments as indicated in the current research (Lund & Sarin, 2021).

An excessive sense of crime deterrence in business establishments suggests that current security setups and reporting mechanisms are working well in making a safer commercial environment (Iqbal & Nazir, 2025). This carries positive implications for maintaining a sense of security among business patrons, employees, and customers, as well as fostering greater levels of collaboration with law enforcement toward sustainable crime-prevention (Ifeyanichukwu et al., 2025). In essence, the study indicates that investments in surveillance technology, better lighting, and easy reporting channels should, in fact, decrease crime and damage to property (Laufs & Borrión, 2022). These findings highlight the need to support and promote the current measures of deterrence as a means to accomplish a stable business environment, which would increase economic activity and strengthen community confidence in government safety initiatives (Chikwe et al., 2024).

Table 2. Level of perceived crime deterrence in business establishments.
N= 120

Sub-construct	Perceived Safety		
	<i>Mean</i>	<i>SD</i>	Remark
Reporting Rates	3.65	0.12	Very High Perception of Safety
Reduction in Theft or Burglary	3.56	0.07	Very High Perception of Safety
Lower Property Damage	3.70	0.07	Very High Perception of Safety

Note: 3.28-4.00 (*Very High Perception of Safety*); 2.52-3.27 (*High Perception of Safety*); 1.76-2.51 (*Low Perception of Safety*); 1.00-1.75 (*Very Low Perception of Safety*)

Presence of CCTV Cameras in Business Establishments

CCTV camera installation in business premises is considered paramount for creating an illusion of safety and deterring criminal activities (Nzesya, 2024). These surveillance systems can deter offenders and also serve the investigative area of monitoring incidents and post-incident investigations (Chockalingam & Maathuis, 2022). Just the sight of these cameras gives customers, employees, and business owners a sense of security in their daily activities (Tan et al., 2022). Further, from time to time, law enforcement officers may also use the CCTV footage to identify persons of interest, successfully gather evidence, and prove that the offenders are guilty in any court of law (Brookman & Jones, 2022). The literature, over the years, affirms that places that are enhanced with surveillance cameras have lesser cases of theft, vandalism, and other crimes (Silas et al., 2023). Hence, they have historically proven to be effective adjuncts to a more extensive security plan for business establishments (Barnes & Fredericks, 2021). The level of presence of CCTV cameras in business establishments is given in Table 3.

Table 3 shows the extent of CCTV cameras in business establishments on the three sub-constructs "Visibility, Functionality, and Coverage and Placement," and the results reveal that all measurements are highly rated with means of 3.69 for Visibility, 3.63 for Functionality, and 3.64 for Coverage and Placement. As per the scale used in this study, these results fall within the range of very evident to very highly motivated, signifying a high perception among respondents regarding the presence of CCTV. The maximum mean scores for Visibility (3.69) indicate that many establishments have surveillance systems very obvious and have a great play in deterrent criminal activities merely by their presence. Since standard deviations are low (in the range of 0.07 to 0.08), they show a lot of

agreement among respondents which means they observe that CCTV is installed in various locations.

Results for Functionality, Coverage, and Placement were similarly high, indicating a perception from the respondents that the systems in use are functioning and are installed in a way that allows for maximizing monitoring capability. Such a finding would mean that the business establishments are not just putting money into surveillance technology, but rather that they are doing so thoughtfully, ensuring the cameras are placed correctly in key areas such as entrances, exits, and transaction points and are in good working condition (Fonseca, 2023). Collectively, these results give credence to the idea that surveillance is viewed importantly, and the possible premise is that businesses recognize CCTV not only as means of recording incidents but also visibly deterring crime (Ashiyana, 2022). Such observation helps prove that good CCTV deployment plays a vital role in the safety perception and crime prevention in favor of commercial premises (Eran &Hasranizam, 2024).

The results discovered in Table 3 regarding the high visibility, functionality, and strategic placement of CCTV cameras in business places are in support of many of the prevailing studies anteriores on the issue of surveillance technology and how such might play a role when enhancing perceived security and crime prevention. Prenzler (2024) within their meta-analysis on the effectiveness of CCTV indicated that very visible, well-maintained CCTV systems are important deterrents to crime, especially in commercial and public places. They emphasized that potential offenders were often discouraged just by the presence of cameras, especially near locations having heavy pedestrian traffic or valuable assets (Papale, 2024). These results, indeed, support the current result whereby visibility

had the highest rating in that business owners place cameras where most likely deterrence will be maximized and where they'll be very visible to the public and potential wrongdoers (Gómez et al., 2021).

CCTV use in retail environments was further studied in Al-Ansari & Al-Khafaji (2024) research, where they found appropriate function and placement to be key determinants of the effectiveness of surveillance systems. The study showed that CCTV cameras that covered poorly or were mostly not working had little effect on reducing crime or instilling public confidence. On the other hand, the study did confirm the verification of systems that were working well, properly maintained, and well-placed in reducing incidences of theft, vandalism, and improving the behavior of employees (Simukonda & Kamwela, 2021). The mentioned findings corroborate the observation of our current study in that businesses don't just install CCTV systems; they also consider functionality and coverage. This infers a degree of enlightenment among businesses to consider not just having surveillance but ensuring that it is put to the best use in enhancing both actual and perceived safety (Cao et al., 2021).

This very evidently indicates that CCTV cameras are a common sight in business establishments in terms of visibility, functionality, and coverage place (Liu & Han, 2020). Businesses are investing increasingly in surveillance as part of more proactive security measures. This strategic implementation would not only go far in increasing deterrents on the side of potential criminal activity, but also goes a long way in entrenching a feeling of increased safety among customers, employees, and business owners (Kennedy & Coelho, 2022). The implication is that their investment in effective or, when visible, any publicly available arrangements in CCTV session technologies contributes positively to both actual

crime prevention and the perception among the public of a secure environment. These findings are of critical importance to policy and local governments in supporting the building of such infrastructures as part of the broader framework of community safety (Thomas et al., 2022).

Table 3. Level of CCTV camera presence in business establishments in terms of:
N= 120

Sub-construct	Presence of CCTV Cameras		
	<i>Mean</i>	<i>SD</i>	Remark
Visibility	3.69	0.08	Very High Perception of Safety
Functionality	3.63	0.07	Very High Perception of Safety
Coverage and Placement	3.64	0.07	Very High Perception of Safety

Notes: 3.28-4.00 (Very High Perception of Safety); 2.52-3.27 (High Perception of Safety); 1.76-2.51 (Low Perception of Safety); 1.00-1.75 (Very Low Perception of Safety)

Test of significant relationship between the presence of CCTV cameras and perceived safety in business establishments

CCTV cameras are a relationship with the perception of safety within business establishments, showing the function technological devices have in one's perception of how secure one's space is (Socha & Kogut, 2020). CCTV cameras take a role not only as deterrents for future actions of criminals when they are visible, functional as well as strategically positioned but as part of psychological reassurance for customers, employees, and owners of the business (Baffour Adumata, 2025). The humid environment creates trust and a sense of safety measures taken. Therefore, it reads as greater effectiveness and coverage of CCTV in the space; the more perceived that people feel safe in there (Mak &

Jim, 2022). Thus, improvement in the presence and quality of surveillance systems can be the best strategy for local governments and things of the sort to increase the public's confidence as well as alleviate anxieties over crimes in a specific commercial area. Table 4 shows the test of a significant relationship between the presence of closed-circuit televisions and perceived safety in business establishments.

Table 4 depicts the results of the test of significance between CCTV camera presence and perceived safety within the business establishments. The coefficient correlation value (r) of 0.31 suggests a weak positive relationship between the two variables. This indicates that the presence of CCTV cameras may bring about a mere slight improvement in perceived safety among people regarding the establishments. Conversely, the accompanying p -value of 0.28 exceeds the conventional significance level of 0.05, indicating that this putative relationship is not statistically significant. Henceforth, as far as analyzed data is concerned, there is not sufficient evidence with which to firmly state that the presence of CCTV cameras has a concrete effect on the perceived safety of business environments.

The situation where the results were not statistically significant may be attributed to various reasons, like the small sample size or wide variation in the subjects' perception (Lakens, 2022). The positive direction of the relationship appears to be congruent with theoretical predictions about surveillance possibly deepening feelings of security (Vansteenkiste et al., 2020). However, the current data do not lend strong support to the link. As such, more research with larger sample sizes and more comprehensive data collection is required to understand better how the interactions between security measures, surveillance, and perceptions of safety operate (Ardabili et al., 2024). Businessmen and

policymakers should interpret these results cautiously with the insight that installing CCTV cameras alone will not significantly alter public perceptions on safety without additional security strategies.

Various past studies have mentioned such findings of weak and statistically non-significant relationships between the presence of CCTV cameras and perceived safety, as have been found in this study (Seifi et al., 2023). For instance, Kirui, G. (2024), "CCTV may contribute to reducing crime in some environments, but the evidence on the direct effect on feelings of safety is often scant or inconclusive." Their findings would suggest that conditions such as lighting, police presence, and community involvement are more important factors in shaping an individual's perception of safety than the surveillance technology (Ardabili et al., 2024). In many respects, Gurinskaya (2020) has highlighted the fact that the effectiveness of CCTV in enhancing perceived safety varies from place to place, with most individuals finding CCTV neutral or cynical in its actually deterring crime or making them feel safer.

In addition, other researchers indicated that seeing tangible complements in security conditions beside close circuit television CCTVs impacts perceived safety (Baffour Adumata, 2025). Studies of Mutahi et al. (2024); Louis (2024) argued that surveillance would work better with visible security personnel or active community policing-enhanced reassurance for the general public as well as deterrents to criminal behavior. These findings are in line with results of the current study, where showing CCTV cameras in business establishments may not sufficiently show to customers or staff much-perceived safety (Mitchev & Nuangjamnong, 2021). Altogether, such a literature mentions

that public safety would be improved through the incorporation of technology within social and environmental design elements (Vogiatzaki, 2020).

The results of this study can be further interpreted through the lenses of Routine Activity Theory, Crime Prevention Through Environmental Design, and Defensible Space Theory, which help explain the weak and statistically non-significant relationship between CCTV presence and perceived safety. From the perspective of Routine Activity Theory, CCTV cameras contribute to capable guardianship by increasing surveillance; however, the weak correlation ($r = 0.31$) suggests that surveillance alone may not be sufficient to strongly influence individuals' perception of safety, particularly when other elements such as social presence and environmental context are limited (Socha & Kogut, 2020; Vansteenkiste et al., 2020). Similarly, CPTED emphasizes that safety perception is shaped not only by surveillance technologies but also by integrated environmental factors such as lighting, maintenance, and human activity (Ardabili et al., 2024; Lim et al., 2020). The findings align with previous studies indicating that CCTV is more effective when combined with visible security personnel and community-based strategies, which enhance both actual and perceived safety (Mutahi et al., 2024; Louis, 2024; Baffour Adumata, 2025).

Furthermore, Defensible Space Theory explains that feelings of safety are influenced by territoriality, visibility, and user control over space; thus, CCTV may have limited impact if not supported by clear environmental cues and active social interaction (Gurinskaya, 2020; Mitchev & Nuangjamnong, 2021). The non-significant result ($p = 0.28$) therefore reinforces the theoretical position that perceived safety is a multidimensional

construct influenced by a combination of surveillance, environmental design, and social factors rather than by CCTV presence alone (Vogiatzaki, 2020; Hu et al., 2021).

Therefore, one important implication for professionals in safety management is that installing CCTV cameras might not give the customers and employees a sufficiently enhanced feeling of safety (Badiora et al., 2020). Different approaches are necessary, other than the expectation that CCTV technology will improve safety (Vogiatzaki et al., 2020). Environmental design improvements, some presence of visible security people, and community involvement in a variety of more proactive crime prevention strategies are just some of the suggested other security measures (Lim et al., 2020).

Safeguards and other relevant parties must exercise caution in considering a solution that focuses on CCTV as a sole solution to the insecurity problem, instead viewing the implementation of other integrated measures that solve not only the issue of real crime reduction, but also in building public confidence in safety. At the end of the day, building a complete understanding of perceived safety is important for putting into place effective security policies that could improve security in real business settings (Hu et al., 2021).

Table 4. Test of significant relationship between the presence of CCTV cameras and perceived safety in business establishments.

Variables	<i>r</i> value	<i>p</i> value	Remark
Presence of CCTV Cameras and Perceived Safety	0.31	0.28	Not Significant

*Note: * $p < 0.05$ (significant); ** $p < 0.01$ (highly significant)*

Test of significant relationship between the presence of CCTV cameras and perceived crime deterrence in business establishments

The report on the analysis of the existence or absence of any significant association between CCTV cameras and perceived crime deterrent arrangements in business establishments has important implications for understanding how surveillance technology affects public perception of safety. While the use of CCTV cameras is widely promoted as a tool to dissuade criminal activity, it is found that the strength as well as significance of its contribution to perceived crime deterrent varies among individuals (Dogbatse, 2020). A positive association would indicate that, on the occurrence of cameras, customers are more assured that crime is less likely to happen and so will encourage the safer business environment (Iqbal & Nazir, 2025).

However, in the case where the relationship is weak or does not have a significant statistical association, it is likely that such factors as visibility of security personnel, community policing efforts, or sufficient environmental design play a much bigger role in impression formation concerning crime deterrence effects. This highlights a need for an all-inclusive comprehensive security strategy, of which CCTV would be but a part of the wider framework in effective crime deterrence and felt security within commercial premises (Odhiambo, 2021). Table 5 The test of significant relationship between the presence of CCTV cameras and perceived crime deterrence in business establishments.

The presence of CCTV cameras and their crime deterrence perception in business establishments represent the significant relationship tested, as given in Table 5. A value of correlation coefficient (r) of 0.98 indicates an exceptionally strong positive relationship between the two variables. The inference is made that such a relationship exists between CCTV camera installation and the perception of crime being effectively deterred in

business settings. This finding corresponds to the general expectation that surveillance technology serves as a deterrent to criminal acts, which creates a safer ambiance for customers and employees. The p-value of 0.1, though slightly over the conventional 0.05 mark for rejection of the null hypothesis, signifies contextual or sample size considerations during the analysis, which might have assumed significance in this regard.

This strong correlation has important implications for business owners and security planners trying to enhance safety and reduce crime (Oyebambi, 2024). Results indicate that CCTV cameras may have a large influence in shaping the public's perception of crime deterrence, increasing patronage, and employee confidence in the establishment's security systems (Cave, 2022). Yet the relatively high p-value implies that one must be cautious about generalizing these findings, especially considering the likely small sample size or specific characteristics of the study context. Future studies with larger and more heterogeneous samples would be beneficial to validate and extend these findings. Nevertheless, this evidence supports the strategic employment of CCTV cameras as a core element in a holistic crime prevention strategy in business establishments (Douglas & Welsh, 2020).

The relationship between the presence of CCTV cameras and perceived deterrence from crime suggests that install one camera such that it is observable from the other one. In downtown areas, Baffour Adumata (2025), corroborating previous research, generally observed that installations of CCTV engender public confidence that either prevention or detection of crime will follow, hence consolidating the sense of security among the public. Likewise, Kirui, G. (2024) noted that overt surveillance via CCTV cameras sometimes serves as a psychological deterrent, whereby potential offenders are dissuaded through an

increased perception of being caught. These studies indicate that these media are crucial in detecting crime and in creating an image of safety and deterrence for which the public recognizes, hence correlating well with the information presented in Table 5 (Chaparro et al., 2021; Zhang, 2025).

In addition to this, Papale (2024) have found that CCTV usually enhances the perception of deterrent effects less by itself and more when combined with other visible security measures, such as patrols or signs indicating surveillance. This integrated approach further reinforces the perception that the environment is under surveillance and thus provides further justification for criminal deterrence (Ahmed et al., 2025). Thus, the interpretation of the present findings is in the same vein, with CCTV having a direct perception-altering effect on crime deterrence in business establishments. Taken together, these studies offer credibility to the argument that CCTV cameras can significantly contribute to crime prevention strategies not only in terms of crime detection but also helping to enhance public confidence in other security measures (Yeganegi et al., 2020).

The findings of this study can be further explained through the integration of Routine Activity Theory, Crime Prevention Through Environmental Design, and Defensible Space Theory, which collectively support the observed relationship between CCTV presence and perceived crime deterrence. The exceptionally strong correlation ($r = 0.98$) indicates that CCTV cameras function as capable guardians, increasing surveillance and reducing opportunities for crime, consistent with Routine Activity Theory (Lee et al., 2022; Al-Ghiyadh & Al-Khafaji, 2021; Townsley, 2024). This aligns with empirical findings that visible surveillance enhances public confidence and discourages potential offenders by increasing the perceived likelihood of detection (Kirui, 2024; Chaparro et al.,

2021; Zhang, 2025). At the same time, CPTED principles reinforce this effect by emphasizing natural surveillance, environmental design, and the strategic placement of security features such as cameras and lighting, which improve both actual and perceived safety (Lee et al., 2023; Songole, 2024; Kong et al., 2024; Senna et al., 2025). Furthermore, Defensible Space Theory explains how visible CCTV systems contribute to territorial reinforcement and psychological assurance, making users feel more secure and in control of their environment (Mara & Cutini, 2024; Gooren, 2023; Mshelia et al., 2024).

However, the relatively high p-value suggests that CCTV alone may not fully determine perceptions of deterrence, supporting the view that integrated strategies—such as combining surveillance with security personnel, community engagement, and environmental improvements—are more effective in shaping safety perceptions (Papale, 2024; Ahmed et al., 2025; Odhiambo, 2021). This reinforces the theoretical position that crime prevention and perceived safety are best achieved through a comprehensive, multi-layered approach.

This has a strong and significant association between the presence of CCTV cameras on the perceived crime deterrent benefits within business establishments showing their practical advantage as part of security technology to be incorporated into broader security strategy use. This does suggest that CCTV systems can be deployed by business owners and security managers as activity monitoring devices, as well as visibly signalling to potential offenders that their actions are being watched, thus lessening the chances of criminal behavior (Bagalanon et al., 2024). Further spending on CCTV may even build more assurance for customers and employees, thus creating a safe and welcoming environment that is good for business. However, although CCTV becomes powerful

instruments of deterrence, what should go hand in glove with these are additional security measures, such as patrol, efficient lighting, and community engagement, for maximum effectiveness against crime prevention as well in the public impression of safety (Papale, P. 2024).

Table 5. Test of significant relationship between the presence of CCTV cameras and perceived crime deterrence in business establishments

Variables	<i>r</i> value	<i>p</i> value	Remark
Presence of CCTV Cameras and Perceived Crime Deterrence	0.98	0.1	Significant

*Note: * $p < 0.05$ (significant); ** $p < 0.01$ (highly significant)*

CONCLUSION AND RECOMMENDATION

Claim of such research work is to highlight that the visibility, functioning and positioning of the CCTVs in an establishment of business is an indication of interest in surveillance as a deterrent measure. The established relationship between the presence of CCTV camera and the perceived deterrent effect in crime shows a significant positive relationship signifying that cameras actually deter criminal activity. Further, such effect on perceived safety, among such states, does not support the notion that even if CCTV systems prevent actual crime and increase public confidence in punishment, this prevention should not be expected to increase the feeling of safety significantly among individuals within business environments. Proving effectiveness of CCTV depends more on cohabitation with other instrument and environmental factors of safety than mere deployment of cameras.

Business owners along with security planners must invest on an ongoing basis in the high quality of well-maintained, well-placed CCTV installation as an essential complement to crime prevention. However, you will have to adopt undoubtedly a much-extensive security system with the necessary visible security personnel, decent lighting, participation of the community, and environmental design approaches to safety perception enhancement. Policymakers and stakeholders would greatly benefit from this in supporting such integrative initiatives between surveillance technology and active policing and public safety programs of the recognition that CCTV alone has limited potential in addressing safety perceptions. Future research with more extensive samples should further investigate the interrelationship between surveillance and other facility security measures in creating both actual and perceived safety in commercial environments.

DECLARATION OF THE USE OF AI TOOLS

I acknowledge the use of Grammarly in assisting me to review the spelling, grammar, spacing and sentence construction in my whole paper during the final stage of writing. I used the following prompt: "Suggest ways to improve the flow of words, clarity and concision. Provide suggestions with examples."

I used the output to correct the grammar and sentences, and revised the writing to improve my whole paper.

I acknowledge the use of ChatGPT [<https://chat.openai.com/>] to help the constructs of the schematic diagram subconstructs of my study.

I entered the following prompt: "Identify the possible sub-constructs of my variables."

I used the output as a starting point for generating ideas in my schematic diagram.

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APPENDIX A

SURVEY QUESTIONNAIRE

Questionnaire on Perceived Safety

Direction: Following are a set of statements that measure employee motivation, such as internal and extrinsic motivation, achievement and career development. Based on your own experiences, kindly rate the following statements by placing (✓) against the provided scale:

4 – Strongly Agree 3 – Moderately Agree 2 – Slightly Disagree 1 – Strongly Disagree

Statement	4	3	2	1
A. Personal Security				
1. I feel safer when CCTV cameras are installed in business establishments.				
2. I believe that CCTV cameras can help prevent crimes in public places.				
3. I am more confident to stay longer in a business when I know it is monitored by CCTV.				
4. CCTV presence makes me feel protected while shopping or working.				
5. I feel a sense of security knowing someone may be monitoring the CCTV footage.				
B. Fear Reduction				
1. CCTV cameras reduce my fear of becoming a victim of crime in business areas.				
2. I feel less anxious in establishments with visible surveillance cameras.				
3. My fear of theft or violence decreases when I see CCTV in operation.				
4. I feel more relaxed in CCTV-monitored places compared to those without.				
5. I think CCTV reduces fear even if no actual crime is occurring.				
C. Awareness of Surveillance				
1. I am aware that my actions are being recorded in CCTV-equipped areas.				
2. I consciously behave better knowing CCTV is present.				
3. I believe people change their behavior when they know they are being watched.				
4. CCTV makes me more cautious with my belongings.				
5. I believe awareness of surveillance leads to a safer environment.				

Breva, A. V. (2024). Police visibility and public perceptions towards an enhanced policy on police patrol. *International Journal of Research Studies in Education*, 13(18), 25-39.
<https://doi.org/10.5861/ijrse.2024.24140>

Questionnaire on Perceived Crime Deterrence

Direction: Given below are the statements about job satisfaction, which cover nature of work and work environment. Kindly measure your level of satisfaction by checking (✓) on the scale provided:

4 – Strongly Agree 3 – Moderately Agree 2 – Slightly Disagree 1 – Strongly Disagree

Statement	4	3	2	1
A. Reporting Rates				
1. CCTV footage helps encourage people to report crimes.				
2. I would feel more confident reporting an incident if I knew it was recorded on CCTV.				
3. Businesses with CCTV make it easier for authorities to investigate incidents.				
4. I believe more people are willing to report crimes when CCTV evidence is available.				
5. CCTV increases trust in reporting procedures.				
B. Reduction in Theft or Burglary				
1. I believe CCTV reduces shoplifting and internal theft.				
2. Establishments with CCTV are less likely to experience burglary.				
3. Thieves are discouraged by visible CCTV cameras.				
4. CCTV lowers the likelihood of repeat offenses.				
5. I believe the presence of cameras can stop a crime from happening.				
C. Lower Property Damage				
1. CCTV reduces vandalism in business areas.				
2. People are less likely to damage property when cameras are watching.				
3. CCTV helps catch those responsible for property damage.				
4. Business owners can use CCTV to prevent costly repairs from damage.				
5. I feel the risk of property destruction is lower in CCTV-monitored spaces.				

Circo, G., McGarrell, E. Estimating the impact of an integrated CCTV program on crime. J Exp Criminol 17, 129–150 (2021). <https://doi.org/10.1007/s11292-019-09404-y>

Questionnaire on Presence of CCTV Camera

Directions: Below are statements measuring the supervisor support, recognition and reward, training and development opportunities, workplace resources and equipment. Rate your agreement by marking (✓) on the provided scale:

4 – Strongly Agree 3 – Moderately Agree 2 – Slightly Disagree 1 – Strongly Disagree

Statement	4	3	2	1
A. Visibility				
1. CCTV cameras are easy to spot in most business establishments I visit.				
2. Clear signage about CCTV use is visible in many places.				
3. I notice cameras more in stores that value safety.				
4. Visible cameras make me feel more secure.				
5. I believe visible CCTV acts as a warning to wrongdoers.				
B. Functionality				
1. I trust that most business CCTV systems are working properly.				
2. Many CCTV cameras are actively recording at all times.				
3. Staff in businesses seem aware of how to operate CCTV systems.				
4. I believe most surveillance systems are reviewed regularly.				
5. Properly working cameras help solve crimes quickly.				
C. Coverage and Placement				
1. Cameras are positioned in high-risk areas like entrances and exits.				
2. Most business areas I visit are fully covered by surveillance.				
3. Blind spots are minimized in well-monitored establishments.				
4. CCTV placement makes it hard for criminal acts to go unnoticed.				
5. I believe CCTV cameras are placed strategically to maximize security.				

Jung, Y., Wheeler, A.P. The effect of public surveillance cameras on crime clearance rates. *J Exp Criminol* 19, 143–164 (2023). <https://doi.org/10.1007/s11292-021-09477-8>

APPENDIX B

SAMPLE OF FILLED OUT QUESTIONNAIRE

Appendix A

Questionnaire on Perceived Safety

Direction: Following are a set of statements that measure employee motivation, such as internal and extrinsic motivation, achievement and career development. Based on your own experiences, kindly rate the following statements by placing (✓) against the provided scale:

	4 – Strongly Agree	3 – Moderately Agree	2 – Slightly Disagree	1 – Strongly Disagree
Statement	4	3	2	1
A. Personal Security				
1. I feel safer when CCTV cameras are installed in business establishments. (Casella, R. 2023)		✓		
2. I believe that CCTV cameras can help prevent crimes in public places. (Philpot et al., 2020)		✓		
3. I am more confident to stay longer in a business when I know it is monitored by CCTV. (Stark et al., 2020)		✓		
4. CCTV presence makes me feel protected while shopping or working. (Elnahla & Neilson, 2021)		✓		
5. I feel a sense of security knowing someone may be monitoring the CCTV footage. (Heebels & van Aalst, 2020)		✓		
B. Fear Reduction				
1. CCTV cameras reduce my fear of becoming a victim of crime in business areas. (Circo & McGarrell, 2021)		✓		
2. I feel less anxious in establishments with visible surveillance cameras. (Akter et al., 2020)		✓		
3. My fear of theft or violence decreases when I see CCTV in operation. (Ceccato, V. 2020)		✓		
4. I feel more relaxed in CCTV-monitored places compared to those without. (Prestjan Fogelberg, F. 2025)		✓		
5. I think CCTV reduces fear even if no actual crime is occurring. (McClanahan et al., 2024)		✓		
C. Awareness of Surveillance				
1. I am aware that my actions are being recorded in CCTV-equipped areas. (Bagalanon et al., 2024)	✓			
2. I consciously behave better knowing CCTV is present. (Philpot et al., 2020)	✓			
3. I believe people change their behavior when they know they are being watched. (Karizat et al., 2021)	✓			
4. CCTV makes me more cautious with my belongings. (Brands et al., 2020)	✓			
5. I believe awareness of surveillance leads to a safer environment. (Ardabili et al., 2024)		✓		

Appendix B

Questionnaire on Perceived Crime Deterrence

Direction: Given below are the statements about job satisfaction, which cover nature of work and work environment. Kindly measure your level of satisfaction by checking (✓) on the scale provided:

4 – Strongly Agree 3 – Moderately Agree 2 – Slightly Disagree 1 – Strongly Disagree

Statement	4	3	2	1
A. Reporting Rates				
1. CCTV footage helps encourage people to report crimes. (Philpot et al., 2020)	✓			
2. I would feel more confident reporting an incident if I knew it was recorded on CCTV. (Philpot et al., 2020)	✓			
3. Businesses with CCTV make it easier for authorities to investigate incidents. (Kirui, G. 2024)	✓			
4. I believe more people are willing to report crimes when CCTV evidence is available. (Gurinskaya, A. 2020)	✓			
5. CCTV increases trust in reporting procedures. (Brands & van Doorn, 2020)	✓			
B. Reduction in Theft or Burglary				
1. I believe CCTV reduces shoplifting and internal theft. (Özaşçılar, M. 2022)		✓		
2. Establishments with CCTV are less likely to experience burglary. (Gerell, M. 2021)		✓		
3. Thieves are discouraged by visible CCTV cameras. (Gupta & Margam, 2021)		✓		
4. CCTV lowers the likelihood of repeat offenses. (Wheeler et al., 2021)		✓		
5. I believe the presence of cameras can stop a crime from happening. (Robin et al., 2021)			✓	
C. Lower Property Damage				
1. CCTV reduces vandalism in business areas. (Arthur-Aidoo et al., 2023)		✓		
2. People are less likely to damage property when cameras are watching. (Ahmad et al., 2020)		✓		
3. CCTV helps catch those responsible for property damage. (Sunstein, C. R. 2023)	✓			
4. Business owners can use CCTV to prevent costly repairs from damage. (Yeganegi et al., 2020)	✓			
5. I feel the risk of property destruction is lower in CCTV-monitored spaces. (Prestjan Fogelberg, F. 2025)		✓		

Appendix C

Questionnaire on Presence of CCTV Camera

Directions: Below are statements measuring the supervisor support, recognition and reward, training and development opportunities, workplace resources and equipment. Rate your agreement by marking (✓) on the provided scale:

4 – Strongly Agree 3 – Moderately Agree 2 – Slightly Disagree 1 – Strongly Disagree

Statement	4	3	2	1
A. Visibility				
1. CCTV cameras are easy to spot in most business establishments I visit. (Yeganegi et al., 2020)	✓			
2. Clear signage about CCTV use is visible in many places. (Davies et al., 2022)		✓		
3. I notice cameras more in stores that value safety. (Akter et al., 2020)	✓			
4. Visible cameras make me feel more secure. (Svanström et al., 2021)	✓			
5. I believe visible CCTV acts as a warning to wrongdoers. (Bock, M. A. 2021)	✓			
B. Functionality				
1. I trust that most business CCTV systems are working properly. (Brands & van Doorn, 2020)	✓			
2. Many CCTV cameras are actively recording at all times. (Ali et al., 2022)	✓			
3. Staff in businesses seem aware of how to operate CCTV systems. (Gupta & Margam, 2021)	✓			
4. I believe most surveillance systems are reviewed regularly. (Leclerc et al., 2020)	✓			
5. Properly working cameras help solve crimes quickly. (Mukto et al., 2024)	✓			
C. Coverage and Placement				
1. Cameras are positioned in high-risk areas like entrances and exits. (Shirowzhan et al., 2020)	✓			
2. Most business areas I visit are fully covered by surveillance. (Kerzner, H. 2023)	✓			
3. Blind spots are minimized in well-monitored establishments. (Lietaer et al., 2021)	✓			
4. CCTV placement makes it hard for criminal acts to go unnoticed. (Papale, P. 2024)	✓			
5. I believe CCTV cameras are placed strategically to maximize security. (Yeganegi et al., 2020)	✓			

APPENDIX C

SAMPLE COMPUTATION

APPENDIX A JOSEPH ALEXANDER PROBABILIA

	4	3	2	1
A.				
1.	$III - III - III = 18$	$III - III - I = 11$	$II = 2$	
2.	$III - III - III - I = 12$	$III - III - I = 12$	$II = 2$	
3.	$III - III - III - I = 12$	$III - III - I = 12$	$II = 2$	
4.	$III - III - III = 13$	$III - III - I = 16$	$II = 2$	
5.	$III - III - I = 12$	$III - III - I = 15$	$III = 4$	
B.				
1.	$III - III - III = 13$	$III - III - I = 16$	$II = 2$	
2.	$III - III = 10$	$III - III - III - I = 19$	$II = 2$	
3.	$III - III - III = 13$	$III - III - I = 16$	$II = 2$	
4.	$III - III - I = 12$	$III - III - III - I = 17$	$II = 2$	
5.	$III - III = 9$	$III - III - III - I = 20$	$II = 2$	
C.				
1.	$III - III - III - III - III - III = 29$	$II = 2$		
2.	$III - III - III - III - III - III = 29$	$II = 2$		
3.	$III - III - III - III - III - III = 29$	$II = 2$		
4.	$III - III - III - III - III - III = 22$	$III = 4$		
5.	$III - III - III - III - III - III = 28$	$III = 3$		

APPENDIX B

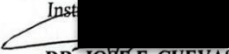
	4	3	2	1
A.				
1.	$III - III - III - III - III - III = 27$	$II = 2$		
2.	$III - III - III - III - III - III = 20$	$II = 1$		
3.	$III - III - III - III - III - III = 27$			
4.	$III - III - III - III - III - III = 28$	$III = 3$		
5.	$III - III - III - III - III - III = 27$	$II = 2$		
B.				
1.	$III - III - III = 14$	$III - III - III = 15$	$II = 2$	
2.	$III - III - III = 14$	$III - III - I = 12$	$III = 5$	
3.	$III - III - I = 11$	$III - III - III - III = 19$	$I = 1$	
4.	$III - III - III - I = 12$	$III - III - III - I = 16$	$III = 3$	
5.	$III - III - III = 12$	$III - III - III = 13$	$III = 4$	$II = 2$
C.				
1.	$III - III = 18$	$III - III - III - I = 13$	$II = 2$	$II = 2$
2.	$III - III - I = 12$	$III - III - III - I = 12$	$II = 2$	
3.	$III - III - III - III - I = 20$	$III = 5$		
4.	$III - III - III - III = 18$	$III - III - I = 12$	$I = 1$	
5.	$III - III - III = 13$	$III - III - III = 14$	$III = 4$	

APPENDIX C

	4	3	2	1
A.				
1.	$III - III - III - III - III - III = 27$	$III = 4$	$III = 3$	
2.	$III - III - III - III - III - III = 23$	$III = 5$	$I = 1$	
3.	$III - III - III - III - III - III = 25$	$III = 6$	$III = 3$	
4.	$III - III - III - III - III - III = 22$	$III - I = 6$		
5.	$III - III - III - III - III - III = 28$	$III = 3$		
B.				
1.	$III - III - III - III = 18$	$III - III - I = 12$	$I = 1$	
2.	$III - III - III - III = 20$	$III - III - I = 11$	$I = 0$	
3.	$III - III - III - III = 18$	$III - III = 9$		
4.	$III - III - III - III - I = 22$	$III = 9$		
5.	$III - III - III - III - I = 28$	$III = 3$		
C.				
1.	$III - III - III - III - III = 23$	$III - III = 8$	$I = 1$	
2.	$III - III - III - III = 18$	$III - III - I = 12$	$I = 0$	
3.	$III - III - III - III = 19$	$III - III - I = 11$	$I = 0$	
4.	$III - III - III - III - I = 21$	$III - III = 9$	$I = 0$	
5.	$III - III - III - III - I = 28$	$III = 3$		

APPENDIX D

TRANSMITTAL LETTERS

	Misamis University Ozamiz City <i>College of Criminology</i>	
August 18, 2025 HON. ATTY. SAM NORMAN G. FUENTES City Mayor Ozamiz City Dear Mayor Fuentes; Greetings of Peace! As part of the requirements for our courses Criminological Research 1 & 2, we, the Bachelor of Science in Criminology students of Misamis University, Ozamiz City, are currently conducting our thesis study entitled "Perceptions of Safety and Crime Deterrence: The Impact of CCTV Cameras in Business Establishments." In this regard, we respectfully request permission from your good office to conduct a survey among the local police and business establishment owners in Ozamiz City. Rest assured that informed consent will be obtained from all respondents prior to the survey, and that all information gathered will be used solely for academic research purposes. Your favorable consideration of this request will greatly contribute to the success of our study and academic endeavors. Thank you, and may God bless you with continued wisdom and strength in your service. Respectfully yours,  CHRISTYL R. NANO Group leader Noted by:  DR. MARK Y. ORONG Inst  DR. JOSE F. CUEVAS JR. College Dean Approved by:  HON. ATTY. SAM NORMAN G. FUENTES City Mayor, Ozamiz City		
		OFFICE OF THE CITY MAYOR RECEIVED DATE: <u>8/20/25</u>



Republic of the Philippines
CITY ADMINISTRATOR'S OFFICE
City of Ozamiz



**ASENSO
OZAMIZ**

8 September 2025

JOSE F. CUEVAS JR. PhD

College Dean
College of Criminology
Misamis University
Ozamiz City

MARKDY Y. ORONG, DIT

Instructor
College of Criminology
Misamis University
Ozamiz City

Through: **CHRISTYL R. NANO**
JOSEPH ALEXANDER P. PAGHASIAN
SAMUEL C. COLANGO JR.
STEWART M. DITCHE
Researchers
+63 938 247 5167

Dear Sir:

With reference to your letter dated 19 August 2025 for the conduct of data gathering relevant to your thesis study entitled: "Perceptions of Safety and Crime Deterrence: The Impact of CCTV Cameras in Business Establishments" we would like to inform you that we are interposing no objection to the conduct of said research, provided the following conditions are complied with:

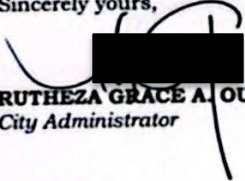
1. Submission of Questionnaires to the office of the undersigned prior to the conduct of the thesis study;
2. Submission of the outcome of the research study after its conduct to the Office of the undersigned.

Rest assured that all information submitted will be handled with utmost confidentiality.

Kanunay **Asenso Ozamiz!**

Thank you.

Sincerely yours,


RUTHEZA GRACE A. OUANO
City Administrator

Copy furnished:
Mayor's Office



Republic of the Philippines
CITY LEGAL OFFICE

CITY OF OZAMIZ

MOBILE NO.: 09303634427

EMAIL ADDRESS: asensoozamizcitylegal@gmail.com



DATA SHARING AGREEMENT

This Data Sharing Agreement is made and entered into by the Local Government Unit of Ozamiz City ("LGU Ozamiz") and the SECOND PARTY for the disclosure to the SECOND PARTY of personal information under the custody of LGU Ozamiz as a personal information controller.

I. PURPOSE

Educational purpose; data gathering for the thesis entitled "*Perceptions of Safety and Crime Deterrence: The Impact of CCTV Cameras in Business Establishments*"

II. SECOND PARTY

NAME(s):	ADDRESS:
Christyl R. Nano	P-2, Labo, Ozamiz City
Joseph Alexander P. Paghasian	P-1, Lam-an, Ozamiz City
Samuel C. Colango Jr.	Purok-Bonifacio, Bacolod, Ozamiz City
Steward M. Ditcher	P-4, Guba, Municipality of Clarin

SCHOOL/COMPANY:	ADDRESS:
Misamis University	H.T. Feliciano St., Aguada, Ozamiz City

III. EFFECTIVITY

MADE ON:	MADE AT:
EFFECTIVE ON:	EFFECTIVE UNTIL:

IV. DATA TO BE SHARED:

Post-activity report.

V. ACCESS TO DATA

A. METHOD OF ACCESS AND TRANSFER	Printed copies of the data needed are physically received by the SECOND PARTY										
B. PERSONS HAVING ACCESS TO THE DATA	<table border="1"><thead><tr><th>NAME:</th><th>CONTACT NO.:</th></tr></thead><tbody><tr><td>Christyl R. Nano</td><td>0938-247-5167</td></tr><tr><td>ADDRESS: P-2, Labo, Ozamiz City</td><td>EMAIL:</td></tr><tr><td>NAME:</td><td>CONTACT NO.:</td></tr><tr><td>ADDRESS:</td><td>EMAIL:</td></tr></tbody></table>	NAME:	CONTACT NO.:	Christyl R. Nano	0938-247-5167	ADDRESS: P-2, Labo, Ozamiz City	EMAIL:	NAME:	CONTACT NO.:	ADDRESS:	EMAIL:
NAME:	CONTACT NO.:										
Christyl R. Nano	0938-247-5167										
ADDRESS: P-2, Labo, Ozamiz City	EMAIL:										
NAME:	CONTACT NO.:										
ADDRESS:	EMAIL:										
C. FREQUENCY OF DATA	Once										

VI. DATA SECURITY

The SECOND PARTY shall implement reasonable and appropriate organizational, physical, and technical security measures for the protection of personal data that are subject to data sharing. Further, the SECOND PARTY shall ensure that the said measures will enable them to comply with the principles and guidelines provided in the Data Privacy Act of 2012, and its Implementing Rules and Regulations.

VII. NON-DISCLOSURE AGREEMENT

The SECOND PARTY agrees that any confidential, sensitive, or proprietary information, including the affairs, patents, operations, trade secrets, new product developments, special or unique processes or methods, or any other information which is not otherwise public, disclosed by the LGU shall be held in absolute trust and confidence and shall be used solely for the purpose(s) stated in Item I of this Agreement. After the accomplishment of the purposes of this Agreement all confidential information, including written notes, agreements, photographs, memoranda, drawings, specifications, designs, and other documents with confidential information shall be promptly returned to the LGU and/or destroyed and no copies or written documentation relating thereto shall be retained. These informations shall not be disclosed to any employee, consultant or third party unless the LGU agrees to the disclosure of the same in writing.

VIII. PRETERMINATION

The LGU reserves the right to pre-terminate this Agreement should it find the SECOND PARTY noncompliant with the provisions of this Agreement, the Data Privacy Act and its IRR, or any issuances of the National Privacy Commission.

IN WITNESS WHEREOF, we hereunto set our hands this 04 SEP 2025 day of SEP at Ozamiz City, Philippines.

CHRISTY R. NANO
Signature over printed name

Signature over printed name

Signature over printed name

Signature over printed name

SUBSCRIBED AND SWORN TO BEFORE ME THIS 04 SEP 2025 day of SEP in Ozamiz City, Philippines, affiant exhibiting to me his competent proof of identity above indicated and _____ the same person executing the foregoing Affidavit of _____

Doc. No. 108
Book No. 1
Page No. 1
Series of 2025.

ATTY. ROSA MARIA GUERRERO
Notary Public
For the City of Ozamiz and the Province
of Misamis Occidental
Until December 31, 2025
Notarial Commission No. 2023-08
PTR No. 5152936A-10/19/2023-Ozamiz City
TIN-160-182-056-000
Roll No. 2901A

APPENDIX E

RESEARCH DATA GATHERING APPROVAL FORM



Misamis University

Ozamiz City



MISAMIS UNIVERSITY RESEARCH CENTER

CERTIFIED: ISO 21001: 2018 Educational Organizations Management System by DNV
ACCREDITED: Philippine Association of Colleges and Universities Commission on Accreditation (PACUCOA)

MU-RC-042/13 November 2024

Thesis/Research Data Gathering Approval Form

Date: _____

Name of Authors: Samuel C. Colango Jr., Christyl R. Nango, Joseph Alexander P. Paghasian, Edward M. Ditcher
College/Department: College of Criminology
Research Title: Perceptions of Safety and Crime Deterrence: The Impact of CCTV Cameras in Business Establishments.

Data Gathering Procedure:

a. Type of Research: (Kindly check)

☒ Quantitative ☐ Qualitative ☐ Experimental
☐ Approved Research Title & Problem/Objectives ☐ Approved Data Gathering Procedure ☐ Approved Data Gathering Instrument/Data Sheets

b. Respondents/Participants/Subject/Samples to be Collected: _____

c. Procedure:

☒ Survey ☐ Interview ☐ Experimentation ☐ Laboratory Testing

d. Place of Implementation/Study Area: _____

If to be conducted outside the school campus, indicate the nature of transportation to be used:

☐ Own private vehicle ☒ public utility vehicle ☐ rental ☐ Others, please indicate _____

e. Date/s of Implementation/Sampling: _____

Attachments:

☐ Approved Letter of Consent from the designated authority in the area/place where the study is to be conducted
☐ Signed Parents' Consent

The thesis proposal mentioned above is hereby recommended for the commencement of data gathering implementation.

Recommended by:

TEOPISTO A. CULANANG JR.
Thesis/Research Adviser

MARKDY D. ORONG
Thesis/Research Instructor

Approved by:

JOSE P. CUEVAS JR.
College Dean

CONTROLLED DOCUMENT

APPENDIX F

INFORMED CONSENT



Misamis University
H. T. Feliciano St., Ozamiz City, 7200 Philippines
MISAMIS UNIVERSITY RESEARCH ETHICS BOARD
Phone: +6388 521 0367 | Fax: +6388 521 2917
Email: muresearchethics@mu.edu.ph

MU-REB-010/03 March 2022

INFORMED CONSENT FORM (PORMA SA NASABTAN NGA PAGTUGOT)

Name of the Researcher/Investigator

(Nagtuon): Christyl R. Nando, Joseph Alexander P. Paghasian, Samuel C. Tolango Jr., and Steward Ditchie

Course: Bachelor of Science in Criminology

College: College of Criminology - Misamis University

Email / Contact Number:

Thesis Title: "Safety and Crime Deterrence in Business Establishments with CCTV Cameras"

PART I. INFORMATION SHEET

Introduction (Pasiuna)	Good day! I am <u>Christyl R. Nando</u>, the principal researcher/investigator of the study entitled "<u>Safety and Crime Deterrence in Business Establishments with CCTV Cameras</u>." I am a graduate student under the program <u>Bachelor of Science in Criminology</u> at Misamis University in Ozamiz City. I am to conduct the research with _____ as participant. In this vein, I am respectfully seeking your voluntary participation, being qualified to give your informed consent to take part in this study. Before you decide whether to participate or not in this study, please read the succeeding information about the study and feel free to ask questions anytime should there be anything you do not understand or want to clarify. If you agree to answer the interview, you will be asked to affix your name and signature on this form for which you will be given a copy. (Maayong adlaw! Ako si <u>Christyl R. Nando</u>, ang nagpahigayon sa pagtuon kabahin sa "<u>Safety and Crime Deterrence in Business Establishments with CCTV Cameras</u>." Ako usa ka estudyante sa <u>Criminology</u> sa <u>Misamis University</u>. Ako nagapili kanimo isip participant nga maoy mutubag sa gikinahagnglang impormasyon niining gihimong pagtuon. Ako matinahurong naghango sa inyong bulontaryo nga pag-apil niini nga pagtuon. Gikinahanglan nga ikaw naa sa saktong edad ug naay kakayahan nga mohatag sa pagtugot aron makaapil niini nga pagtuon. Sa dili pa ka mohukom sa pag-apil niini nga interview, palihug sa pagbasa sa mga impormasyon sa ubos ug gawasnon ka nga makapangutana kon adunay wala nimo nasabtan o gusto nimong iklaro. Kung motugot ka sa pagahimoon nga interview, papirmahon ka niini nga porma ug tagaan usab ka ug imong kaugalingong kopya.
Purpose (Katuyoan)	The purpose of this study is to _____ This research _____ (Indicate the significance). (Ang katuyuan niini nga pagtuon mao ang _____ . Kini nga pagtuon makahatag og _____ (kaayuhan).
Type of Research Intervention (Matang sa Interbensyon sa Pagtuon)	This study will be conducted through interviews. The gathering of data will be conducted in person. (Kining pagtuon pagabuhaton pinaagi sa interview. Personal ang pagkuha sa datos.)
Selection of	The selection of the participants is based on the following inclusion



Misamis University
H. T. Feliciano St., Ozamiz City, 7200 Philippines
MISAMIS UNIVERSITY RESEARCH ETHICS BOARD
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Email: muresearchethics@mu.edu.ph

MU-REB-010/03 March 2022

Participants (Pagpili sa mga Partisipante)	criteria: _____, and _____ (Indicate as applicable to your study.) (Ang mga partisipante nilini nga pagtuon mao ang indibidwal nga naga-angkon sa mosunod: _____, _____, _____.)
Voluntary Participation (Boluntaryo nga Partisipasyon)	Your participation has to be voluntary and will not affect your situation or status in any way, including your relationship with the researcher. You are free to decide if you will take part or not. If you decide to participate, you are free not to answer any questions that you do not prefer to answer. (Boluntaryo ang imong pag-apil ug kini dili makaapekto sa imong sitwasyon o estado apil na imong relasyon sa nagtuon. Gawasnon ka nga modestasyon kung kung moapil ka niini nga pagtuon o dili. Kung mo-destasyon ka nga moapil, gawasnon ka nga dili motubag sa bisan asa nga pangutana nga dili nimo gusto nga tubagon.)
Procedure (Pamaagi)	The participants will be given ample time when to undertake the interview. The interviews will be undertaken once or several times when necessary. The researcher will transcribe the interviews to be used for the analysis of the data. The information and data provided by you as a participant will be utilized for this study alone and will be treated with the utmost confidentiality. (Ang mga partisipante pagahatagan og igong panahon sa pag-apil sa interview. Ang interview pwedeng himoon kausa nga higayon o sa makadaghan depende sa panginanghalanon. Isulat sa nagtuon ang interviews para sa pag-analisa sa datos. Ang mga impormasyon ug datos nga nakuha gikan kanimo isip ka partisipante gamiton lamang niining research og hatagan og tumang pag-amping nga dili mabutyag.)
Duration (Gidugayon)	The gathering of data through the interview will last for 45 minutes to 1 hour. (Ang pagkuha sa datos pinaagi sa interview mokabat ngadto sa _____.)
Risks and Discomforts (Risiko ug Kahasol)	The respondents will be protected from physical, social, or economic risks. In case the items in the survey instrument are too personal and make you feel uncomfortable, you may decline to answer any or all questions and may terminate your involvement at any time you choose. (Ang mga partisipante ginaprotektahan sa pisikal, sosyal o ekonomikanhong risiko. Kung pananglitan adunay mga pangutana nga personal ra kaayo o kung dili ka komportable, mamahimong dili ka motubag o mobalibad sa pagtubag sa bisan asa o sa tanang mga pangutana ug moatras sa pag-apil sa bisan unsang panahon nga imong gusto.)
Benefits (Kaayohan)	This study will enable you to shed light or provide understanding about _____. Thus, your responses shall be highly valued being deemed important in the field of _____. (Kini nga pagtuon makapahimo kanimo paghatag og katin-awan o pagpasabot kabahin sa _____. Ang imong mga tubag hatagan og dakong bili nga giisip nga importante sa linya sa _____.)
Reimbursements (Hulip nga bayad)	There will be no monetary expenses or costs on your part as a respondent, nor any monetary compensation for your participation in this study. However, personal protective equipment (PPE) like face masks, alcohol and face shields may be provided during the gathering of the research data.



Misamis University
H. T. Feliciano St., Ozamiz City, 7200 Philippines
MISAMIS UNIVERSITY RESEARCH ETHICS BOARD
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MU-REB-010-03 March 2022

	(Wala kay magasto sa imong pag-apil niini nga pagtuon ug dili usab ka bayaran ug kwarta sa imong pag-apil niini nga pagtuon. Apan adunay nga personal protective equipment (PPE) sama sa face masks, alcohol ug face shields nga pwede nga mahatag sa panahon sa pagkuha sa mga datos)
Confidentiality of Data (Pag-amping sa Datos)	Only the researcher will have access to the information and responses of the participants. The personal identifying information of the participants will only be used for research analysis and will be treated with the utmost confidentiality. During the study, all data will be kept in a locked, secure filing cabinet, of which will be discarded 6 months after the publication of the results. (Ang nagtuon lamang ang makakita sa mga impormasyon ug tubag sa respondents. Ang mga datos nga makuha i-analisa ug hatagan og tumang pag-amping aron dili ibutyag. Sa panahon sa pagtuon, ipahimutang sa usa ka selyadong filing cabinet ang tanang datos nga pagagub-on human sa 6 kabulan gikan sa pag-publish sa resulta.)
Sharing of Findings (Pagpaambit sa Nakaplagan)	The results of this study will be presented during the thesis/dissertation final defense of the researcher. Also, the research findings may be shared through publications and conferences with the assurance that the identities of the respondents will remain confidential. A printed copy of the completed study will be provided to the participants. (Ang mga resulta niini nga pagtuon ipresenta sa panahon sa final defense sa thesis/dissertation sa nagtuon. Ang mga nakaplagan sa pagtuon posible nga ipaambit pinaagi sa mga publications ug conferences nga adunay kapanigurohan nga dili mabutyag ang pagkatawo sa mga partisipante. Pagahatagan og isa ka giimprinta nga kopya sa kumpleto nga pagtuon ang mga partisipante.)
Rights to Refuse or Withdraw (Katungod sa Pagpalibabad o Pag-undang)	You are free to withdraw or terminate participation at any stage of the study, without the need to give any reason. You will not be penalized in case of termination of participation. (Gawasnon ka nga moatras or moundang sa pag-apil sa bisan asa nga punto sa pagtuon nga dili na magkinahanglan pa ug rason. Dili ka ipamulta sa pag-atras o pag-undang.)
Who to Contact (Kinsa ang Kontakon)	Should there be any queries as a parent, you can contact the researcher through the following details: (Kung adunay mga pangutana, mamhimo nga mokontak pinaagi aning mga detalye:) Name of the Researcher (Ngalan sa Nagtuon): <u>Christy R. Nando</u> Cellphone Number/s: <u>09352478167</u> e-mail ad: <u>nandochristy31@gmail.com</u>



Misamis University
H. T. Feliciano St., Ozamiz City, 7200 Philippines
MISAMIS UNIVERSITY RESEARCH ETHICS BOARD
Phone: +6388 521 0367 | Fax: +6388 521 2917
Email: muresearchethics@mu.edu.ph

MU-REB-010/03 March 2022

PART II. CERTIFICATE OF CONSENT

This research entitled "Safety and Health Declaration in Business Establishments" by Dr. IV (LMS) with the aim of gathering information and data pertaining to _____, has been presented and explained to me clearly. Since the study involves _____, I am chosen as one of the participants.

(Kini nga pagtuon gitulohan, "_____ "ni _____, nga adunay tumong sa pagkuha og impormasyon ug datos kabahin sa _____, gipresenta ug gipasabot og klaro kanako. Tungod kay ang pagtuon kay kabahin sa _____, ako napilian isip usa sa mga partisipante.)

I have read the foregoing Informed Consent Form, or it has been read to me. I had the opportunity to ask questions, which were subsequently answered fully. I consent voluntarily to be a participant of this study.

(Akong nabasa ang nauna nga Informed Consent Form, o gibasa kini kanako. Natagaan ako og higayon nga makapangutana nga natubag sa hingpit. Ako mosugot nga boluntaryo nga mahimong participant sa niining pagtuon.)

Print Name of Participant (Ngalan sa Partisipante): Jorge V. Solano

Signature of Participant (Pirma sa Partisipante): _____

Date: [MM/DD/YYYY] 10/14/2025

If Illiterate (Kung dili makasulat ug makabasa)

If the respondent is illiterate, a witness who is literate will sign. The respondent will choose him/ her and who is without connection with the researcher or the research group to attest this undertaking. The respondent will affix his thumb print.

[Kung ang participant kay dili makabasa o makasulat, mopirma ang usa ka makabasa ug makasulat nga testigo. Ang respondent ang mopili kaniya nga walay koneksyon sa nagtuon o sa iyang grupo para mopamatuod sa gimbuhaton. Ang respondent mobutang sa iyang tamla (thumb print)].

Name and Signature of the Witness
(Ngalan ug Firma sa Testigo)

Thumb mark

APPENDIX G

PARENTS CONSENT

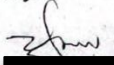
	MISAMIS UNIVERSITY Ozamiz City Department of Student Affairs & Services
MU-DSAS-006/02June2026	

PARENT'S CONSENT

College of Criminology
 Sponsoring Group/Organization

I am allowing my son/daughter/ward, Christyl R. Nando, to join
 the Research Data Gathering (activity) to be held on
April at Ozamiz City under the supervision of
Dr. Markdy Y. Orong (Adviser/Faculty).

I understand that Misamis University exercises the necessary safety precautions in this activity.
 In consideration of the benefits to be derived from the above activity, I expressly waive any and all
 claims against the administration or any member of the faculty and staff of the Misamis University on
 account of any unforeseen or injury that my son/daughter/ward might incur in connection with
 the aforementioned activity.


CHRISTYL R. NANDO
 Signature of Parent/Guardian

09-06-25
 Date


CHRISTYL R. NANDO
 Signature over printed name of Student

09-06-25
 Date

Important: This form shall be submitted to the DSAS Office at least two (2) days before the conduct of the activity.

SUBSCRIBED AND SWORN to before me this 06 day of MAY 2026 at Ozamiz City,
 Philippines, that the herein affiant person appeared with his/her _____, as evidence of
 his/her personal identity.

Doc. No. 985
 Page No. 17
 Book No. VII
 Series of 2026

ATTY. NEMAR JAY C. PITANIA, CPA
Notarial Commission No. 2023-04
 NOTARY PUBLIC in the Philippines
 Valid until 03/31/2026
 IBP No. INV 574632, Reg. 24, 2025, Min. Occ. Chapter
 Roll No. 85042, TIN 424-893-590
 MCLB Compliance No. VIII-0034023
 PTR No. 6007981, Jan. 01, 2026, Ozamiz City

Notary Public
 Until _____
 PTR No. _____
 IBP No. _____
 TIN No. _____
 Roll No. _____

(For DSAS Personnel only)

Attested by:

RODEL L. BALDADO, MHist, MAEd
 OIC, Department of Student Affairs & Services
 Date: _____

APPENDIX H

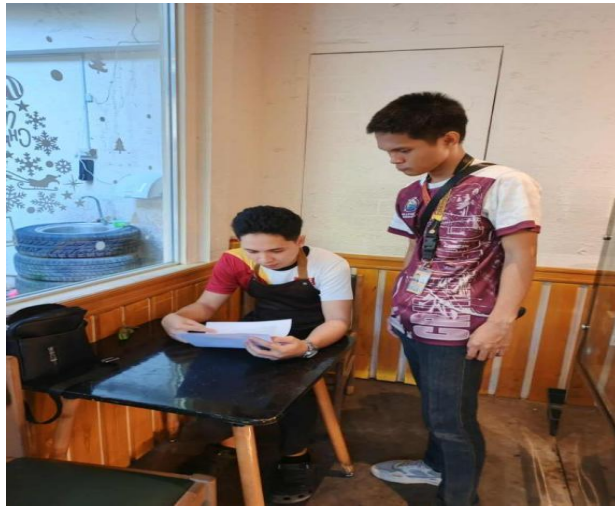
DOCUMENTATIONS



This photo shows one of our selected business establishments in a developing urban area of Misamis Occidental included in our study. Prior to conducting the research, we first approached the management and informed them about the purpose of our study. Consent was respectfully obtained before proceeding with any data collection. After gaining approval, we administered survey forms to gather information on their perceptions of CCTV and safety.



This image features another establishment equipped with CCTV systems that we choose to conduct our study. We initially introduced the study to the owner of the establishment and to the participants and clearly explained its objectives. After securing their voluntary consent, the participants agreed to take part in the research. Survey forms were then distributed to collect their insights on the role of CCTV in crime prevention and security.



This photo captures the actual data gathering process inside the establishment. Participants were first informed about the nature of the study and were asked for their consent before participation. Upon agreeing, they were given survey forms to answer based on their experiences and perceptions. This process ensured that the data collected was both ethical and relevant to the study's objectives.



This image shows our picture together with the participants after conducting the study within the establishment. Before the survey, the researchers explained the study and obtained consent from each participant. The respondents then completed the survey forms, sharing their views on CCTV and safety in the area. Their cooperation contributed significantly to understanding how surveillance systems influence perceptions of security and crime deterrence.

APPENDIX I

CERTIFICATE OF PUBLICATION



The Board of
International Journal of Research and
Innovation in Social Science
ISSN: 2454 -6186

Is hereby awarding this certificate to
CHRISTYL R. NANO

In recognition of the publication of the paper entitled
Perceptions Of Safety And Crime Deterrence: The Impact Of CCTV Cameras In Business Establishments

Published In IJRIS Online Journal

Page No. 6123-6136 Volume 9 Issue 11 Month November Year 2025

[Signature]
Chief Editor

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International Journal
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A Unit of Research and
Scientific Innovation Society
E-mail: ijriss@rsisinternational.org Visit us at www.rsisinternational.org



The Board of
International Journal of Research and
Innovation in Social Science
ISSN: 2454 -6186

Is hereby awarding this certificate to
JOSEPH ALEXANDER P. PAGHASIAN

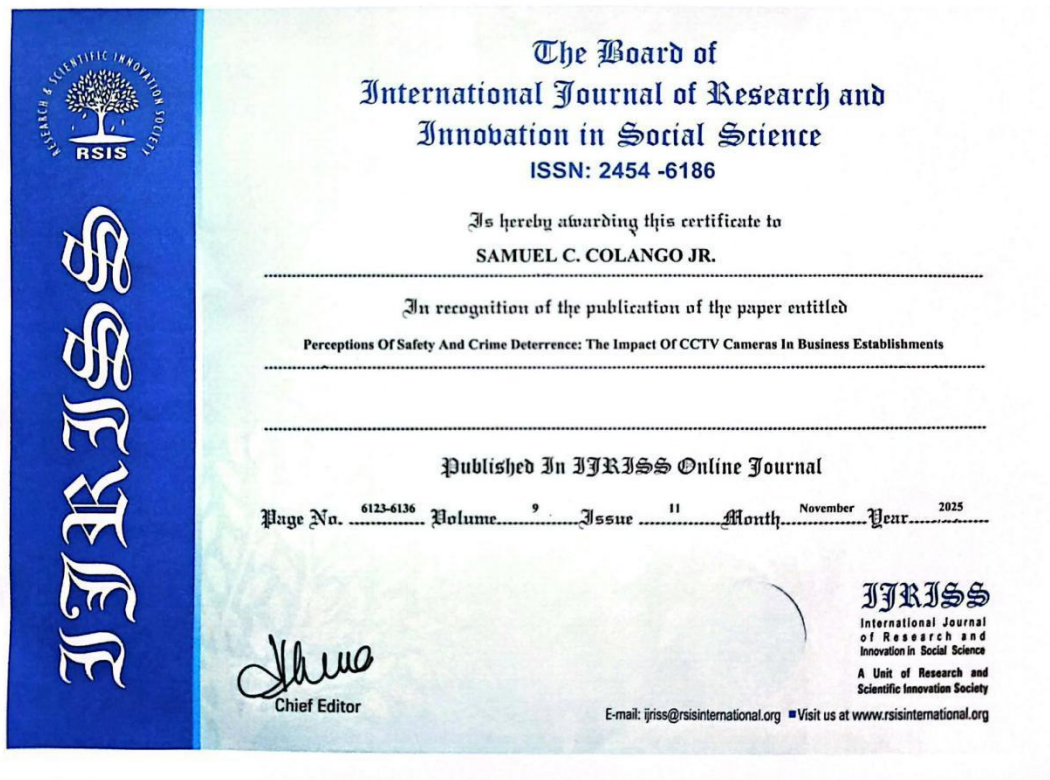
In recognition of the publication of the paper entitled
Perceptions Of Safety And Crime Deterrence: The Impact Of CCTV Cameras In Business Establishments

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[Signature]
Chief Editor

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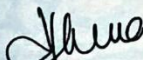
The Board of
International Journal of Research and
Innovation in Social Science
ISSN: 2454 -6186

Is hereby awarding this certificate to
JOSE F. CUEVAS JR.

In recognition of the publication of the paper entitled
Perceptions Of Safety And Crime Deterrence: The Impact Of CCTV Cameras In Business Establishments

Published In **IJRIS** Online Journal

Page No. 6123-6136 Volume 9 Issue 11 Month November Year 2025


Chief Editor

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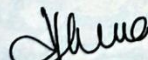
The Board of
International Journal of Research and
Innovation in Social Science
ISSN: 2454 -6186

Is hereby awarding this certificate to
TEOPISTO YRAY CULANAG JR.

In recognition of the publication of the paper entitled
Perceptions Of Safety And Crime Deterrence: The Impact Of CCTV Cameras In Business Establishments

Published In **IJRIS** Online Journal

Page No. 6123-6136 Volume 9 Issue 11 Month November Year 2025


Chief Editor

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Scientific Innovation Society

E-mail: ijriss@rsisinternational.org Visit us at www.rsisinternational.org

APPENDIX J

TURNITIN RESULTS

Page 2 of 97 - Integrity Overview

Submission IDtrn:oid::28447:137868535

20% Overall Similarity

The combined total of all matches, including overlapping sources, for each database.

Filtered from the Report

- Bibliography

Exclusions

- 1 Excluded Source

Match Groups

-  **79 Not Cited or Quoted 10%**
Matches with neither in-text citation nor quotation marks
-  **79 Missing Quotations 6%**
Matches that are still very similar to source material
-  **40 Missing Citation 3%**
Matches that have quotation marks, but no in-text citation
-  **13 Cited and Quoted 1%**
Matches with in-text citation present, but no quotation marks

Top Sources

- 12%  Internet sources
- 5%  Publications
- 17%  Submitted works (Student Papers)

Integrity Flags

0 Integrity Flags for Review

No suspicious text manipulations found.

Our system's algorithms look deeply at a document for any inconsistencies that would set it apart from a normal submission. If we notice something strange, we flag it for you to review.

A Flag is not necessarily an indicator of a problem. However, we'd recommend you focus your attention there for further review.

CURRICULUM VITAE

PERSONAL INFORMATION

Name: CHRISTYL R. NANO
Date of Birth: September 6, 2003
Parents: Arnold C. Nano Sr. & Cristita R. Nano
Religion: Iglesia Filipina Independiente
Residence: P-2 Labo, Ozamiz City
Contact Number: 09382475167
Email: nanochristyl31@gmail.com



EDUCATIONAL BACKGROUND

College: Bachelor of Science in Criminology
Misamis University
H.T. Feliciano St., Ozamiz City
June 2026
Secondary: High School Diploma
Humanities and Social Sciences
Misamis University
H.T. Feliciano St., Ozamiz City
May 2022
Elementary: Elementary Diploma
Labo Central School
Ozamiz City
March 2015

TRAINING/SEMINARS ATTENDED

- Mental Health and Awareness Seminar
- Seminar-Workshop in Dactyloscopy

CURRICULUM VITAE

PERSONAL INFORMATION

Name: SAMUEL C. COLANGO JR.
Date of Birth: May 7, 2001
Parents: Samuel D. Colango & Merilyn C. Colango
Religion: Roman Catholic
Residence: P- bonifacio Bacolod, Ozamiz City
Contact Number: 09682860416
Email: samuelcolangojr@gmail.com



EDUCATIONAL BACKGROUND

College: Bachelor of Science in Criminology
Misamis University
H.T. Feliciano St., Ozamiz City
June 2026

Secondary: High School Diploma
Humanities and Social Sciences
Misamis University
H.T. Feliciano St., Ozamiz City
March 2020

Elementary: Elementary Diploma
Bacolod Elementary School
Bacolod, Ozamiz City
March 2014

TRAINING/SEMINARS ATTENDED

- Mental Health and Awareness Seminar
- Seminar-Workshop in Dactyloscopy

CURRICULUM VITAE

PERSONAL INFORMATION

Name: JOSEPH ALEXANDER P. PAGHASIAN
Date of Birth: December 27, 2003
Parents: Judito T. Paghasian & Alice P. Paghasian
Religion: Born Again Christian
Residence: P-1 Lam-an, Ozamiz City
Contact Number: 09159061833
Email: paghasianalexander@gmail.com



EDUCATIONAL BACKGROUND

College: Bachelor of Science in Criminology
Misamis University
H.T. Feliciano St., Ozamiz City
June 2026

Secondary: High School Diploma
Science, Technology, Engineering, and Mathematics
Ozamiz City National High School
Ozamiz City
June 2022

Elementary: Elementary Diploma
Ozamiz City Central School
Ozamiz City
March 2015

TRAINING/SEMINARS ATTENDED

- Mental Health and Awareness Seminar
- Seminar-Workshop in Dactyloscopy

CURRICULUM VITAE

PERSONAL BACKGROUND

Name: STEWARD M.DITCHE

Date of birth: September 12 2003

Parents: Reynaldo M. Ditché & Merlina M. Ditché

Religion: Eastern Visayas Independent Catholic church

Residence: Purok 4 Guba Clarin Misamis Occidental

Contact Number: 09510406630

Email: stewardditché@gmail.com



EDUCATIONAL BACKGROUND

College: Bachelor of Science in Criminology
Misamis University
H.T. Feliciano St., Ozamiz City
June 2026

Secondary: High School Diploma
General Academic Strand
Congressman Hilarion J. Ramiro Jr. Memorial National High School
Guba Clarin Misamis Occidental
June 2022

Elementary: Elementary Diploma
Ozamiz Elementary School
Guba Clarin Misamis Occidental
March 2015

TRAINING/SEMINARS ATTENDED

- Mental Health and Awareness Seminar
- Seminar-Workshop in Dactyloscopy