

Safety, Security and Sanitary Practices of Lodging Establishments: Bases for Extension Services Program

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ABSTRACT

This study determined the safety, security, and sanitation practices of lodging establishments in Caluya, Antique, and used the findings as bases for an extension services program. A descriptive-correlational design was employed from September to December 2025 with 225 randomly selected employees and staff of identified lodging establishments. The sample size was determined through Slovin's formula, and participants were selected through simple random sampling using the fishbowl technique. Data were collected using a validated and pilot-tested researcher-developed questionnaire-checklist covering respondent profile, safety, security, and sanitation practices. Frequency, percentage, mean, rank, t-test, one-way analysis of variance, chi-square, and Spearman's rho were applied at the .05 significance level. Safety and security

were both assessed as high, with identical overall means of 3.83. The most frequently reported sanitation practices were maintaining a clean and odor-free check-in or ordering counter, providing sufficient quality hygiene materials in bathrooms and toilets, and regularly sanitizing high-touch areas. Safety and security assessments did not significantly differ across age, sex, educational attainment, or length of service. Sanitation practices differed significantly across all four profile variables, while no significant relationships were found among safety, security, and sanitation. The findings supported the proposed capacity-building program for hotel and inn personnel to strengthen operational standards, regulatory compliance, and guest protection.

Keywords: *lodging establishments, hospitality safety, hotel security, sanitation practices, extension services, Caluya Antique*

INTRODUCTION

Lodging establishments are central to tourism and local economic activity because they provide accommodation, employment, and services to visitors. In the Philippine accommodation and food-service sector, continued business growth has increased the need for operational practices that protect guests, employees, property, and public health. The source study identifies safety, security, and sanitation as essential institutional responsibilities, particularly after the COVID-19 experience and amid recurring natural, technological, and human-made threats (Philippine Statistics Authority [PSA], 2023).

The same concerns are significant in Antique, where tourism activity increased after the easing of public-health restrictions. Local lodging establishments, including those operating near destinations in Caluya, support visitors and community livelihoods; however, the source manuscript notes a lack of empirical investigations that simultaneously examined their safety, security, and sanitation practices (Provincial Tourism Office-Antique [PTO-Antique], 2023). Evidence from hospitality research further indicates that perceived safety and cleanliness influence guests' confidence, establishment selection, and the overall service experience (Atadil & Lu, 2021; Torralba & Ylagan, 2022).

Safety involves controlling hazards that may cause physical, psychological, or material harm, whereas security refers to measures that prevent or respond to deliberate and emerging threats. Sanitation concerns hygienic conditions, waste management, clean water, food handling, room preparation, and disease prevention. These domains are institutionally linked to risk management and to Presidential Decree No. 856, which requires lodging premises, water, toilets, linen, food operations, and employee health practices to meet sanitary standards (Blokland & Reniers, 2020; Presidential Decree No. 856, 1975).

Against this context, the study assessed the levels of safety and security, identified sanitation practices, tested differences across employee characteristics, examined relationships among the three domains, and formulated an extension services program. Its localized evidence is intended to guide lodging owners and managers, employees, regulators, hospitality educators, and community stakeholders in strengthening standards and sustaining safe, secure, and sanitary visitor environments.

Literature Review

Safety and Risk Management in Lodging Establishments

Safety in hospitality requires the continuing identification of hazards and the reduction of risks to guests, employees, and property. Risk Theory explains that risks arise from uncertainty and possible effects on valued objectives; safety is strengthened when negative effects are anticipated, controlled, and reduced (Blokland & Reniers, 2020). The World Health Organization (WHO, 2020) similarly presents safety as a condition in which hazards are controlled to preserve individual and community well-being.

Hotels and related establishments operate in environments exposed to accidents, disasters, disease outbreaks, and other disruptions. International tourism literature therefore emphasizes preparedness, preventive systems, staff training, and monitoring as foundations of sustainable service operations (United Nations World Tourism Organization [UNWTO], 2022). Studies in hospitality settings have likewise reported that guests attach considerable importance to emergency planning, safe access, hazard controls, and visible protective measures (Atadil & Lu, 2021; Torralba & Ylagan, 2022).

Security Systems and Organizational Preparedness

Security extends beyond freedom from crime and includes the ability of people to pursue their activities without fear or uncertainty. Crawford and Hutchinson (2022) distinguish protection from harm from the enabling conditions that allow individuals to move and participate confidently. In lodging establishments, security therefore covers guests, employees, visitors, buildings, information, cash, equipment, and operational continuity.

Effective hotel security combines trained personnel, surveillance, access control, communication systems, emergency protocols, key control, and coordination with local authorities. The American Hotel and Lodging Association (2021), American Protection Group (2022), and Morch (2022) identify these measures as essential to deterrence and timely response. Emerging hospitality practices also include technology-supported surveillance, digital security, mobile monitoring, staff awareness, and collaboration with law enforcement (Jones, 2023).

Sanitation, Hygiene, and Public Health Compliance

Sanitation prevents contact with hazardous wastes and supports the hygienic management of water, food, rooms, toilets, linen, equipment, and shared surfaces. The WHO (2022, 2023) emphasizes that inadequate sanitation contributes to communicable disease and reduces social and economic well-being. Cleaning and disinfecting protocols are therefore indispensable in high-contact service environments such as lodging establishments (United States Centers for Disease Control and Prevention [US CDC], 2021).

Philippine hospitality sanitation is governed by Presidential Decree No. 856, which requires sanitary permits, adequate water and toilet facilities, clean premises, vermin control, employee health certificates, clean linen, and sanitation of rooms and bathrooms before re-occupancy. Operational literature also stresses personal hygiene, appropriate clothing, handwashing, and clean utensils among employees handling food and guest facilities (Lillicrap & Cousins, 2022). Local studies have reported generally satisfactory practices while still

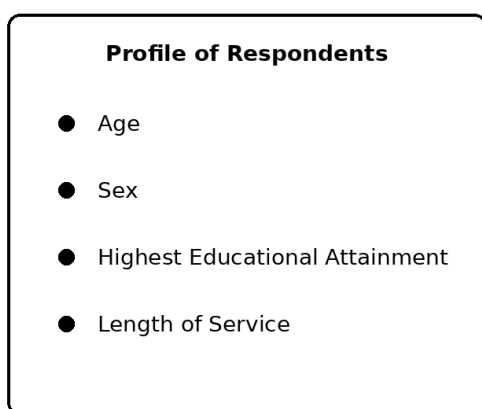
recommending continuous training, equipment improvement, and closer compliance monitoring (Mangco & Andales, 2023; Perez & Manzano, 2017; Toraja, 2023).

Training, Service Quality, and Extension Support

Safe and sanitary operations depend not only on written rules but also on employees' knowledge, attitudes, resources, and consistent implementation. McAllister (2018) identified regulation compliance, employee training, awareness-building, and collaboration with inspectors as key food-safety strategies. Dangkhaw et al. (2022) similarly found that knowledge, social support, and attitudes were associated with food sanitation behavior, underscoring the value of structured capacity-building.

Quality hospitality experiences are strengthened when safety, security, sanitation, and service processes are treated as continuing management responsibilities. Sarmiento and Apritado (2022) found that standard procedures were generally followed in casual dining establishments but identified indicators that needed improvement and proposed an action plan. The present study applies the same improvement orientation by translating the evidence from Caluya lodging establishments into an extension program for hotel and inn personnel.

Independent Variables



Dependent Variables



Figure 1. Schematic diagram of the study showing the respondent profile and the assessed safety, security, and sanitation practices

METHODS

Research Design

The study used a descriptive-correlational research design. The descriptive component determined the levels of safety and security and identified the sanitation practices of lodging establishments, while the comparative and correlational analyses examined differences across employee characteristics and relationships among the three study variables. This design was consistent with the study's purpose of describing existing conditions without manipulating them and examining associations among naturally occurring variables (Creswell, 2019; Johnson & Christensen, 2020).

Research Locale

The research was conducted in lodging establishments located in different barangays of the island municipality of Caluya, Province of Antique, Philippines. Data collection took place from September to December 2025. The locale was selected because lodging establishments serve local and visiting guests and are an important component of the municipality's tourism and service economy.

Participants and Sampling Technique

The participants were 225 employees and staff who were actively employed or had existing contracts with identified lodging establishments at the time of data collection. The sample size was determined using Slovin's formula. Simple random sampling through the fishbowl technique was used after the researchers requested official employee lists from participating owners or managers.

Research Instrument

Data were gathered using the researcher-developed Questionnaire-Checklist on the Level of Safety, Security and Sanitation Practices in Lodging Establishments. Part I collected age, sex, highest educational attainment, and length of service. Parts II and III contained 15 items each for safety and security, answered using a five-point scale from 1 (never) to 5 (always). Mean scores were interpreted as very high (4.21-5.00), high (3.41-4.20), moderate (2.61-3.40), low (1.81-2.60), and very low (1.00-1.80). Part IV contained 15 yes-or-no sanitation items; affirmative responses were tallied and ranked. The source manuscript states that the instrument was reviewed by research experts and pilot-tested for reliability, but it does not report a numerical validity or reliability coefficient.

Data Gathering Procedure

Permission was secured from the Office of the Municipal Mayor of Caluya and from the owners or managers of the selected lodging establishments. Prospective participants were oriented on the scope and nature of the study, after which those who agreed signed informed-consent forms. The questionnaires were administered to the selected employees, retrieved, checked, tallied, and prepared for statistical analysis.

Data Analysis

Frequency and percentage summarized participant characteristics, mean scores described safety and security, and rank identified the leading sanitation practices. Independent-samples t-tests assessed safety and security differences by age, sex, and length of service, while one-way analysis of variance assessed differences by educational attainment. Chi-square tests examined differences in sanitation practices across the four profile variables, and Spearman's rho tested relationships among safety, security, and sanitation. All inferential tests used an alpha level of .05 and were processed using SPSS.

Ethical Consideration

Participation was voluntary and based on informed consent. Respondents were informed of the study's purpose, the scope of their participation, the confidentiality of the information collected, and their right to withdraw whenever they felt uncomfortable. Data were used for research purposes and were treated with confidentiality throughout the study.

RESULTS AND DISCUSSION

Levels of Safety and Security

The lodging establishments received a high overall safety rating ($M = 3.83$). The strongest indicators were avoiding breakable displays or materials that could cause injury ($M = 4.10$), maintaining a visible emergency exit plan ($M = 4.08$), and keeping entrance ramps free of obstruction ($M = 3.98$). The lowest-rated indicator, although still high, was the provision of chairs and tables intended for senior citizens and persons with disabilities ($M = 3.52$). These findings indicate that employees generally perceived their workplaces as protected from common hazards, while accessibility provisions remained an area for further strengthening.

Security was likewise rated high ($M = 3.83$). Monitoring kitchen gas and cooking equipment through warning devices received the highest mean ($M = 4.11$), followed by coordination with local security officers ($M = 4.10$) and provision of two-way radios to security personnel ($M = 3.97$). Lower ratings were recorded for compliance with opening and closing security protocols ($M = 3.51$) and the availability of licensed security personnel in strategic locations around the clock ($M = 3.58$). The high ratings are consistent with hospitality

studies showing that visible controls, emergency readiness, and coordinated security measures contribute to confidence among employees and guests (Anichiti et al., 2021; Torralba & Ylagan, 2022).

Table 1. *Summary of the Overall Safety and Security Assessments*

Domain	Overall Mean	Description	Highest-Rated Indicator	Mean
Safety	3.83	High	Avoiding breakable materials or displays that may cause injury	4.10
Security	3.83	High	Monitoring kitchen gas supply and cooking equipment through warning devices	4.11

Sanitation Practices

The most frequently reported sanitation practices centered on visible cleanliness, guest hygiene provisions, and regular treatment of frequently touched surfaces. Maintaining a clean and odor-free check-in or ordering counter and providing sufficient, quality hygiene materials in bathrooms and toilets were tied at the highest frequency ($f = 212$), followed by regular cleaning and sanitizing of high-touch areas ($f = 211$). Keeping exterior surroundings clean and requiring sanitation training were also widely reported ($f = 210$ each).

These results show that the establishments gave considerable attention to practices directly experienced by guests. They support findings that cleanliness and sanitation are central to hospitality reputation and customer confidence (Atadil & Lu, 2021) and that lodging and food-service establishments benefit from continuous training, adequate supplies, and routine compliance monitoring (Mangco & Andales, 2023; Perez & Manzano, 2017; Toraja, 2023).

Table 2. *Leading Sanitation Practices Reported by Employees*

Rank	Sanitation Practice	Frequency
1.5	Clean and odor-free check-in or ordering counter	212
1.5	Sufficient and quality hygiene materials in bathrooms and toilets	212
3	Regular sanitation of high-touch areas	211
4.5	Clean exterior surroundings	210
4.5	Sanitary training for personnel and crew	210

Differences Across Employee Characteristics

Safety ratings did not significantly differ by age, sex, educational attainment, or length of service. Security ratings also showed no significant differences across the same characteristics. Thus, employees with different backgrounds provided broadly similar assessments of the establishments' safety and security conditions. The consistency of these perceptions suggests that the reported protective measures were visible and experienced across employee groups.

Sanitation practices, however, differed significantly by age, sex, highest educational attainment, and length of service. These differences indicate variation in which sanitation activities employee groups recognized or reported most frequently. The result is consistent with Mangco and Andales (2023), who identified differences in perceptions of hygienic practices and sanitation procedures among hospitality personnel. It also points to the need for standard orientation and monitoring so that required practices are understood and implemented consistently.

Table 3. *Tests of Differences in Safety, Security, and Sanitation*

Outcome	Profile Variable	Test Statistic	p-value	Decision
Safety	Age	$t = 0.403$	.688	Not significant
Safety	Sex	$t = -0.952$	.342	Not significant
Safety	Educational attainment	$F = 0.269$	.848	Not significant
Safety	Length of service	$t = 0.287$	.774	Not significant
Security	Age	$t = -1.722$	.086	Not significant
Security	Sex	$t = 1.744$	.083	Not significant
Security	Educational attainment	$F = 0.649$	.584	Not significant

Security	Length of service	$t = -1.958$	.510	Not significant
Sanitation	Age	$\chi^2 = 41.818$	< .001	Significant
Sanitation	Sex	$\chi^2 = 17.640$	< .001	Significant
Sanitation	Educational attainment	$\chi^2 = 77.347$	< .001	Significant
Sanitation	Length of service	$\chi^2 = 16.538$	< .001	Significant

Relationships Among Safety, Security, and Sanitation

Spearman's rho results showed no significant relationship between safety and security ($r_s = .071$, $p = .290$), safety and sanitation ($r_s = .008$, $p = .903$), or security and sanitation ($r_s = .110$, $p = .099$). The three operational areas therefore appeared statistically independent in the data. A lodging establishment could be perceived as safe or secure without necessarily receiving the same pattern of sanitation responses, indicating that each domain requires its own standards, resources, supervision, and evaluation.

The absence of significant relationships should not be interpreted as evidence that any domain is unimportant. Rather, it suggests that improvements should be planned through parallel but coordinated systems. Sanitation, safety, and security involve different procedures and responsible personnel; a comprehensive institutional program should therefore address each domain explicitly instead of assuming that strength in one automatically produces strength in the others.

Table 4. *Spearman Correlations Among the Study Variables*

Variable Pair	Spearman r_s	p-value	Interpretation
Safety and security	.071	.290	Not significant
Safety and sanitation	.008	.903	Not significant
Security and sanitation	.110	.099	Not significant

Proposed Extension Services Program

Based on the findings, the study proposed Enhancing Safety, Security and Sanitation Standards in Lodging Establishments: A Capacity-Building Program for Hotel and Inn Personnel. The program places the Bachelor of Science in Hospitality Management program of the University of Antique-Caluya Extension in a supporting extension role and responds directly to the study's recommended priorities: regulatory awareness, modern safety and security measures, sanitation compliance, employee participation, and sustained stakeholder cooperation.

Table 5. *Proposed Capacity-Building Program Framework*

Focus Area	Evidence-Based Priority	Proposed Extension Activity	Expected Immediate Output
Safety	Maintain high ratings while improving accessibility and hazard-prevention provisions	Workshop on hazard identification, emergency exits, fire safety, and inclusive guest facilities	Site-specific safety checklist and improvement commitments
Security	Strengthen opening/closing protocols, trained security presence, communication, and technology	Training on security procedures, incident response, surveillance, communication, and coordination with authorities	Updated security protocols and response flow
Sanitation	Standardize practices across employee groups and reinforce regulatory compliance	Demonstration and coaching on PD 856 requirements, high-touch cleaning, bathroom hygiene, linen, waste, and employee health practices	Sanitation monitoring checklist and duty assignment
Sustainability	Promote shared responsibility among owners, employees, regulators, and guests	Stakeholder consultation, monitoring visits, feedback sessions, and follow-up technical assistance	Collaborative action plan and monitoring schedule

CONCLUSION

The study established that employees generally perceived lodging establishments in Caluya, Antique as having high levels of safety and security, with both domains obtaining an overall mean of 3.83. Employees also reported widespread sanitation practices, particularly the maintenance of clean guest-contact areas, the availability of hygiene materials, and the routine sanitation of high-touch surfaces. Safety and security perceptions were consistent across age, sex, educational attainment, and length of service, whereas reported sanitation practices differed across all four characteristics.

No significant relationships were found among safety, security, and sanitation, showing that the three areas functioned as distinct operational responsibilities within the participating establishments. The study contributes localized evidence for hospitality management and supports a capacity-building extension program that addresses safety, security, and sanitation through separate but coordinated standards, training, and monitoring mechanisms.

Recommendation

Government regulators and local government units should strengthen coordination, inspection, and implementation of policies related to lodging safety, security, and sanitation. Owners and managers should sustain the high-rated practices while addressing lower-rated areas through inclusive facilities, updated opening and closing protocols, trained security coverage, communication systems, and appropriate technologies. Sanitation procedures should be standardized across employee groups and aligned with Department of Health, Department of Tourism, and Presidential Decree No. 856 requirements.

The University of Antique-Caluya Extension, through its hospitality management program, should implement and periodically evaluate the proposed capacity-building program for hotel and inn personnel. Follow-up monitoring should determine whether training results in improved protocols and compliance. Future studies may include guest assessments, direct facility audits, additional organizational variables, and other municipalities to test the transferability of the findings.

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