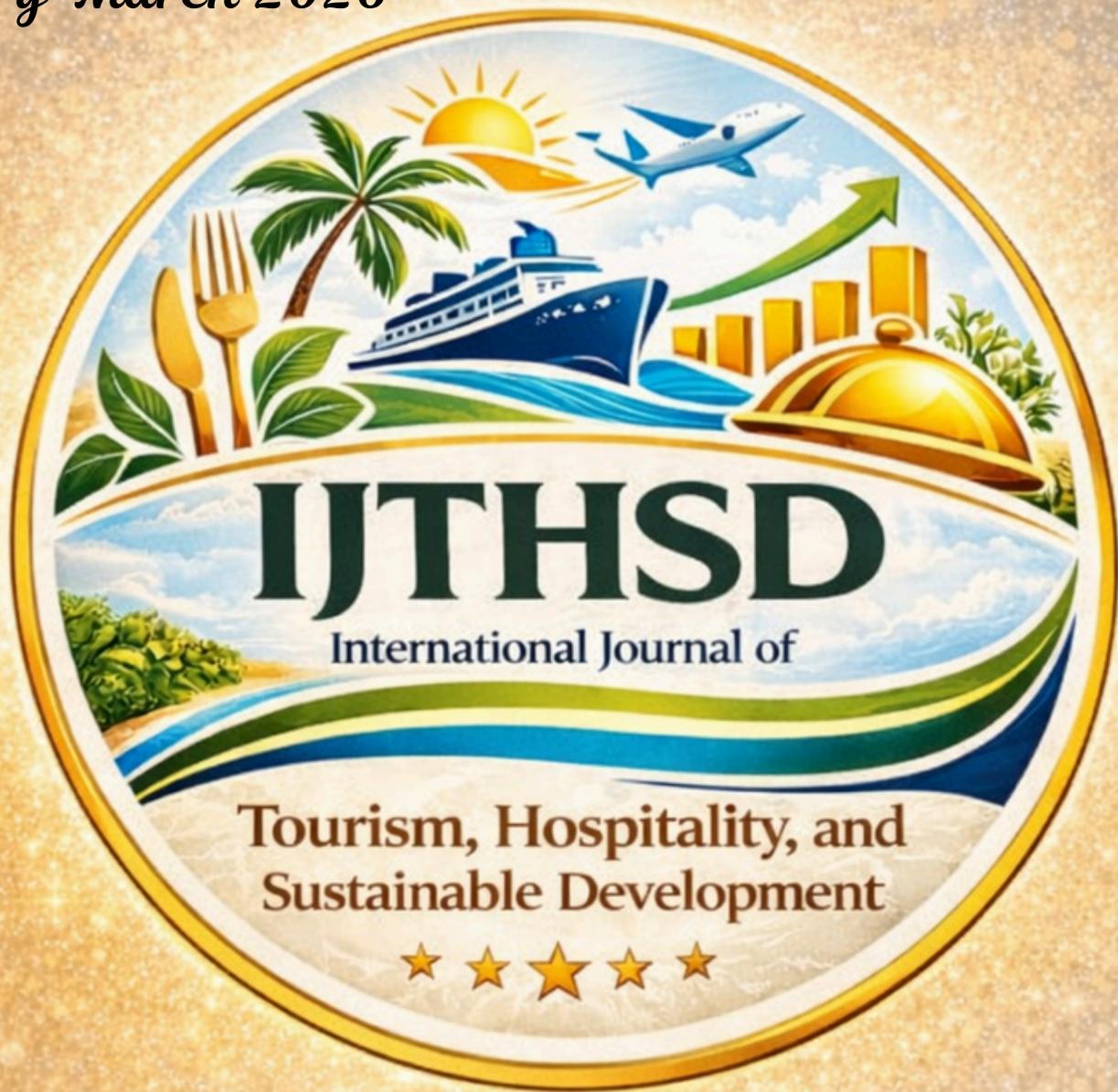


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International Journal of
**Tourism, Hospitality, and
Sustainable Development**

A Quarterly Peer-Reviewed International Research Journal

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About the Journal

The **International Journal of Tourism, Hospitality, and Sustainable Development (IJTHSD)** is a scholarly, open-access, quarterly, peer-reviewed, international print and online research journal dedicated to the advancement of knowledge in tourism studies, hospitality management, food and culinary tourism, restaurant and café enterprises, sustainable tourism development, and destination governance. IJTHSD serves as a global platform for tourism researchers, hospitality and food service professionals, restaurateurs, café operators, destination planners, policymakers, and interdisciplinary scholars to disseminate high-quality empirical, theoretical, and practice-based research that contributes to responsible tourism growth, culinary heritage preservation, community-based enterprises, and sustainable destination management. The journal is committed to maintaining rigorous scholarly standards, ethical research practices, and global visibility through international indexing, Crossref DOI registration, and print and electronic ISSN accreditation.

Aims and Scope

Aims

IJTHSD aims to:

1. Promote high-quality research in tourism, hospitality, food and culinary tourism, and sustainable development
2. Advance theoretical and applied understanding of tourism systems, hospitality operations, and gastronomy-driven destination experiences
3. Encourage interdisciplinary research linking tourism with culture, food, environment, economics, and policy
4. Provide a venue for global, comparative, and community-based tourism and hospitality studies
5. Support evidence-based tourism planning, restaurant and café development, governance, and sustainability initiatives



Scope

The journal welcomes original research articles, systematic reviews, conceptual papers, case studies, and policy analyses in, but not limited to, the following areas:

- Tourism planning and destination development
- Hospitality, hotel, restaurant, café, and food service management
- Food tourism, culinary tourism, gastronomy, and local cuisine studies
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- Tourism economics and impact assessment
- Ecotourism and nature-based tourism
- Heritage, creative, and food-based tourism experiences
- Tourism governance, policy, and regulation
- Event, cruise, maritime, and festival tourism
- Tourism resilience, crisis, and disaster management

Publication Frequency and Format

- **Frequency:** Quarterly (4 issues per year)
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 - Electronic ISSN
 - Crossref DOI assigned to all published articles

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Additionally, kindly comply with the following:

- 1. Academic Significance, Contribution to Discipline or Community, Technical Novelty**
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- 2. English Usage (or Filipino, as may be applicable)**
The manuscript must adhere to the rules of grammar and language usage, whether in English or Filipino.
 - Use **past tense** consistently since the study is already completed.
 - Avoid first-person point of view (“I,” “we”); instead, maintain a **third-person scientific tone**.
 - Avoid contractions; spell out complete words to retain formality.
 - Provide **English translations** for words, terms, or items not understandable to international readers.
- 3. Abstract**
The abstract should follow the journal’s prescribed format and accurately reflect the study’s major components. Ensure that it correctly presents the **aim, methodology, key findings or results, and conclusion** in a concise and logical manner.
- 4. Introduction / Background of the Study**
The introduction must:
 - Present a clear rationale or background from the **global to Philippine/local contexts**.
 - Show the **trends and issues** related to the study, supported with recent and relevant citations (2021–2026 preferred).
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- 5. Statement of the Problem, Research Objectives and Research Questions**
The Statement of the Problem, Research Objectives and Research Questions must be clearly, explicitly, and logically stated.
 - The **statement of the problem** is a detailed explanation of the issue, gap, or challenge that the study seeks to address. It frames the context and justifies why the study is necessary, usually written in declarative form as a narrative or paragraph. Its purpose is to highlight the significance, scope, and urgency of the study,



providing a broad and contextual background of the issue at hand. For example, a study may state: *“Despite government programs, many senior citizens in rural areas experience delays in receiving social pensions, raising concerns about accessibility and efficiency.”*

- The **research objectives** represent the specific aims or intentions of the study, focusing on what the researcher seeks to accomplish. These are written in infinitive form such as “To determine...” or “To examine...,” ensuring that the targets are clear, measurable, and achievable. Unlike the broad statement of the problem, objectives are narrower and centered on actionable outcomes. For instance, a general objective could be *“To assess the implementation of the Social Pension Program in Balbalan, Kalinga.”* This may be broken down into specific objectives, such as: (1) To determine the accessibility of the program, (2) To examine its impact on beneficiaries, and (3) To identify challenges faced in its implementation.
- The **research questions** are the interrogative form of the objectives, expressed as direct questions the study seeks to answer. They are usually written in formats such as “What is...?” or “How does...?” and serve the purpose of guiding data collection and analysis by pointing to specific inquiries. Research questions are even more specific than objectives, as they operationalize the study’s goals into answerable items. Using the same example, the research questions could include: *RQ1: How accessible is the Social Pension Program to senior citizens in Balbalan? RQ2: What impact does the program have on the beneficiaries’ quality of life? RQ3: What challenges hinder the effective implementation of the program?*

6. Review of Related Literature and Studies

This section must include sufficient, relevant, and **up-to-date references** to support the rationale and conduct of the research.

- Avoid outdated sources (1–2 decades old) for dynamic or evolving concepts.
- Do not use sources with “no date (n.d.)”
- Ensure citations are aligned with the arguments and logically linked to the study.
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7. Theoretical and/or Conceptual Framework

An appropriate theoretical and/or conceptual framework must be presented to anchor the study.

8. Research Methodology (Research Design, Population and Sampling, Instrument, Data Collection, Treatment of Data, Ethics in Research)

The methodology section should be well-structured, detailed, and properly organized. Each subsection should only contain content appropriate to it:

- **Research Design:** Describe what design was used, how it was applied, and why it was the most suited.
- **Population and Sampling and Other Source/s of Data:** Provide the exact number of participants/respondents, how and why they were selected. If you used other source/s of data (documents, policies, other contents), describe each document, how each was accessed, and why each is needed in the study.



- **Instrument/s:** State whether the instrument was adopted or researcher-made. Describe its validation process, including the qualifications of validators.
- **Data Collection:** Focus on *how, when, and where* the data was collected. Do not include ethics approval here.
- **Treatment of Data:** Clearly describe the methods of data analysis or statistical treatment. For qualitative analysis, avoid generic discussions (e.g., what thematic analysis is according to authors). Instead, show how the method was applied in your study.
- **Ethical Considerations:** Include ethical approval, informed consent, and permissions here, not in other subsections.

Important Reminders:

- Avoid “chop-suey” writing (mixing unrelated topics).
- If the study used a **mixed-method approach**, discuss both parts separately (quantitative and qualitative)—design, participants, instruments, data collection, treatment of data, ethical considerations—and explain how the two sets of data were integrated.
- Use plural (“researchers”) consistently if the paper has co-authors.

9. Results and Discussion

- Present results clearly, logically, and aligned with the research questions.
- Support findings with **relevant and recent literature**.
- Integrate discussion immediately after each result to enhance coherence.

10. Conclusions and Recommendations

- Conclusions must be logically drawn from the study’s findings.
- Recommendations should be **specific, actionable, and relevant** to the results. Avoid generic statements.

11. References (APA 7th Edition)

References must strictly adhere to APA 7th edition. Authors must review their entire manuscript carefully:

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- All in-text citations must appear in the References list and vice versa. **No mismatches allowed.**
- Avoid old references; prioritize recent ones.
- If a citation was included but missing in the References, update it properly (do not erase it without explanation). Similarly, remove unused entries from the References list.
- The paper will not be published if even one citation/reference entry is non-compliant.

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- All sources listed in the References Section must match 100% with the actual sources used in the entire manuscript, and all sources cited in the entire manuscript are reflected in the list of sources in the References section.



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Always define acronyms upon first mention in the manuscript. Do not assume that readers will automatically know them.

Authors are also required to submit a **duly signed Authorship and Contribution Declaration Form**, which can be accessed via this link: <https://tinyurl.com/TemplatesIJTHSD>

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Upon receipt, authors receive an **acknowledgment email**.

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Review decisions may be:

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- Accept after minor revisions
- Accept after major revisions



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In cases of split reviewer decisions, a **third reviewer** will be assigned. Authors are given **two weeks** for revisions. Final decisions are made by the **Editor-in-Chief**.

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Editor's Note

International Journal of Tourism, Hospitality, and Sustainable Development (IJTHSD)

It is with great pride and enthusiasm that we present the maiden issue of the *International Journal of Tourism, Hospitality, and Sustainable Development (IJTHSD)*. This inaugural publication reflects ETCOR's commitment to advancing rigorous, inclusive, and socially responsible tourism scholarship.

Tourism and hospitality—alongside food tourism, gastronomy, restaurants, and cafés—are among the world's most dynamic sectors, shaping economies, identities, and everyday lived experiences of destinations.

IJTHSD provides a scholarly platform for studies examining tourism systems, hospitality operations, culinary experiences, destination planning, and sustainable development, recognizing food as a central element of tourism consumption and cultural expression.

As a peer-reviewed international journal, IJTHSD upholds the highest standards of academic integrity through a double-blind review process, strict adherence to publication ethics, and commitment to methodological rigor.

The journal seeks to bridge research and practice. Tourism and food-related research achieves its greatest impact when it informs destination management, restaurant and café development, community engagement, and policy formulation.

This maiden issue is the result of collaborative efforts among authors, reviewers, editors, and language specialists who share a dedication to scholarly excellence and sustainable tourism and hospitality advocacy.

IJTHSD is positioned as a global journal that values interdisciplinary, comparative, and community-centered perspectives, including gastronomy-led tourism and small-scale hospitality enterprises.

The journal is also committed to supporting early-career tourism, hospitality, and culinary scholars. IJTHSD provides a supportive yet rigorous platform for emerging voices in tourism and food studies.

As we launch this first issue, we reaffirm our commitment to ethical publishing, sustainability, and continuous improvement, responding to evolving tourism and food consumption trends.

On behalf of the Editorial Board, we invite tourism scholars, hospitality professionals, restaurateurs, café entrepreneurs, and development practitioners worldwide to join us in shaping future issues of IJTHSD.

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Dr. Angelyn C. Dy Tioco, Editor-in-Chief

International Journal of Tourism, Hospitality, and Sustainable Development (IJTHSD)

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Business Strategic Planning for Tourism Recovery in Caramoan, Camarines Sur Amid COVID-19: A SWOT-TOWS Approach

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Abstract

Aim: This study aims to formulate and validate a practicable, locally grounded strategic plan to support tourism recovery in Caramoan, Camarines Sur, amid the COVID-19 pandemic. Specifically, it (a) documents the pandemic's impacts on accommodation providers and tour operators; (b) constructs a SWOT profile; and (c) proposes and evaluates a TOWS-derived recovery plan, *Project BEST (Building and Empowering Communities through Sustainable Tourism)*, with stakeholder input. The study contributes to destination-level crisis management literature by integrating MSME perspectives with international evidence on recovery and resilience.

Methodology: A descriptive mixed-methods design was employed, combining semi-structured interviews and surveys with 32 accommodation providers and tour operators selected through purposive sampling. Data were analyzed through thematic coding to develop the SWOT matrix and weighted mean computation for evaluating plan acceptability. Ethical principles of informed consent, confidentiality, and voluntary participation were strictly observed.

Results: The SWOT analysis revealed strong entrepreneurial resilience, improved facilities, and diversification as key strengths; operational disruptions and loss of foreign markets as weaknesses; domestic tourism rebound and digital innovation as opportunities; and lingering health and policy risks as threats. TOWS analysis yielded six strategic priorities under *Project BEST*: (1) continuity in operations, (2) health and safety compliance, (3) training and skills development, (4) marketing innovations, (5) showcasing Caramoan's uniqueness, and (6) flexible products and services. Stakeholders rated the plan highly acceptable across appropriateness (4.51), usability (4.39), and duration (4.30). These outcomes affirm the feasibility of *Project BEST* as a blueprint for resilient tourism recovery, aligning with regional evidence that destinations with digital readiness and clear protocols achieve faster rebounds.

Conclusion: Caramoan's tourism recovery prospects are promising given robust domestic demand and improving international mobility. A locally anchored, evidence-informed strategy operationalized through *Project BEST* can transform macro-level recovery efforts into enterprise-level resilience and community empowerment. This framework is transferable to similar coastal destinations pursuing sustainable, inclusive, and risk-responsive growth.

Keywords: *tourism recovery; SWOT-TOWS; strategic planning; sustainable tourism; Caramoan; Philippines; COVID-19*

INTRODUCTION

Tourism has long been recognized as one of the world's largest and most dynamic industries, contributing significantly to global economic growth, employment, and cultural exchange. According to the World Tourism Organization (UNWTO, 2023), tourism accounted for approximately 9.2 percent of the global gross domestic product (GDP) and supported more than 320 million jobs prior to the onset of the COVID-19 pandemic. This multifaceted sector encompasses interrelated industries such as transportation, hospitality, travel services, entertainment, and retail, which collectively stimulate local economic activity and community livelihoods. However, the COVID-19 pandemic caused an unprecedented global disruption. When the World Health Organization (WHO) declared COVID-19 a pandemic on March 11, 2020, governments worldwide implemented lockdowns, border closures, and travel restrictions, resulting in a 74 percent decline in international tourist arrivals in 2020 (UNWTO, 2021). Although global tourism began to recover gradually by 2023, the World Travel and Tourism Council reported that challenges such as labor shortages, evolving traveler behavior, and health and safety concerns continued to hinder full recovery. Consequently, international recovery strategies have emphasized digital transformation, micro, small, and medium enterprise (MSME) resilience, and sustainable tourism development aligned with the United Nations Sustainable Development Goals (SDGs).

In the Philippines, tourism has been a key pillar of socio-economic development, contributing 12.8 percent to the national GDP and generating employment for approximately 5.7 million Filipinos before the pandemic (Philippine Statistics Authority [PSA], 2020). The pandemic, however, severely affected the sector. The suspension of domestic



and international travel led to a sharp decline in tourist arrivals and revenues, with estimated losses reaching ₱400 billion in 2020 (Department of Tourism [DOT], 2021). In response, the national government implemented the Tourism Response and Recovery Plan (TRRP) and the National MSME Resilience Framework, both of which emphasized sustainability, digital innovation, and support for tourism enterprises (DOT, Department of Trade and Industry [DTI], & National Economic and Development Authority [NEDA], 2022). MSMEs—representing 99.5 percent of all Philippine businesses, employing 63 percent of the workforce, and contributing 35.7 percent of total value-added output (DTI, 2023)—were among the hardest hit. Many faced temporary closures, workforce reductions, and limited access to financial assistance, particularly in rural and island destinations where tourism forms the economic backbone. While government programs such as the Small Business Corporation's CARES Program and DTI's Negosyo Centers provided relief, their reach was limited and did not fully address long-term recovery needs.

In the Bicol Region, the municipality of Caramoan in Camarines Sur exemplifies a destination that suffered significant economic setbacks during the pandemic. Known for its pristine beaches, island-hopping attractions, and eco-adventure tourism, Caramoan's economy depends largely on small-scale enterprises, including accommodation providers, transport services, and tour operators. The pandemic led to business closures, reduced visitor arrivals, and income losses, underscoring the urgency for a localized and sustainable tourism recovery plan. Despite the existence of national frameworks, limited research has explored how local MSMEs in small destinations like Caramoan can recover through evidence-based strategic planning. Prior studies have primarily focused on national tourism policies or macroeconomic recovery frameworks, leaving a gap in the understanding of destination-specific strategies that integrate community participation and local capacity building.

This study addresses that gap by developing and validating a business strategic plan for Caramoan's tourism-related MSMEs using the SWOT-TOWS analytical framework, which integrates internal and external factors influencing recovery. By incorporating inputs from local stakeholders, the study ensures that the proposed strategies are contextually appropriate and aligned with community needs. In doing so, it contributes to the growing body of literature on post-pandemic tourism recovery and MSME resilience in the Philippines. It is among the first studies to apply a SWOT-TOWS-based approach specifically to Caramoan's tourism enterprises, offering a practical model for small destinations navigating post-crisis recovery. The findings are expected to support evidence-based policymaking, strengthen local entrepreneurship, and promote sustainable and inclusive tourism governance, aligning Caramoan's recovery efforts with both national and global sustainability goals.

Review of Related Literature and Studies

Tourism remains one of the most dynamic yet vulnerable industries globally, serving as a vital driver of economic growth, employment, and intercultural exchange. Prior to the pandemic, tourism contributed 9.2 percent to global GDP and supported more than 320 million jobs (UNWTO, 2023). However, COVID-19 caused a 74 percent decline in international tourist arrivals in 2020 (UNWTO, 2021), marking the industry's most significant downturn in history. In response, global organizations such as the UNWTO emphasized the need for sustainable recovery through innovation, digital transformation, and inclusive participation. Studies revealed that enterprises demonstrating adaptability through restructuring, digitalization, and diversification exhibited stronger resilience and faster recovery (Hoang et al., 2021). Maneenet (2016) underscored the importance of strategic planning and SWOT analysis in aligning organizational strengths with external opportunities to ensure continuity and competitiveness in turbulent contexts.

In the Philippine setting, the tourism sector contributed 12.8 percent to the national GDP and created approximately 5.7 million jobs prior to 2020 (PSA, 2020). The pandemic, however, severely impacted tourism MSMEs that form the backbone of local economies. To facilitate recovery, the government introduced several measures, including the Tourism Response and Recovery Plan (TRRP) and the National MSME Resilience Framework (DOT, DTI, & NEDA, 2022). Republic Act No. 11032, or the *Ease of Doing Business and Efficient Government Service Delivery Act of 2018*, also streamlined business processes to support enterprise resilience. Recent studies have highlighted that MSME recovery relies on strategic planning, innovation, and community-based development approaches (Fernando, 2020; Rebuya & Gasga, 2021). These findings indicate that locally driven initiatives supported by government policies can significantly strengthen recovery outcomes.

In Camarines Sur, destinations such as Caramoan experienced sharp tourism declines during the pandemic. Local government efforts, including training and business continuity programs (DTI-Camarines Sur, 2023), provided temporary relief but lacked comprehensive strategic direction. Thus, applying a SWOT-TOWS framework to Caramoan's context can support MSME recovery by enhancing competitiveness, promoting sustainable development, and ensuring long-term resilience.



Theoretical Framework

This study is anchored on Strategic Planning Theory (Gale, 2006) and the SWOT–TOWS Analytical Framework, complemented by principles derived from Consumer Behavior Models. Collectively, these theories explain how MSMEs in the tourism sector can recover and adapt strategically in a post-pandemic environment.

Strategic Planning Theory (Gale, 2006) emphasizes systematic environmental scanning and resource alignment to achieve organizational objectives. It supports this study by providing a structured approach to analyzing internal and external factors affecting MSMEs, enabling the formulation of responsive, sustainable strategies for recovery and growth.

The SWOT–TOWS Analytical Framework complements strategic planning by integrating diagnostic and prescriptive processes. SWOT identifies internal strengths and weaknesses alongside external opportunities and threats, while TOWS translates these insights into actionable strategies. In this study, the framework guides the formulation of *Project BEST*—Building and Empowering Communities through Sustainable Tourism—anchored on MSME and stakeholder collaboration.

Meanwhile, Consumer Behavior Models (Madhavan & Chandrasekar, 2015), including the Nicosia, Howard–Sheth, Engel–Kollat–Blackwell, and Stimulus–Response models, are incorporated to interpret post-pandemic shifts in traveler preferences and purchasing patterns. These models explain how consumer decisions are shaped by information, learning, and environmental stimuli, providing a behavioral foundation for designing responsive marketing and service strategies in the new tourism landscape.

Collectively, these theoretical lenses explain how MSMEs can strategically plan, adapt, and innovate in response to environmental and behavioral shifts—forming the intellectual foundation for the study’s proposed tourism recovery framework.

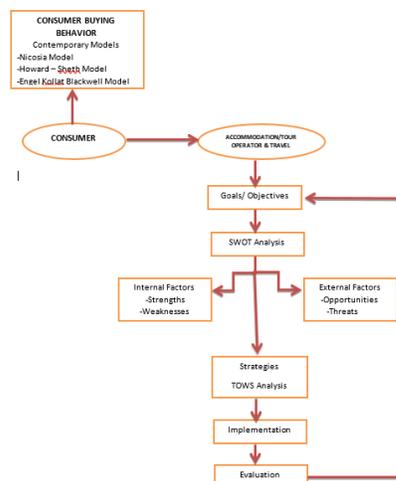


Figure 1. The Theoretical Paradigm

Conceptual Framework

The conceptual framework (Figure 1) illustrates the integration of Strategic Planning Theory and the SWOT–TOWS Analysis in developing a business strategic plan for Caramoan’s tourism MSMEs. The process begins with environmental scanning and SWOT assessment, followed by TOWS-based strategy formulation under Project BEST. The resulting strategic plan is then subjected to stakeholder validation to evaluate its acceptability, feasibility, and sustainability within the post-pandemic context. This framework operationalizes the theoretical constructs by linking environmental analysis to practical recovery actions that strengthen MSME resilience and promote sustainable tourism growth in Caramoan.

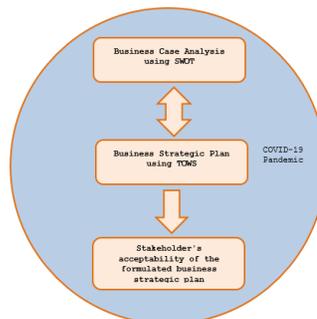


Figure 2. Conceptual Paradigm

Statement of the Problem

The COVID-19 pandemic severely disrupted the global tourism and hospitality industry, and Caramoan, Camarines Sur—known for its island destinations and adventure tourism—was no exception. Accommodation establishments and travel agencies experienced travel restrictions, declining tourist arrivals, and financial instability. Despite recovery initiatives, there remains a lack of localized strategic frameworks designed to strengthen MSME resilience in Caramoan's tourism sector. This gap highlights the need for a sustainable, data-driven business strategic plan responsive to post-pandemic challenges. Hence, this study analyzed the current business environment and identified key factors influencing the viability and competitiveness of local tourism enterprises through SWOT analysis.

Research Objectives

This study generally aims to design a strategic business plan that supports post-pandemic recovery and long-term sustainability of accommodation establishments and travel and tour agencies in Caramoan, Camarines Sur. Specifically, it seeks:

1. To conduct a business case analysis using SWOT for accommodation and travel/tour agencies;
2. To propose a business strategic plan that enhances their competitiveness and resilience; and
3. To determine the acceptability of the proposed plan from the perspective of key stakeholders.

Research Questions

1. What are the strengths, weaknesses, opportunities, and threats (SWOT) of accommodation and travel/tour agencies in Caramoan, Camarines Sur during the COVID-19 pandemic?
2. What business strategic plan can be formulated to enhance their operations and ensure sustainable recovery?
3. How acceptable is the proposed business strategic plan to the identified stakeholders?

Methodology

Research Design

This study employed a descriptive mixed-methods design, integrating both quantitative and qualitative data to comprehensively describe and analyze the current conditions, challenges, and strategic responses of tourism micro, small, and medium enterprises (MSMEs) in Caramoan, Camarines Sur. As defined by Calderon and Gonzales (2018), descriptive research systematically portrays the characteristics and relationships of a given population or phenomenon as they exist in the present, without manipulating variables. It aims to present facts, identify patterns, and interpret observed realities (Creswell & Creswell, 2018).

The mixed-methods approach was considered most appropriate for this investigation because it combined the measurable insights from quantitative surveys with the contextual depth of qualitative interviews. The quantitative component enabled the assessment of stakeholders' acceptability of the proposed strategic plan through numerical analysis, while the qualitative component captured experiential perspectives from MSME owners and managers. This design ensured a holistic understanding of the post-pandemic tourism landscape and facilitated the formulation of an evidence-based strategic plan grounded in empirical and stakeholder data.



Population and Sampling

The study was conducted in the municipality of Caramoan, Camarines Sur, a renowned island and eco-tourism destination in the Bicol Region, Philippines. The target population comprised local tourism MSMEs that remained operational during and after the COVID-19 pandemic. A total of 32 respondents participated, consisting of 18 hotel managers or owners (56.25%), 8 homestay operators (25%), and 6 tour agency owners (18.75%).

A purposive sampling technique was utilized to ensure the inclusion of only active and registered tourism enterprises with firsthand experience in post-pandemic recovery. This approach was appropriate because it focused on respondents most knowledgeable about the operational challenges and resilience strategies relevant to the study's objectives. The sample size of 32 was deemed sufficient to represent the key sectors of Caramoan's local tourism industry and to reach saturation in qualitative responses, balancing both breadth and depth of information.

Instrument

Data were gathered using a researcher-made questionnaire and an interview guide, both designed to address the study's objectives. The questionnaire was divided into three parts: Part I covered the demographic and organizational profiles of respondents; Part II gathered data on business operations and recovery strategies; and Part III assessed stakeholders' acceptability of the proposed strategic business plan in terms of relevance, feasibility, effectiveness, sustainability, and impact.

The instruments underwent content validation by three experts in tourism management and business strategy, each holding at least a master's degree and extensive professional experience in tourism enterprise operations. Revisions were made based on their feedback to improve clarity, accuracy, and alignment with study objectives. The reliability of the survey questionnaire was tested through a pilot administration among five respondents from neighboring municipalities, yielding a Cronbach's alpha coefficient of 0.89, indicating high internal consistency.

For the qualitative component, a semi-structured interview guide was developed to obtain detailed insights into the MSMEs' operational challenges, coping mechanisms, and perspectives on the proposed plan. Questions were designed to complement quantitative data and facilitate triangulation.

Data Collection Procedures

Data collection was conducted from January to March 2024. Prior to implementation, the researchers secured permission from the Caramoan Municipal Tourism Office and coordinated with the Department of Tourism (DOT) Region V to identify active MSMEs. Primary data were collected through survey questionnaires and semi-structured interviews, while secondary data such as policy documents, tourism reports, and economic statistics were obtained from official agencies.

Quantitative data were collected using printed questionnaires personally administered to respondents at their establishments. The researchers scheduled visits to ensure a 100% retrieval rate and provided assistance in clarifying survey items when necessary. Qualitative data were gathered through face-to-face semi-structured interviews with selected respondents from the same group, allowing the exploration of deeper themes related to resilience and recovery strategies. Interviews lasted 30–45 minutes and were audio-recorded with permission for accurate transcription and analysis.

To ensure the credibility and accuracy of findings, the researchers integrated both data sets through triangulation, where qualitative insights validated and enriched the quantitative results, particularly in the formulation and evaluation of the proposed strategic plan.

Data Analysis

Quantitative data were encoded and analyzed using descriptive statistics, specifically frequency counts and percentages to describe respondent profiles, and weighted mean and ranking to determine the level of acceptability of the proposed business strategic plan. These analyses provided measurable insights into stakeholder perceptions of the plan's relevance, feasibility, and sustainability.

Qualitative data from interviews were analyzed through content analysis, following transcription, coding, and categorization of responses into emerging themes aligned with the study's objectives. Thematic results were interpreted in relation to quantitative findings to achieve integrated conclusions.

The triangulation of data ensured reliability and validity by comparing quantitative outcomes with qualitative evidence. This integration allowed the study to substantiate numerical patterns with narrative insights, strengthening the development of the proposed strategic plan for Caramoan's tourism MSMEs.



Ethical Considerations

The study strictly adhered to the ethical research guidelines. All participants were informed of the study's objectives, procedures, and their rights as respondents prior to participation. Informed consent was obtained from each participant, emphasizing voluntary participation and the option to withdraw at any point without penalty.

Interviews were conducted only with the participants' permission, and all audio recordings were made with explicit consent. Personal identifiers were removed from the data to maintain anonymity and confidentiality. The researchers ensured that all collected information was used solely for academic purposes and stored securely in password-protected files. In compliance with data management standards, all research files will be retained for three years after publication and then permanently deleted to ensure data privacy and integrity.

Results and Discussion

SWOT Analysis of Accommodation and Tour Operators

The SWOT analysis revealed that Caramoan's tourism micro, small, and medium enterprises (MSMEs) demonstrated notable strengths such as strong entrepreneurial resilience, improved facilities, and diversification of services. However, the sector also faced key weaknesses, including operational disruptions and the loss of foreign markets. Opportunities emerged from the rebound of domestic tourism and the growing adoption of digital innovations, while threats were associated with persistent health and policy risks.

Located in the Bicol Region of southern Luzon, Philippines—an area frequently affected by typhoons and other natural hazards—local entrepreneurs have historically exhibited exceptional adaptability. When COVID-19 struck in early 2020, Caramoan's tourism industry suffered severe setbacks due to travel restrictions and a sharp decline in visitor arrivals. Nevertheless, local business owners repurposed facilities for small events, training programs, and catering services, displaying remarkable determination to recover despite ongoing uncertainty.

This finding aligns with the Youth Resiliency Framework (Donnan & Hammond, 2007), which posits that internal and external strengths enable communities to adapt effectively to crises. One respondent highlighted, "We must believe in ourselves and pray to the Almighty," underscoring how faith, creativity, and collective action supported local recovery efforts. Weaknesses such as inconsistent local protocols, workforce reduction, and liquidity constraints reflected challenges common among MSMEs globally. The Greiner Growth Model supports this observation, suggesting that crises often compel organizations to adapt their structures and management strategies for long-term survival.

Meanwhile, the rebound of domestic tourism and renewed consumer confidence created opportunities for innovation. Entrepreneurs began investing in online marketing, contactless transactions, and compliance with new health standards. This adaptive behavior mirrors the Parasite-Stress Theory (Thornhill & Fincher, 2014), which explains that communities facing persistent environmental stressors develop behavioral mechanisms that strengthen resilience. Nonetheless, lingering threats—such as reduced leisure demand, unpredictable policy shifts, and lingering health concerns—continued to pose risks. Drawing from Lewin's Force Field Analysis, these challenges required balancing driving and restraining forces to sustain behavioral and structural change.

Quantitative findings from stakeholder surveys corroborated qualitative insights from interviews, both indicating that adaptability, digital innovation, and inter-organizational collaboration were central to recovery. Such results are consistent with recent studies emphasizing innovation and policy coordination as critical drivers of tourism resilience in the Asia-Pacific region (Kristiana et al., 2021).

TOWS-Derived Business Strategic Plan: Project BEST

Based on the SWOT findings, a TOWS analysis was conducted to align internal strengths and external opportunities. This led to the formulation of Project BEST: Building and Empowering Communities through Sustainable Tourism, a comprehensive strategic framework for Caramoan's tourism recovery. The plan features six priority strategies:

1. Developing operational continuity plans to strengthen MSME resilience;
2. Improving facilities and services to comply with updated health and safety standards;
3. Providing capacity-building and skill development programs;
4. Implementing innovative and data-driven marketing campaigns;
5. Showcasing Caramoan's unique attractions through creative destination branding; and
6. Minimizing business disruptions by offering flexible products and services.



Each strategy is supported by measurable Key Performance Indicators (KPIs) and an implementation plan outlining tasks, responsible agencies, timelines, and target outcomes. For example, by the first quarter of 2024, at least ten operational strategies were projected for implementation, 32 establishments were expected to achieve full health and safety compliance, and nine new eco-cultural destinations were identified for development by 2025.

The proposed plan was also evaluated by stakeholders for feasibility. Respondents rated its appropriateness (M = 4.51), usability (M = 4.39), and duration (M = 4.30) as highly acceptable. These ratings validate Project BEST as a viable model for sustainable tourism recovery.

Financial projections estimated a ₱1.0 million implementation budget: ₱500,000 for training and development, ₱150,000 for health and safety measures, ₱100,000 for marketing, and ₱75,000 each for innovation and flexible operations. Partnerships among local government units (LGUs), the Department of Tourism (DOT), the Department of Trade and Industry (DTI), and higher education institutions were proposed to strengthen implementation. Monitoring and evaluation mechanisms, such as progress checklists, ocular inspections, and KPI tracking, will ensure accountability and performance efficiency.

The integration of quantitative and qualitative data affirmed that Project BEST embodies a holistic, evidence-based approach to resilience building. Its alignment with global post-pandemic recovery strategies and the United Nations Sustainable Development Goals positions Caramoan as a model for community-led, adaptive tourism management.

Conclusions

The study concludes that Caramoan's tourism MSMEs have demonstrated strong resilience and adaptive capacity amid pandemic disruptions. The SWOT-TOWS analysis revealed that entrepreneurial perseverance, service diversification, and digital transformation were central to sustaining recovery efforts. By systematically aligning internal capabilities with external opportunities, Project BEST—Building and Empowering Communities through Sustainable Tourism—emerged as a feasible and contextually grounded strategic plan for revitalizing the local tourism economy.

The high stakeholder acceptability ratings affirm the practicality and inclusiveness of the proposed plan, suggesting that recovery anchored in participatory planning and innovation leads to sustainable outcomes. Furthermore, the integration of quantitative data and qualitative insights substantiates the conclusion that localized strategic planning enhances tourism resilience and community empowerment. The findings contribute to academic discourse by demonstrating how destination-specific, data-driven strategies can operationalize resilience theory within small-island contexts.

Recommendations

Based on the results and conclusions of the study, the following recommendations are proposed:

1. The Local Government Unit (LGU) of Caramoan may institutionalize business continuity and safety certification programs to enhance preparedness for future crises.
2. The Department of Tourism (DOT), Technical Education and Skills Development Authority (TESDA), and higher education institutions may collaborate to develop training modules on innovation, digital marketing, and crisis management tailored for tourism MSMEs.
3. Tourism enterprises may adopt digital marketing, cashless payment systems, and online booking platforms to expand market reach and operational efficiency.
4. Local entrepreneurs may form multi-sector partnerships with government and academia to promote resource sharing and inclusive tourism governance.
5. Policymakers may consider integrating Project BEST into the broader Tourism Response and Recovery Plan (TRRP) to replicate its strategies in other coastal and rural destinations.

Caramoan's tourism recovery is rooted in community resilience, adaptive innovation, and collaborative governance. Project BEST offers a locally relevant and scalable model that aligns with both national and global sustainability frameworks. It promotes inclusive growth, reinforces disaster preparedness, and serves as a transferable framework for destinations pursuing sustainable and equitable tourism development in the post-pandemic era.

Future research may extend the evaluation of Project BEST to other island and coastal municipalities to further assess its adaptability, scalability, and long-term sustainability across diverse tourism contexts.

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The Promotion of Business and Tourism in Implementing Green City Building Programs in a Selected City in the Philippines

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Abstract

Aim: This study delves into the Green City Building Program implemented in Quezon City, Philippines, focusing on its potential impact on promoting business and tourism within the city. It assesses the program's efficacy through the perspectives and insights of staff members affiliated with Quezon City's Green Building Department. Recognizing the significant environmental and health implications of urban structures and buildings, the study underscores the pervasive nature of pollution originating not only from vehicular emissions but also from the energy consumption and operational aspects of buildings. These factors exacerbate global warming and contribute to adverse weather patterns, posing threats to lives and assets.

Methodology: Employing a quantitative descriptive research design, the study selectively sampled 100 knowledgeable employees engaged with the Green City Building Program.

Results: Results suggest that the Green City Building Program of Quezon City plays a pivotal role in safeguarding the environment and enhancing public health within the city. By fostering a clean and green urban environment, the program holds promise for bolstering Quezon City's tourism industry. Analysis reveals a high level of awareness among respondents regarding the program's objectives and attributes, with a predominant consensus on the importance of environmental sustainability, biodiversity preservation, energy efficiency, and the adoption of eco-friendly building materials and practices. While the majority of respondents express support for the program, a segment remains uncertain or opposed to its implementation.

Conclusion: Overall, findings indicate a positive correlation between the Green City Building Program and the promotion of Quezon City's tourism sector, with widespread acknowledgment of its potential to contribute to improved public health and environmental sustainability.

Recommendations: The study underscores the significance of such initiatives in addressing contemporary urban challenges and underscores the imperative for continued efforts toward green urban development.

Keywords: *Green City Building Program, Quezon City, Philippines, tourism promotion, environmental sustainability.*

INTRODUCTION

Every person should have a deep understanding of how structures and buildings affect the environment and human health. Pollution and global warming are the two main environmental problems that the government is solving through green building programs and projects. Pollution is everywhere, and it is caused by the smoke coming out from public and private vehicles and factories, as well as from buildings emitting unknown pollution through their air-conditioning, lighting, and energy generation systems. These significantly contribute to global warming that causes drastic changes in weather conditions, which is very alarming, as the Philippines has been visited by many super typhoons that killed many lives and destroyed billions of assets. Green city-building programs are among the greatest systems developed to combat global warming.

In a study conducted and written by Jerry Yudelson (2008), LEED (Leadership in Energy and Environmental Design), or the Green Building Rating System, was launched in the US in 2000 to provide a standard definition and way to measure green buildings. It's a point-based system that rates buildings according to crucial environmental attributes such as site impacts, energy and water use, materials and resource conservation, and indoor environmental quality.

According to the Department of Building Officials (DBO) & Quezon City Government (2011), "Green building refers to an integrated whole-building approach to the planning, design, construction, operation, and maintenance of buildings and their surrounding land space that helps mitigate the environmental, economic, and social impacts of buildings. Emphasis is on site conservation and sustainable planning; water conservation and efficiency; energy



efficiency and renewable energy; conservation of materials and resources; and indoor environmental quality and human health."

A Preliminary Certificate (PC) and a Final Certificate (FC) are the certifications issued by the DBO for the Green Building Infrastructure. One can receive a PC upon satisfaction of the mandatory and elective green building requirements. These mandatory requirements for a PC address land/site sustainability, energy efficiency, water efficiency, materials and resources, indoor environmental quality, and sewage treatment plants. An FC will be received after the completion of the project, and once the appropriate evaluation is completed by the Green Building Inspection Unit (GBIU), stating that the building complied with the green building requirements. (Department of Building Official & Quezon City Government, 2011).

Green city building projects are one of the most influential structures in the United States, while the Philippines is successfully continuing its green city building initiatives and projects, such as Quezon City's Green Fund Summit and the continuous implementation of green buildings in the country. Green City Building Programs are very influential in the country because they support the tourism industry, mainly green tourism. Green city building programs are very advisable for all commercial, residential, and industrial areas because they can positively affect public health and sustain the environment. The different cities in the National Capital Region of the Philippines aim to observe the so-called Green City Program. It is already being established in the cities of Makati and Taguig, and some areas in Quezon City.

The Robinsons Magnolia in Aurora Boulevard is the first certified green building in Quezon City, and it is becoming a tourist destination in the area because of its ambiance and the scenic green garden at its back. The program's benefit is that it keeps the cleanliness and protection of city properties for tourism purposes. Also, the green building, used as a tourist destination, serves as an income-generating program that helps the city's economic growth and development. The green city building program also aids in improving environmental conditions, which significantly contributes to minimizing pollution in the area and will lessen the occurrence of heavy rains and flooding.

The availability of attractions is not the only reason behind the success of tourism areas. The way every establishment accommodates visitors is one of the ways behind getting returning customers. Strict enforcement of cleanliness and sanitation, establishments, and other accommodations will surely give a good impression to their customers. They should convert their buildings into green buildings to improve the implementation of cleanliness and sanitation. Aside from that, it will help them conserve energy and resources and will make them save money. Owners of green buildings also benefit from lower electricity and water bills and healthier environments, aside from these buildings typically having a higher appraisal value and enjoying tax incentives. Let us work together for the progress of Quezon City while contributing to its overall good health, for our welfare, and for the future generations of Quezon City residents" (Bautista, 2011).

In this study, the researchers intend to explore how the green city building program of Quezon City relates to the Tourism Industry and its impact on society. The researchers want to see if the Quezon City Hall employees agree with the green building projects despite its primarily disadvantage, which is that it is more costly.

Literature Review

Green Building Programs in Different Countries

There are different methods used to implement green building programs in various countries in Asia, Europe, the United States, Australia, and other parts of the world, which are as follows: BREEAM, LEED, Green Star, Green Building Index, and Green City Model. These methods have been enumerated and discussed in an article published by Sahamir & Zakaria (2013) and Peng, Chen, Liu, & Wang (2008).

BREEAM (Building Research Establishment's Environmental Assessment Method) is the leading and most widely used environmental assessment method for buildings. Developed in the United Kingdom in 1990, it is the building ecological assessment method with the longest track record (Nguyen, 2011). BREEAM can assess the environmental performance of any type of building, new and existing, anywhere in the world. However, BREEAM for healthcare buildings was commissioned by the Department of Health and Welsh Health Estates, replacing NEAT (NHS Environmental Assessment Tool) as the preferred environmental assessment method and certification scheme for healthcare buildings in the United Kingdom. As part of the Outline of Business Case approval, all health authorities in the United Kingdom (i.e. Department of Health) require that all new builds achieve an Excellent rating and all refurbishments achieve a Very Good rating under BREEAM Healthcare (BREEAM, 2011).

LEED (The Leadership in Energy and Environmental Design) green building rating system, developed by the United States Green Building Council (USGBC) in 1998, provides a suite of standards for environmentally sustainable



construction. Since its inception in 1998, LEED has grown to encompass more than 14,000 projects in the US and 30 countries, covering 99 billion m² of development area (LEED, 2012). As an internationally recognized mark of excellence, LEED provides building owners and operators with a framework for identifying and implementing practical and measurable green building design, construction, operations, and maintenance solutions. Currently, with 10.1 billion square feet of building space participating in the suite of rating systems and 1.5 million feet certifying per day around the world, LEED is transforming the way built-environments are designed, constructed, and operated (LEED, 2010).

The needs of healthcare facilities are very unique. Healthcare buildings often have strict regulatory requirements, 24/7 operations, and specific programmatic demands that are not covered in LEED for New Construction. Thus, the LEED for Healthcare rating system acknowledges these differences by modifying existing credits and creating new, healthcare-specific credits. The goal is to help promote healthful, durable, affordable, and environmentally sound practices in the projects (Green Star Healthcare, 2011).

The GREEN STAR rating system has built on existing systems and tools in the overseas market, including the British BREEAM system and the North American LEED system, by establishing individual environmental measurement criteria relevant to the Australian marketplace and ecological context. GREEN STAR is a voluntary environmental rating system for buildings in Australia. It was launched in 2002 by the Green Building Council of Australia. The system considers a broad range of sustainable issues while considering occupant health, productivity, and cost savings. The Green Building Council of Australia (GBCA) released the Green Star - Healthcare v1 tool on 15 June 2009 to support sustainable planning, design, and construction of high-performance healthcare facilities (Green Building Council Australia, 2009).

All of the above methods have been proven effective among Western countries; however, due to the Malaysian tropical climate, environmental and developmental context, cultural and social needs, a new method has been developed to suit Malaysia's weather and ecological structure. The GBI is based upon existing rating tools, such as the Singapore Green Mark and the Australian Green Star system, which have been extensively modified for the Malaysian application (Green Building Index, 2013).

Another method has been discussed in the article written by Chen, Liu, Peng, & Wang (2008). The CITYgreen model is an effective tool developed by American Forests for estimating the ecological benefits of green spaces and translating the abstract benefits into concrete economic values. Combined with high-resolution satellite images from which detailed ground data can be extracted, CITYgreen can assess the benefits of green spaces over large areas with reliable results.

As a result, CITYgreen has been widely used in more than 200 cities in the United States to guide public decisions about environmental management, land use, and reforestation. Not until recently did investigators and policy-makers in China draw attention to CITYgreen and apply it to assess the benefits of carbon fixation and tree growth modeling in Shanghai and Shenyang. However, since the design of CITYgreen is based on aspects of hydrology, meteorology, soil conditions, vegetation, and land use in an American natural and cultural context, the fundamental database cannot meet the requirements of green space studies in Chinese cities, and so most of the functions cannot be realized.

Based on a study of the framework and calculation principles of CITY green 5.0 on the assessment of carbon fixation and runoff reduction benefits, we determined appropriate parameters required for model processing, which were then combined with high-resolution images to calculate the ecological values of different land use types in the central city of Nanjing. The study may provide guidelines for urban planning, environmental improvement, and green space conservation. Based on the methods that have been enumerated, it is highly recommended that the Green Building Index (GBI) be followed, as Malaysia's climate and environmental structures resemble Quezon City's facade.

Research Objectives

This study aims to determine the potential of the Green City Building Program as a promotional tool to enhance the local tourism industry of Quezon City. Specifically, it seeks to:

1. Determine the attributes of the city's Green Building Program.
2. Identify how the attributes can be used as a promotional tool for establishments or businesses operating in the city.
3. Examine how the Green City Building Program is disseminated to the people of the city.
4. Identify the problems associated with implementing the Green City Building Program.



METHOD

Using a quantitative descriptive research design, the study selectively sampled 100 knowledgeable employees involved in the Green City Building Program. A survey served as the primary data-gathering instrument to assess the program's potential as a promotional tool for Quezon City's tourism industry. The survey consisted of a self-administered questionnaire distributed among employees of the Department of Building Officials within the local government. The completed survey questionnaires were subsequently tabulated and analyzed by the researchers.

DISCUSSION

Attributes of the city's green building program

All employees in Quezon City are informed about the Green City Building Program, which also reflects their perceptions of its objectives. Leading the list is environmental sustainability, with 77% of respondents emphasizing its importance. Following closely is the desire for a clean and green environment, with 64% of participants prioritizing this aspect. Many respondents, comprising 48%, associate the program with resource efficiency. Additionally, 40% view it as a means to reduce pollution, while 32% consider it a solution to global warming. A smaller percentage, approximately 23%, link the program to promoting tourism and waste reduction. Lastly, a mere 2% attribute the program to beautification efforts and energy conservation. Regarding support for the Green City Building Program, overwhelming agreement is evident among employees, with 98% expressing their support. However, there remains a minority, comprising 1% each, who either disagree or are unsure about their stance on the program.

Furthermore, the survey explores whether employees believe that the attributes of green buildings can serve as promotional tools for businesses operating in the city. The findings reveal that 91% of respondents agree that these attributes can indeed be utilized for promotional purposes. However, 7% of the respondents remain uncertain, and 2% disagree with this notion.

The study also sheds light on employees' perceptions of the attributes associated with Quezon City's green building program. Topping the list is environmental sustainability, with 82% considering it a key attribute. Biodiversity enhancement follows closely, with 54% acknowledging its significance. Energy efficiency and the use of eco-friendly building materials and specifications are both noted by 46% of respondents. Waste reduction is also highlighted, with 38% emphasizing its importance. Additionally, 31% of respondents believe the program contributes to creating "greener" tourist destinations. Finally, a small fraction, 3% or three respondents, include attributes such as environmental compliance, water efficiency, and awareness of globalization in their perception of Quezon City's green building program.

Attributes being used as "Promotional Tool" for establishments or businesses operating in the city

Assessing the employees' perceptions regarding the role of the green city building program in promoting Quezon City's tourism industry, an overwhelming majority, comprising 86% of the respondents, believe that the program serves as a promotional tool for the city's tourism industry. However, a minority of 4% do not share this viewpoint.

Furthermore, the survey explores whether employees believe that Quezon City's tourism industry will benefit from implementing green city-building programs. The majority, 80% of respondents, agree with this notion. Conversely, 9% or eight respondents are uncertain about the program's impact on the city's tourism industry, while 2% do not agree.

Additionally, insights into employees' perceptions of how green city building programs impact public health revealed that providing fresher air to breathe is considered essential by 82% of respondents. Stress reduction follows closely, with 51% of respondents recognizing its significance. Furthermore, 28% of respondents believe green city building programs reduce depression. Another aspect highlighted is the reduction of absenteeism due to health issues such as asthma, respiratory, and skin allergies, which is noted by 21% of respondents. Lastly, 7% of respondents mention additional benefits such as reducing air pollution waste, promoting efficiency, encouraging participation, and preserving water in waterways as ways green city building programs impact public health.



Moreover, insights are provided into the percentage and ranking of how employees perceive green city building programs to affect the environment. According to the findings, the top three ways in which the program is perceived to impact the climate are environmental sustainability (73%), followed by reducing pollution (62%), and addressing global warming (41%). Energy efficiency ranks fourth, followed by water reduction. Some employees also mention the reduction of carbon footprint and negligible environmental effects as additional considerations. Time For Change (2021) defines carbon footprint as the total amount of greenhouse gases produced to support human activities, usually expressed in equivalent tons of carbon dioxide.

Dissemination of the Green City Building Program to the people of the city

The findings indicate that 66% of the employees agree that the Green City Building Program of Quezon City is effectively disseminated to raise awareness among the city's citizens. Conversely, 9% of the employees express disagreement with this assertion, while 18% are uncertain about the adequacy of the program's dissemination. These figures suggest that the Quezon City government has successfully generated awareness among the city's residents.

The top three recommended methods for further disseminating the Green City Building Program of Quezon City are highlighted. The most favored approach is TV advertisement, with 73% of respondents supporting this method. Social network advertisement follows closely, with 61% of respondents endorsing its use. Publishing more Green City Building Program magazines is ranked third, with 33% of respondents advocating for this approach. Radio advertisement ranks fourth, trailed by fliers with 5%, while utilizing the program as part of a tourism initiative garners 17% of support, placing it in sixth position. Some employees also suggest providing seminars and incorporating green building principles into the Building Code as additional strategies for dissemination.

Problems associated with the implementation of the green city building program

The findings reveal that 91% of the employees agree that the Quezon City government is financially capable of implementing the Green City Building Program. Conversely, 2% of the employees express disagreement with this assertion, while 7% are uncertain about the city's financial capability for the program. Furthermore, it is highlighted that 58% of the employees agree that Green City building programs are perceived as too costly, which poses a significant challenge in implementing the program. Conversely, 27% of the employees disagree with this perception, while 15% are uncertain about the costliness of the program. This observation underscores the primary hurdle in implementing the Green City program: its perceived high cost. Among the 90 respondents, 34% explicitly identified various problems and issues in implementing Green City Building Programs. These include political factors, elections, documentary and implementation requirements, lack of knowledge and awareness, compliance with green building ordinances, community involvement, existing old buildings and establishments, and the ongoing maintenance of the program.

Recommendations on how the Green City Building Program can be a vital link between environmental sustainability and the local tourism industry

The data indicates that 66% of the employees believe people benefit from the Green City Building Program of Quezon City by enhancing clean and green surroundings. Additionally, a majority of employees agree that the program contributes to increased employee productivity (40%), improved employee attendance (30%), and reduced stress (30%). Some employees also cited benefits such as promoting awareness, helping mitigate global warming, improving health, and creating a healthier environment. However, there is one employee who believes that there are no benefits from the program. Furthermore, 41% of the employees consider providing more training and seminars for employees as the primary recommendation to the government for coping with the implementation of the Green City Building Program. Other key recommendations include enhancing biodiversity (38%), promoting and supporting the tourism industry (36%), encouraging community involvement (32%), implementing more Information, Education, and Communication (IEC) activities (26%), increasing tax collection (17%), and conducting more advertisements (16%). Additionally, four employees recommended suggestions such as creating a better environment, stricter implementation of ordinances, conducting further studies, and increasing incentives for employees within the Quezon City Government to cope with the program's implementation.



Of the respondents, 28% proposed ideas to enhance the Green City Building Program as a promotional tool for the city's tourism industry. These suggestions include advocating for stricter compliance regarding implementations, disseminating the benefits and advantages of green city building programs to citizens, promoting awareness through seminars and training sessions, ensuring hotels comply with the Green Building Ordinance, implementing rooftop gardens, initiating urban planning projects by the government, establishing green districts in barangays, and allocating separate funds specifically for the program. The study's findings underscore the primary objective of the Green City Building Program of Quezon City, which is to prioritize environmental sustainability while benefiting the local populace. Singh, Syal, Grady, and Korkmaz (2010) note that green building initiatives positively impact employee efficiency as they create cleaner and fresher workplaces that mitigate absenteeism due to health issues such as asthma, respiratory and skin allergies, stress, and depression. This assertion is substantiated by the data presented in Table 5A on page 51, which unequivocally demonstrates that individuals derive tangible benefits from Green City programs, including enhanced clean and green surroundings, increased employee productivity, and reduced stress.

Moreover, the Green City Building Program of Quezon City extends beyond environmental sustainability to catalyze promoting the city's tourism industry. The program leverages attributes such as environmental sustainability, Biodiversity Enhancement, Energy Efficiency, and Eco-friendly Preferable Buildings as promotional tools. These tools exemplify how tourism facilities can embrace green practices, as evidenced by landmarks like Robinsons Magnolia on Aurora Boulevard, Quezon City. By showcasing these attributes, the program not only addresses the challenges of climate change but also fosters the recognition of green tourism, thereby contributing to the success of the city's tourism industry.

Conclusions

1. The findings of this research highlight the potential of the Green City Building Program as a promotional tool to bolster the local tourism industry of Quezon City. By focusing on environmental protection and improving public health, the program can attract visitors through the provision of a clean and green environment, thereby enhancing the city's appeal to tourists.
2. The study indicates widespread awareness of the Green City Building Program among the populace of Quezon City. Respondents overwhelmingly identify attributes such as environmental sustainability, biodiversity enhancement, energy efficiency, and eco-friendly building materials as integral components of the program. While the majority express support for the program, there remains some uncertainty and dissent among certain population segments.
3. Overall, the results suggest that the majority of employees perceive the Green City Building Program as a catalyst for promoting Quezon City's tourism industry. There is a consensus among respondents that the program contributes positively to the city's tourism prospects. Furthermore, many employees believe that the program positively impacts public health by providing a fresher air quality. Environment sustainability is widely recognized as the primary means by which the program influences the environment.
4. The research affirms that the Quezon City Green Building Program has been effectively disseminated to raise awareness among the city's residents. Additionally, employees believe that further dissemination can be achieved through television and social media advertisements, highlighting the importance of these platforms in reaching the wider populace.
5. While a considerable portion of respondents believe that the Quezon City government is financially capable of implementing the Green City Building Program, concerns about its high cost persist among the majority. Despite this, there are differing opinions regarding whether the program's costliness poses a significant obstacle to its execution.

Recommendations

Recommendations stemming from these findings include prioritizing the enhancement of clean and green surroundings and increasing employee productivity as key benefits of the Green City Building Program. Furthermore, the majority of employees advocate for the Quezon City government to conduct more seminars or training sessions for employees to enhance their knowledge about the program, thereby empowering them to advocate for the adoption of green building practices.



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Work Accident Reduction through the Use of the Lean Six Sigma Methodology at a Selected Hospitality Facility in Pasay City

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Abstract

Aim: Occupational health and safety (OSH) is critical in safeguarding workers from workplace hazards, preventing occupational diseases, and promoting overall well-being. In the Philippines, Republic Act 11058, enacted in 2017, establishes comprehensive OSH standards, including workers' rights to a safe working environment, the right to refuse unsafe work, and access to personal protective equipment. Despite these regulations, significant workplace accidents and injuries persist, with 38,235 accidents and 46,283 injuries reported in 2017, primarily in the manufacturing sector. The hospitality industry, which includes tourism, gastronomy, entertainment, and accommodation, also faces unique health and safety challenges due to diverse and frequent interactions with potential hazards. Ensuring the health and safety of workers in all work-related processes is a fundamental objective of occupational health and safety (OSH) practices. This research explored the application of the Lean Six Sigma methodology to enhance OSH practices within a hospitality facility in Pasay City.

Methodology: An applied research methodology was used in the study. Applied research, according to Bakke and Claudio 2023, is a form of systematic inquiry that focuses on practical, real-world problems. The goal is to solve specific issues or improve existing processes and practices by applying existing theories, knowledge, and methodologies. Applied research is directly relevant to practical applications in various fields such as business, education, engineering, health, and social sciences, (Bakke & Claudio, 2023; Drohomerski et al., 2014). In addition, this study implemented the Lean Six Sigma methodology to reduce work accidents at the selected hospitality facility.

Results: The results of this study are divided into five phases, aligned with the DMAIC process of the Lean Six Sigma Methodology, incorporation of the necessary tools for process definition and assessment. The first phase, Define, established the scope of the problem by identifying key areas of concern. The second phase, Measure, presented and analyzed Company X's Monthly severity rate and Accident Lost Days per Million for the year 2022. The third phase, Analyze, examined the occurrence of workplace accidents and illnesses, identifying general trends and highlighting potential areas for improvement in the company's accident and incident management practices. The fourth phase, Improve, translated the identified root causes into specific objectives and implemented enhancements to company's accident reduction program. Finally, the Control phase outlined the activities and workplace programs that must be sustained to ensure the continued achievement of workplace accident reduction objectives.

Conclusion: Through an in-depth analysis of the root causes, the study identified critical areas for improvement. The development and implementation of a work accident reduction program based on Lean Six Sigma principles led to significant enhancements in working conditions and accident prevention measures. Ultimately, the study demonstrated that the program effectively controlled the occurrence of accidents and reduced their severity, contributing to a safer work environment in the facility.

Keywords: Occupational health and safety, Hazards, Lean Six Sigma, Workplace accident & hospitality

INTRODUCTION

All workers should have their health and safety at work safeguarded, as they conduct all work-related processes. In this regard, the field of occupational health and safety (OSH) is developed, which primarily aims to protect workers from hazards that may arise in the workplace, prevent the occurrence of occupational diseases, promote overall health and well-being while at work, and place the worker in a working environment adapted to their capabilities. To ensure that OSH is adequately and appropriately implemented in all workplaces, all countries have laws that translate to policies, programs, and services that ensure OSH provision and maintenance. The Philippines, specifically, has Republic Act 11058, which is the country's OSH law (Candelario et al., 2024). Implemented in 2017, the law delineates general OSH provisions, among which are those that reiterate the worker's rights to a safe workplace, including the right to refuse unsafe work, the right to report accidents, and the right to the provision of personal protective equipment.

Despite implementing the OSH law, and workplaces in the country having their own OSH policies and programs that are compliant and committed to decreasing workplace accidents and injuries, there is still an effort



needed to protect workers from unsafe work processes (Lu, 2022). This same study cites the incidence of occupational accidents at 38,235 cases in 2017 and a further higher number of occupational injuries at 46,283 cases, with the manufacturing industry reporting the bulk of these accidents and injuries. Moreover, the study also mentions that the leading causes of occupational injuries among workers were stepping on, striking against, or being struck by objects (excluding falling objects).

The hospitality industry encompasses various sectors, including tourism, gastronomy, entertainment, and accommodation facilities, which provide service trades to their clientele (Agunos et al., 2022). This industry is not exempt from workplace health and safety hazards, as they can be exposed to these in all aspects, whether from handling food, serving guests, or cleaning their premises (Huang et al., 2018; Rosemberg et al., 2019). Therefore, a comprehensive Occupational Safety and Health (OSH) program must be established in these industries to cover all health and safety risks identified by the safety organization of each facility. This program should be both responsive and proactive, addressing these risks effectively and implementing measures to minimize the likelihood of encountering them in the future. In this regard, many comprehensive program planning and implementation methodologies can be used, but one of the most renowned is the Lean Six Sigma method. This fact-driven method focuses on reducing work process variation and enhancing process control while removing non-value-added processes and procedures, thereby promoting an overall standardization of workflow. This protocol explores the application of the Lean Six Sigma methodology in reducing work accidents in a selected hospitality facility in Pasay City, consistent with the facility's effort to commit to improving working conditions through upholding workplace health and safety.

Objectives

The study generally aims to determine the effects of the Lean Six Sigma methodology in the reduction of workplace accidents in a selected hospitality facility in Pasay City. Specifically, the protocol aims to:

1. Define the current conditions relevant to the occurrence of work accidents in the selected hospitality facility.
2. Measure data relevant to the estimation of the severity of work accidents at the facility and its impact on the facility's work processes.
3. Analyze the root causes of persisting work accidents based on the facility's work accident database.
4. Improve working conditions and accident prevention measures through the development of a work accident reduction program; and
5. Determine how the work accident reduction program controlled the occurrence and lowered the severity of workplace accidents in the facility.

METHODS

Research Design

The researcher used applied research in this study. Applied research, according to Bakke and Claudio is a form of systematic inquiry that focuses on practical, real-world problems. The goal is to solve specific issues or improve existing processes and practices by applying existing theories, knowledge, and methodologies. applied research is directly relevant to practical applications in various fields such as business, education, engineering, health, and social sciences, (Bakke & Claudio, 2023; Drohomerski et al., 2014). In addition, this study implemented the Lean Six Sigma methodology to reduce work accidents at the selected hospitality facility.

Population and Sampling

The participants of the study were current employees of Company X involved in the accident cases together with the researcher. This study also included the Health, Safety and Environment (HSE) Managers, Assistant Managers, Supervisors, Safety Officers and company's HSE Committees.

Instrument

The main instruments used by the researcher for data gathering were:

1. Monitoring of accident/ incident reports and records- This instrument involves systematically tracking, recording, and analyzing incidents or accidents that occur within the hospitality facility in this study. This also included the doctor clinic assessments.



2. Accident/Incident investigation reports- this is a more comprehensive document used for each accident logged in the monitoring, this involved interview with the victim, involved parties and their team leader, supervisor, HSE committee representative and manager.
3. Health and Safety committee minutes of the meeting -all raised concerns during the monthly meeting related to the accident occurrences for year 2022 had been checked and verified.

Data Collection

The initial step taken by the researcher to conduct this study was to request through the company through e-mail and was allowed following that the researcher will follow all ethical considerations, particularly company's confidentiality. Afterwards, researcher agreed to the company's request and given the approval to review the records of the work accident monitoring records, accident/incident investigation records and all Health and Safety committee minutes of the meeting. After a week, all data were summarized by the researcher and was presented to the Occupational Safety and Health manager and supervisor to which they agreed to aim an accident reduction of 5% from the previous year and aim the objective of the study. In a span of one month, the root cause analysis for each data were identified and in another two weeks the researcher had created a proposed workplace safety program, this was discussed again to Occupational Safety and Health manager and supervisor and they were able to agree on the safety program, given that Company X already has an approved budget at the beginning of each year due to the requirement under Department of labor and employment (DOLE), thus, the required amount for this study did not become an issue, following all the target completion of each safety program the researcher continued to monitor the result by getting the monthly severity rate thus, at the end of the year were able to fully implement all the Workplace safety program.

Data Analysis

For the analysis and presentation of the study data, they were analyzed with the aid of the following tools:

Severity Rate: The Department of Labor and Employment (DOLE) in the Philippines uses a specific formula to compute the severity rate of workplace injuries. The severity rate is a measure of the seriousness of injuries by calculating the number of lost workdays per 1,000,000 hours worked. In this study this was used as a metric for the company to determine the safety status of Company X; this particularly determines how critical or serious the effects of an injury or illness are. This is computed by number of lost workdays x (number of employee headcount x total working hours per employee) / Total number of hours worked by employees. This helped the researcher to determine the total lost workdays due to workplace injuries.

Control Chart: This tool is used to track process data over time and identify any unusual variations that may indicate problems. In this study, this was utilized by the researcher to monitor the trend of severity rates (likely to refer to workplace accidents or incidents) monthly. The control chart helped in identifying any variations or trends that might indicate issues in the safety processes. If the chart showed that certain controls or measures were exceeding acceptable limits, it signaled the need for further analysis and potential adjustments to prevent future accidents.

Ishikawa Diagram (Cause and Effect Analysis): This method was used to delve into the root causes of identified workplace accidents. The causes were categorized into six key areas: equipment, process, people, materials, environment, and management. This categorization helped in systematically analyzing each factor's contribution to the accidents, making it easier to pinpoint specific issues.

Problem Tree Diagram: Stakeholders and program planners utilized the problem tree diagram as a complement to the Ishikawa diagram. This tool helped visualize the positioning of the identified causes from the Ishikawa diagram, and it illustrated the immediate, medium, and long-term safety and health effects of these causes on employees. This method was crucial for strategic planning and for understanding the broader impact of the identified issues.

Logical Framework Analysis (LFA): LFA was applied to the entire process of implementing, monitoring, and evaluating the workplace safety program. It provided a structured approach to planning and managing the program, ensuring that all aspects were thoroughly considered, and that the program's progress could be effectively tracked and assessed.

Hazard Identification and Risk Control (HIRAC): It's a systematic approach used to identify and minimize potential hazards in the workplace. The method was used to conduct a thorough inspection of the workplace to identify any factors that could pose a risk to employees' health and safety and thus was used to assess the level of risk associated with each identified hazard in terms of evaluating the likelihood and severity of the potential harm



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that could occur. Lastly, use it to implement control measures to eliminate or minimize the identified hazard.

Paired T-test (Dependent T-test): This statistical method was used to compare the severity rates of workplace incidents between the years 2022 and 2023. The paired t-test allowed the researchers to determine if there was a statistically significant difference in the severity rates from one year to the next, which would indicate whether the safety program had an impact.

In summary, these tools and methods were systematically used to analyze workplace safety data, identify root causes of accidents, plan interventions, and assess their effectiveness over time.

Ethical Consideration

The company approved and required the researcher to conform to the ethical conduct of research studies as well as the Data Privacy Act of 2012, thus, all sensitive personal information will not be collected in the process of the review of related records. The company's identity and some geographical characteristics (which can make it distinguishable) will also not be disclosed to protect the privacy and confidentiality of the company to be studied. As much as possible, the proponent will collect data electronically to minimize the generation of written records, which can pose a high risk of being misplaced or lost and would consequently lead to the discovery of any information written in the record.

RESULTS and DISCUSSION

The results of this study are divided into five phases consisting of each step in the DMAIC process of the Lean Six Sigma Methodology, including all the needed tools to complete the definition and assessment of these processes.

1. Define Phase

The information about the project is presented in the project charter below,

Project Name	
Workplace Accident Reduction Program for Company X	
Business Case	
Since the same areas report with more frequent work-related accidents, there needs to be a concerted effort to improve the work processes in these areas in such a way that work-related accidents will be lessened after this program is implemented.	
Problem/Opportunity:	Scope, Constraints, Assumptions
This program is expected to deliver two (2) periodic training programs, one for increasing awareness of the company's workplace safety and health culture and one for the improved SOPs in the facility areas to be addressed. This program is also expected to deliver the improved SOPs of the targeted facility areas for the training of these SOPs to be realized. This program will not be responsible for any SOP improvements done outside the targeted facility areas, but this program can be expanded in future implementations to include other facility areas depending on the health and safety committee's regular monitoring of	Once implemented, this program will constitute a substantial part of the workload of the facility's HSE committee, and as such, the resources of this committee will be fully mobilized, and the realization of the program's objectives will be dependent on the performance of this committee overall. It is assumed that the program will be readily approved by the management since there is a need to comply with Zero Accident policies as delineated in the occupational safety and health programs of the Department of Labor and Employment.



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workplace accidents.			
Goal		Team Members:	
To decrease the severity of work accidents reported at the food and beverage, culinary, housekeeping, and table games sections by 5% per section per year in two years.		Company X Health, Safety, and Environment Committee	
Preliminary Project Plan		Target Date	Actual Date
Define		Oct 2022	Oct 2022
Measure		Oct 2022	Oct 2022
Analyze		Nov 2022	Nov 2022
Improve		Dec 2022	Dec 2022
Control		Jan-Dec 2023	Jan-Dec 2023
Prepared by	M. De Guzman	Approved by:	Confidential

The hospitality facility to be studied (Company X) is in Pasay, an area in which there are also many other hospitality facilities because one of the international airports of the Philippines is in this area as well. The hospitality facility also houses an area for gaming, which is one of the more well-known amenities of this facility. Figure 2 provides a diagram that summarizes these processes. In this diagram, the suppliers for the facility's hotel, restaurant, and gaming services, as well as its different service providers, are listed in the 'Suppliers' part of the diagram, while the 'Input' part constitutes The hospitality facility to be studied (Company X) is in Pasay, an area in which there are also many other hospitality facilities because one of the international airports of the Philippines is in this area as well. The hospitality facility also houses an area for gaming, which is one of the more well-known amenities of this facility.

As the hazard identification, risk assessment, and control (HIRAC) forms recorded per department show, the facility is divided into three main departments. This section will discuss all these departments in detail, including the work processes observed in these areas. The demonstrated SIPOC diagram verifies that work accidents usually happen during the conduct of work processes (Huang et al., 2018).



Supplier	Input	Process	Output	Customer
Suppliers of hotel materials and equipment Suppliers of restaurant materials and equipment Suppliers of gaming equipment	Hotel materials and equipment Gaming equipment Office supplies, materials, and equipment	Hotel accommodations Resort operations Administrative services Gaming operations	Customer-oriented services (hotel and restaurant accommodations, gaming services)	Hotel and resort guests Restaurant guests Gaming area guests Event guests
Providers of engineering services Providers of construction services Providers of preventive maintenance services			Internal services (administration, construction, preventive maintenance)	
			External services (marketing, stakeholder relations)	Internal and external hotel stakeholders

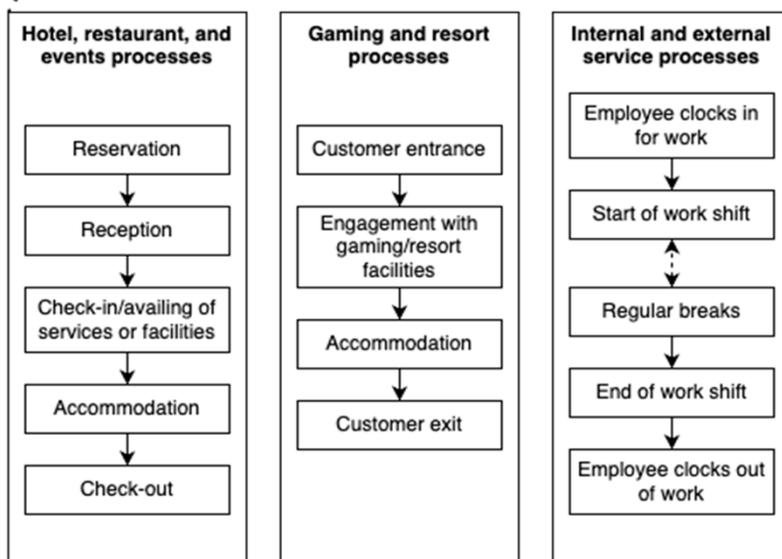


Figure 2. SIPOC Diagram of the Work Processes of Company X

Conclusions

This study successfully achieved its objectives by investigating the effectiveness of the Lean Six Sigma methodology in reducing workplace accidents within a selected hospitality facility in Pasay City. The research provided a comprehensive assessment of existing safety conditions, identified critical risk factors, and measured the severity of work-related incidents in Company X. Through the collection and analysis of relevant data, the study presented a clear understanding of the challenges faced by the facility and the extent of occupational injuries.

Root cause analysis, guided by severity metrics, revealed the underlying contributors to recurring accidents. This data-driven approach supported the development and implementation of a targeted intervention program based on Lean Six Sigma principles. The program led to measurable improvements in both working



conditions and safety outcomes. A notable decrease in the severity rate from 2022 to 2023 underscored the effectiveness of the initiative in reducing workplace accidents and fostering a safer environment.

Overall, the application of Lean Six Sigma not only accomplished the goal of minimizing incidents but also introduced a structured framework for continuous improvement in occupational safety and health (OSH) practices in the hospitality industry.

Recommendations

Building on these findings, future research is encouraged to conduct a follow-up assessment in Company X to evaluate the long-term impact and sustainability of the implemented safety program. This would further validate the DMAIC approach as a valuable tool in OSH applications. Researchers may also explore additional diagnostic and planning tools beyond the Ishikawa diagram, problem tree, and logical framework analysis, depending on their expertise and preference. Finally, it is recommended that the Lean Six Sigma methodology be applied to a larger sample of hospitality facilities across the country. Doing so would not only help validate the effectiveness of this approach in diverse settings but also uncover unique safety challenges within the industry, contributing to broader, data-informed improvements in workplace safety nationwide.

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Tabuk City's initiatives to local businesses towards now normal

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Abstract

Aim: This study examined the initiatives of the Local Government Unit (LGU) of Tabuk City that supported micro, small, and medium enterprises (MSMEs) during the transition to the "Now Normal" following the COVID-19 pandemic.

Methodology: A mixed-method research design was employed, integrating qualitative interviews with LGU program implementers and quantitative survey responses from local business owners. Six LGU-supported programs were assessed: Go Lokal, COVID-19 Assistance to Restart Enterprises (CARES), RiseUp Tindahan Loan, RiseUp Multipurpose Loan, Youth Entrepreneurship Program, and the Kapatid Mentor Me Program. Data were analyzed using descriptive statistics and documentation analysis.

Findings: Results revealed that the Go Lokal Program demonstrated the highest level of effectiveness, reflecting strong market linkage and local product promotion. In contrast, the RiseUp Multipurpose Loan Program obtained the lowest effectiveness rating, primarily due to business owners' preference for cooperative-based financing. Overall, the findings indicate that LGU-led initiatives played a meaningful role in supporting MSME recovery during the post-pandemic period.

Conclusion: The study concluded that the LGU of Tabuk City significantly contributed to MSME resilience and local economic recovery during the Now Normal. Programs emphasizing market access and capacity-building were most effective, while financial assistance programs require improved accessibility and awareness to enhance their impact.

Keywords: MSMEs, LGU initiatives, business recovery, Now Normal, Tabuk City

INTRODUCTION

The outbreak of Coronavirus Disease 2019 (COVID-19) marked one of the most significant global health crises in modern history. First identified in December 2019 in Wuhan City, Hubei Province, China, the disease was caused by the novel Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) (World Health Organization [WHO], 2020a). The rapid transmission of the virus across continents led the World Health Organization to declare COVID-19 a Public Health Emergency of International Concern on January 30, 2020, and subsequently a global pandemic on March 11, 2020 (WHO, 2020b).

Beyond its health implications, COVID-19 generated profound disruptions across global socio-economic systems, affecting governance, education, labor, and economic activities (United Nations Development Programme [UNDP], 2021). Governments worldwide implemented lockdowns, mobility restrictions, and public health protocols to mitigate viral transmission. While necessary, these measures severely constrained economic activities, particularly for small business sectors, and reshaped development planning and public administration priorities (Organisation for Economic Co-operation and Development [OECD], 2021).

In the Philippine context, nationwide community quarantines implemented in March 2020 significantly altered daily life and institutional operations (Department of Health [DOH], 2020). Structural vulnerabilities—such as poverty, limited health care capacity, and high population density—further intensified the country's exposure to the socio-economic consequences of the pandemic (World Bank, 2020). Among the most affected sectors were micro, small, and medium enterprises (MSMEs), which account for more than 99 percent of registered business establishments and serve as critical drivers of employment generation, rural development, and poverty reduction (Department of Trade and Industry [DTI], 2022).

Despite their central role in economic development, MSMEs faced severe challenges during the pandemic, including forced closures, declining demand, liquidity constraints, and workforce displacement (OECD, 2020; World Bank, 2021). Under Republic Act No. 9501, MSMEs are classified based on asset size and number of employees, highlighting their diverse capacities and vulnerabilities (Republic Act No. 9501, 2008). Although national policies and recovery programs were implemented to support MSMEs, existing literature indicates that business recovery outcomes varied widely, particularly between urban and rural areas.

In Tabuk City, Kalinga, the pandemic resulted in temporary business shutdowns, reduced income streams, and operational instability among local enterprises. In response, the Local Government Unit (LGU) implemented several initiatives aimed at supporting MSMEs during the transition to the "Now Normal," a period characterized by



gradual economic reopening under sustained public health measures. While national and international studies have extensively examined MSME resilience and recovery strategies, empirical evidence on localized LGU-driven interventions in rural Philippine cities remains limited.

This gap underscores the need for systematic evaluation of LGU initiatives at the community level. Unlike previous studies that focus on national recovery frameworks or urban business environments, the present study examines the effectiveness of Tabuk City's LGU-implemented programs using a mixed-method approach that integrates the perspectives of both implementers and business owners. By providing localized empirical evidence, the study contributes to the academic discourse on MSME recovery, informs local governance and policy formulation, and offers practical insights for strengthening entrepreneurial resilience in rural communities during post-pandemic transitions.

Review of Related Literature and Studies

Global and Regional Economic Impacts of the COVID-19 Pandemic

The COVID-19 pandemic triggered unprecedented disruptions across global and regional economies, significantly affecting consumption, production, and employment patterns (Fernandes, 2020; Baker et al., 2020). Scholars emphasize that pandemics function not only as public health crises but also as catalysts for widespread economic, social, and political instability (Prawoto et al., 2020). Declining consumer demand, supply-chain disruptions, and business closures resulted in heightened unemployment and income insecurity, particularly among small enterprises with limited financial buffers (Ozili & Arun, 2020; OECD, 2020).

Across regions, micro, small, and medium enterprises (MSMEs) were disproportionately affected due to their constrained access to capital, limited risk absorption capacity, and dependence on daily operations for survival (Aparecio & Torrejas, 2024). Studies from Indonesia documented substantial revenue losses among small enterprises due to mobility restrictions and market disruptions (Baker et al., 2020; Sharif et al., 2020). Similarly, in the Philippines, strict lockdown measures such as the Enhanced Community Quarantine (ECQ) led to widespread business closures, job losses, and operational paralysis, particularly among informal and micro-scale enterprises (Department of Health [DOH], 2020; Talabis, 2021).

While global economic recovery began in late 2020, reports from the World Bank (2020, 2021) indicate that MSMEs continued to face persistent challenges, including limited access to finance and weakened consumer demand. The Organisation for Economic Co-operation and Development (OECD, 2021) further highlighted that sustainable post-pandemic recovery requires targeted interventions at both national and local levels, particularly those that strengthen entrepreneurship ecosystems, digital transformation, and inclusive growth.

Local Government and Institutional Initiatives Supporting MSMEs in the Philippines

In the Philippine context, MSMEs play a critical role in sustaining local economies, generating employment, and promoting inclusive development. Recognizing their vulnerability during the pandemic, national agencies and local government units (LGUs) implemented various recovery and resilience programs to mitigate economic losses and support business continuity (Department of Trade and Industry [DTI], 2021, 2023; Small Business Corporation [SB Corp], 2022, 2023).

Among the major interventions was the COVID-19 Assistance to Restart Enterprises (CARES) Program, implemented by the Small Business Corporation as the financing arm of the DTI. The CARES Program provided interest-free and collateral-free loans to pandemic-affected MSMEs, initially targeting micro and small enterprises and later expanding coverage to medium enterprises. Funded through the ₱11-billion allocation under the Bayanihan to Heal as One Act and the Bayanihan to Recover as One Act, CARES served as an accessible alternative to informal lending practices by offering fast and affordable microfinancing (SB Corp, 2022; World Bank, 2020).

Complementing CARES, the RiseUp Loan Programs were introduced to support MSMEs that survived the pandemic and required capital for sustained recovery. These programs include RiseUp Tindahan for retail MSMEs within fast-moving consumer goods supply chains and RiseUp Multipurpose Loans catering to enterprises across sectors, with loan amounts ranging from ₱10,000 to ₱5 million and repayment terms of up to three years (SB Corp, 2023). Additional initiatives, such as the RiseUp Turismo Program, extended support to tourism enterprises through interest-free and collateral-free loans with extended grace periods. According to the DTI (2023), these programs aimed to strengthen MSME resilience and position enterprises for post-pandemic growth.

Beyond financial assistance, the Youth Entrepreneurship Program (YEP), institutionalized under Republic Act No. 10679, focused on developing entrepreneurial competencies among young Filipinos through mentoring, training, and enterprise development initiatives (DTI, 2021). Similarly, Project KAPATID, through its Mentor Me component,



sought to enhance MSME competitiveness by providing structured mentorship, access to shared service facilities, and linkages to larger value chains (DTI, 2023).

Empirical and Theoretical Insights on MSME Resilience

Recent empirical studies emphasize that MSME recovery is strongly influenced by adaptive strategies, institutional support, and access to capacity-building opportunities. Santos et al. (2025) found that food service MSMEs in Iligan City adopted innovation, diversification, and digital transformation as key mechanisms for resilience. International evidence similarly underscores the importance of government-led support systems in facilitating MSME adaptation during crises (ILO, 2021).

Despite the growing body of literature on MSME resilience and national recovery programs, existing studies largely focus on urban settings or macro-level policy analysis. There remains limited empirical research examining localized LGU-driven interventions in rural contexts, particularly those that integrate both implementer and beneficiary perspectives. This gap highlights the need for context-specific evaluations that assess how LGU initiatives function at the community level and contribute to MSME recovery during the Now Normal period.

Theoretical Framework

This study is anchored on Resilience Theory, Local Governance Theory, and Institutional Support Theory, contextualized within Philippine national recovery policies and local implementation mechanisms.

Resilience Theory explains the capacity of systems, organizations, and individuals to absorb shocks, adapt to disruptions, and recover while maintaining core functions. In the context of MSMEs, resilience refers to enterprises' ability to adjust operations, adopt new strategies, and sustain livelihoods amid crises such as the COVID-19 pandemic (OECD, 2021; ILO, 2021). This theory underpins the study's focus on recovery outcomes and adaptive capacity among local businesses.

Local Governance Theory emphasizes decentralization, community responsiveness, and the strategic role of LGUs in addressing localized socio-economic challenges. LGUs possess contextual knowledge that enables them to design and implement targeted interventions aligned with local needs. This theory supports the examination of Tabuk City's LGU initiatives as context-specific responses to MSME disruptions during the Now Normal.

Institutional Support Theory posits that formal institutions influence organizational survival by providing access to resources, policy frameworks, and capacity-building mechanisms. In this study, LGU-implemented programs—such as CARES, RiseUp, Go Lokal, and Kapatid Mentor Me—are viewed as institutional mechanisms that shape MSME recovery trajectories.

These theories are reinforced by national policy frameworks, including the Bayanihan to Heal as One Act (RA 11469), Bayanihan to Recover as One Act (RA 11494), the Magna Carta for MSMEs (RA 9501), and Republic Act No. 9184 on government procurement. Local implementation is contextualized through Oplan Kalinga Memorandum No. 173 s. 2021 and relevant guidelines from the Office of Civil Defense (2020), which governed emergency response, procurement, and fund utilization at the local level.

Conceptual Framework

The conceptual framework illustrates the relationship between LGU initiatives and MSME recovery outcomes within the Now Normal context.

Independent Variable

Local Government Unit Initiatives for MSMEs, including:

- Go Lokal Program
- COVID-19 Assistance to Restart Enterprises (CARES) Program
- RiseUp Tindahan Loan
- RiseUp Multipurpose Loan
- Youth Entrepreneurship Program
- Kapatid Mentor Me Program

These initiatives represent financial, capacity-building, market linkage, and mentorship interventions.

Contextual Variable



The "Now Normal" environment following the COVID-19 pandemic, characterized by gradual economic reopening, adaptive business practices, and sustained public health measures.

Dependent Variable

MSME Recovery and Resilience, measured through:

- Perceived effectiveness of LGU programs
- Business continuity and operational stability
- Improved market access and product promotion
- Enhanced entrepreneurial skills and capacity development

Outcome

Strengthened local economic resilience and inclusive growth in Tabuk City.

Framework Explanation

The framework assumes that LGU initiatives directly influence MSME recovery by addressing financial constraints, skill gaps, and market access challenges. The Now Normal context moderates how these initiatives are accessed and perceived by business owners and implementers. This framework guided the formulation of research objectives, the selection of variables, the design of instruments, and the interpretation of findings, ensuring coherence across the study.

Statement of the Problem

The COVID-19 pandemic has profoundly disrupted local economies worldwide, forcing micro, small, and medium enterprises (MSMEs) to confront severe operational and financial challenges. In the Philippines, the MSME sector—accounting for over 99 percent of registered businesses—has been critical in driving employment and community development. However, the pandemic's prolonged restrictions have strained their capacity to survive and recover, particularly in rural cities such as Tabuk in Kalinga Province. In response, the Local Government Unit (LGU) of Tabuk City implemented several initiatives, including the *Go Lokal Program*, *COVID-19 Assistance to Restart Enterprises (CARES)*, *RiseUp Tindahan Loan*, *RiseUp Multipurpose Loan*, *Youth Entrepreneur Program*, and *Kapatid Mentor Me Program*, to support the local business sector in adapting to the "Now Normal."

Despite these efforts, there remains a lack of empirical evaluation on how effective these LGU programs have been in helping business owners recover, sustain operations, and build long-term resilience. Existing studies have largely focused on national recovery policies, leaving a gap in understanding localized strategies and their actual impact at the community level. Addressing this gap is vital for generating data-driven insights that can strengthen local governance, inform policy adjustments, and enhance MSME support mechanisms in future crises. Therefore, this study seeks to assess the initiatives of the LGU of Tabuk City towards local businesses during the Now Normal period and determine their perceived effectiveness from the perspectives of both implementers and business owners.

Research Objectives

General Objective:

To evaluate the initiatives of the Local Government Unit (LGU) of Tabuk City that support local businesses during the transition to the "Now Normal."

Specific Objectives:

1. To identify the programs implemented by the Local Government Unit (LGU) of Tabuk City to support local businesses in the Now Normal.
2. To evaluate the effectiveness of these programs as perceived by business owners and program implementers.
3. To determine whether there is a significant difference between the perceptions of business owners and implementers regarding program effectiveness.

Research Questions

This study sought to answer the following questions:

1. What programs has the Local Government Unit (LGU) of Tabuk City implemented to support local businesses in the Now Normal?



2. How effective are these programs as perceived by business owners and program implementers?
3. Is there a significant difference between the perceptions of business owners and implementers regarding the effectiveness of these programs?

Null Hypothesis:

There is no significant difference between the perceptions of business owners and program implementers regarding the effectiveness of LGU programs in Tabuk City during the Now Normal.

METHODS

Research Design

The study employed a mixed-methods research design, integrating qualitative and quantitative approaches to comprehensively evaluate the initiatives of the Local Government Unit (LGU) of Tabuk City in supporting local businesses during the Now Normal period. The qualitative component enabled in-depth exploration of program implementation processes and contextual factors through interviews with LGU implementers. The quantitative component measured the perceived effectiveness of LGU initiatives among business owners using survey data. This design was deemed most appropriate as it allowed triangulation of findings, where qualitative insights provided explanatory context for quantitative results, thereby enhancing the validity and completeness of the evaluation of localized MSME support initiatives.

Population and Sampling

The respondents of the study consisted of 70 participants, comprising 60 business owners and 10 LGU program implementers in Tabuk City, Kalinga. Business owners were selected from those with recently renewed permits registered at the LGU Tabuk City Business Permits and Licensing Office. They were chosen through simple random sampling using the fishbowl technique, ensuring that each permit holder had an equal chance of selection.

LGU program implementers were selected using purposive sampling, as they served as the primary coordinators or focal persons of the six identified LGU programs. This sampling approach ensured that all key informants directly involved in program implementation were included, providing comprehensive qualitative insights without redundancy.

Respondents	Number	Percentage
Business Owners	60	86%
Program Implementers	10	14%
Total	70	100%

Instruments

Two researcher-made instruments were utilized. For the qualitative component, a semi-structured interview guide was developed to elicit information on LGU initiatives, implementation processes, and program challenges. For the quantitative component, a survey questionnaire using a 4-point Likert Scale was designed to assess the perceived effectiveness of LGU programs among business owners.

Both instruments were developed based on the study objectives and related literature. Content validation was conducted by three subject matter experts with backgrounds in public administration, business management, and research methodology. The validators reviewed the instruments for clarity, relevance, and alignment with the research objectives. Revisions were made based on their recommendations to improve content validity and methodological consistency.

Data Collection

Data collection was conducted in Tabuk City, Kalinga after securing permission from the LGU offices concerned. Qualitative data were gathered through face-to-face interviews with LGU program implementers at their respective offices. Each interview followed the semi-structured guide and focused on program identification and implementation experiences during the Now Normal.

Quantitative data were collected through self-administered survey questionnaires distributed to business owners with renewed permits. Data collection was conducted over a scheduled period to ensure adequate response rates. All respondents were briefed on the purpose of the study prior to participation.



Data Analysis

Qualitative data were analyzed using documentation and thematic analysis, wherein interview responses were transcribed, coded, and categorized to identify recurring themes related to LGU initiatives and implementation practices.

Quantitative data were analyzed using descriptive statistics, specifically frequency counts, weighted means, and percentages. A 4-point Likert Scale was employed to interpret the effectiveness of LGU programs using the following scale:

Statistical Limit	Descriptive Equivalent
3.25–4.00	Highly Effective
2.50–3.24	Effective
1.75–2.49	Less Effective
1.00–1.74	Not Effective

To determine whether there was a significant difference between the perceptions of business owners and program implementers, an appropriate inferential statistical test was applied at a 0.05 level of significance.

Integration of qualitative and quantitative findings was achieved through triangulation, where qualitative insights were used to explain and validate quantitative results.

Ethical Considerations

Ethical standards were strictly observed throughout the conduct of the study. Permission to conduct the research was obtained from the relevant LGU offices in Tabuk City. Informed consent was secured from all participants after explaining the study's purpose, procedures, and voluntary nature of participation. Confidentiality was maintained by excluding personal identifiers from the data, and all collected information was stored securely and accessed only by the researchers. All sources used in the study were properly cited to uphold academic integrity.

RESULTS AND DISCUSSION

This study employed a mixed-method research design integrating qualitative and quantitative approaches to assess the effectiveness of Local Government Unit (LGU) initiatives supporting local businesses in Tabuk City during the Now Normal period.

Effectiveness of LGU Programs as Perceived by Implementers

Table 1a. Level of effectiveness of the programs towards Now Normal as perceived by the implementers.

Programs	Mean	Description
A. Go Lokal Governments programs.	3.80	HE
B. Covid-19 Assistance to Restart Enterprises (CARES Program)	3.20	E
C. RiseUp Tindahan Loan	2.90	E
D. RiseUp Multipurpose Loan	2.80	E
E. Youth Entrepreneur Program	3.30	HE
F. Kapatid Mentor Me Program helps with this by providing MSME's free education and training and then assists them by linking them to bigger companies.	3.20	E
Average	3.20	E

Table 1a presents the level of effectiveness of LGU programs as perceived by program implementers. The overall weighted mean of 3.20 indicates that the programs were perceived as effective. Among the initiatives, the Go Lokal Program obtained the highest mean (3.80), interpreted as highly effective. This finding suggests that market linkage initiatives significantly enhanced local product promotion through partnerships with national retail establishments such as Ayala Malls, Rustan's, Duty-Free Philippines, and Robinsons Malls.



This result aligns with the objectives of the One Town One Product (OTOP) program, which promotes locally rooted products by leveraging community resources and cultural identity (Department of Trade and Industry [DTI], 2022). Local products such as Kalinga Brew Coffee and traditional Kalinga weaving gained wider exposure, including access to external and international markets.

The Youth Entrepreneurship Program also obtained a high effectiveness rating (mean = 3.30). This program supported young entrepreneurs by enhancing entrepreneurial skills through training and mentoring, particularly during the surge of online selling activities on digital platforms such as Facebook and TikTok during pandemic lockdowns. These findings support earlier studies emphasizing digital adoption as a resilience strategy among MSMEs (ILO, 2021; OECD, 2021).

Conversely, the RiseUp Multipurpose Loan Program registered the lowest effectiveness rating (mean = 2.80). Although still classified as effective, implementers noted limited uptake due to business owners' preference for cooperative-based loans, which were perceived as more accessible for short-term financial needs.

Effectiveness of LGU Programs as Perceived by Business Owners

Table 1b. Level of effectiveness of the programs towards Now Normal as perceived by the Business Owners.

Programs	Classification of Business				Over-all	
	Micro		Small			
	Mean	D	Mean	D	Mean	D
A. Go Lokal Governments programs.	3.61	HE	4.00	HE	3.81	HE
B. Covid-19 Assistance to Restart Enterprises (CARES Program)	3.25	HE	3.00	E	3.13	E
C. RiseUp Tindahan Loan	3.02	E	3.00	E	3.01	E
D. RiseUp Multipurpose Loan	2.69	E	3.00	E	2.85	E
E. Youth Entrepreneur Program	3.34	HE	3.00	E	3.17	E
F. Kapatid Mentor Me Program helps by providing MSME's free education and training and then assists them by linking them to bigger companies.	3.42	HE	3.00	E	3.21	E
Average	3.22	E	3.17	E	3.19	E

Table 1b presents the perceptions of business owners regarding program effectiveness. The overall weighted mean of 3.19 indicates that LGU initiatives were generally effective in supporting businesses during the Now Normal. Consistent with implementers' perceptions, the Go Lokal Program received the highest overall rating (mean = 3.81), reinforcing its strong impact on market exposure and product promotion.

The Kapatid Mentor Me Program followed closely, with business owners reporting improved managerial skills and competitiveness after participating in structured mentoring and training sessions (DTI, 2023). These findings corroborate studies highlighting capacity-building as a critical factor in MSME recovery (ILO, 2021).

The RiseUp Multipurpose Loan Program again obtained the lowest effectiveness rating (mean = 2.85). Business owners expressed a preference for cooperative lending schemes, which they considered more familiar and flexible. This finding mirrors the implementers' perceptions, indicating consistency between stakeholder groups.

Comparison of Perceptions Between Implementers and Business Owners

Table 2. Significant Difference on the Perception of the Group of Respondents on the Level of Effectiveness of Programs of Local Government Unit of Tabuk City.

Groups	Mean	computed value	p- value	Decision
Implementers	3.20	0.03	0.49	Not Significant
Business owners	3.19			



Table 2 shows no statistically significant difference between the perceptions of implementers (mean = 3.20) and business owners (mean = 3.19), with a computed p-value of 0.49 at the 0.05 level of significance. This result indicates shared perceptions regarding the effectiveness of LGU programs, suggesting alignment between program design and beneficiary experiences.

Study findings support literature emphasizing market linkage, digital adoption, and capacity-building as essential to MSME resilience (ILO, 2021; OECD, 2021). The Go Lokal Program's strong performance reflects successful product promotion strategies. Conversely, the lower effectiveness of the RiseUp Multipurpose Loan is tied to business owners' preference for cooperative loans, which they find more accessible.

For the qualitative method, the researchers supported the interview to the respondents with documentation for the Programs of Local Government Unit of Tabuk City to Local Businesses towards Now Normal through interviews with the LGU Tabuk City regarding the programs they implemented amidst COVID-19 for the business owners.

During the interview with the BPLO LGU Tabuk City, they enumerated the programs that their agency offered amidst COVID-19. They conducted trainings in terms of managing business during COVID-19 and offered free training to the business owners, such as wine-making workshops. They discussed the COVID-19 Assistance to Restart Enterprises (CARES) Program, which was implemented during the massive lockdown advisories in the country and ended on January 31, 2022, to help business owners as well as the economy during the crisis (Small Business Corporation, 2022). The CARES program is under the Pondo sa Pagbabago at Pag-asenso (P3) program. After the CARES program, the RiseUp program has been implemented, which is also under the P3 program (Small Business Corporation, 2023).

They stressed the Youth Entrepreneur Program, intended for the young ones planning to enter the business industry (Department of Trade and Industry, 2021). Next, the Kapatid Mentor Me Program provides MSMEs free education and training and then assists them by linking them to bigger companies. This program has ten modules and ten sessions, intended for existing businesses (Department of Trade and Industry, 2023).

For assessing the effectiveness of the programs as perceived by the implementers, the results showed that the obtained total weighted mean is 3.20, implying a level of effectiveness of the programs towards the new normal as perceived by the implementers, which resulted as effective. The highest obtained weighted mean of 3.80 is along Indicator A, Go Lokal Government programs. Partner stores and retail establishments all over the Philippines, such as Ayala Malls, Rustan's, Duty-Free, Robinsons Mall, and others, with an obtained weighted mean of 3.80, which is highly effective. This Go Lokal Program by the LGU Tabuk City promotes the One Town One Product (OTOP) to tourists who visited the city (Department of Trade and Industry, 2022).

They also encourage local business owners to join during fiestas (Matagoan Festival) to patronize their products. With the initiatives of the LGU Tabuk City, local products were known outside the province and in some foreign countries. Kalinga Brew and Weaving is an example. The lowest is along Indicator D, RiseUp Multipurpose Loan with an obtained weighted mean of 2.80, under effective. This program is not convincing to the business owners because most businesses are members of cooperatives wherein, for short-term needs, they apply for loans.

For the level of effectiveness of the programs towards the new normal as perceived by the business owners, the obtained total weighted mean between the two classifications of business is 3.20, implying a level of effectiveness of the programs towards the new normal as perceived by the business owners, which resulted as effective. The highest obtained weighted mean is along Indicator A, Go Lokal Government programs, which brings locally made products to Go Lokal partner stores and retail establishments all over the Philippines, such as Ayala Malls, Rustan's, Duty-Free, Robinsons Mall, and others, with an obtained weighted mean of 3.61 for micro and 4.00 for small businesses, and the overall obtained weighted mean between the two classifications is 3.81, under highly effective. The business owners are encouraged to promote their products by joining the One Town One Product (OTOP) program of the DTI through the support of Local Government Units. The lowest is along Indicator D, RiseUp Multipurpose Loan with an obtained weighted mean of 2.69 for micro and 3.00 for small businesses, and the overall obtained weighted mean is 2.85, under effective. The results are the same as the perception of the implementers, wherein business owners prefer loans from their joined cooperatives instead of the RiseUp Multipurpose Loan program.

Conclusion

The study concludes that the LGU of Tabuk City effectively supported MSMEs during the Now Normal period through a combination of market linkage, capacity-building, and financial assistance initiatives. Programs emphasizing



product promotion and skills development, particularly the Go Lokal and Youth Entrepreneurship Programs, demonstrated the strongest outcomes. In contrast, financial loan programs such as the RiseUp Multipurpose Loan were less effective due to beneficiaries' preference for cooperative-based financing. The absence of significant perceptual differences between implementers and business owners underscores the coherence of program implementation and reception. Overall, the findings affirm the critical role of localized governance in fostering MSME resilience in rural communities.

Recommendations

Based on the findings of the study, the following recommendations are proposed:

1. The LGU of Tabuk City, in coordination with the Department of Trade and Industry (DTI) Kalinga, may conduct regular information seminars to increase awareness and understanding of the RiseUp Multipurpose Loan Program, including eligibility requirements and application procedures.
2. The LGU may strengthen pre-evaluation mechanisms for RiseUp Tindakan Loan applicants, particularly small retail establishments (locally known as *sari-sari stores*, or neighborhood convenience shops), to enhance loan viability and repayment capacity.
3. Priority access to recovery assistance programs such as the COVID-19 Assistance to Restart Enterprises (CARES) Program may be extended to MSMEs most affected by pandemic-related restrictions to support business continuity and crisis recovery.
4. Continuous promotion of LGU-led entrepreneurship programs through quarterly orientations and monitoring activities may enhance program visibility, participation, and long-term impact.

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Developing an evidence-based model to enhance student engagement and academic performance in hybrid learning in business education

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Abstract

Aim. This study examined the learning modality preferences and academic performance of undergraduate students enrolled in Business Administration and related programs, comparing HyFlex (hybrid-flexible) and traditional face-to-face delivery. It further explored students' experiences in HyFlex environments to develop an evidence-based strategic model aimed at enhancing engagement and academic outcomes.

Methodology. A convergent mixed-methods design was employed. One hundred undergraduate students from Rizal Technological University completed a researcher-developed survey capturing learning modality preference and most recent semester grade categories. A purposive subsample participated in semi-structured interviews to provide experiential insights. Quantitative data were analyzed using descriptive statistics and the Chi-Square Test of Independence to examine the relationship between modality preference and academic performance. Qualitative data were analyzed inductively to identify recurring themes. Institutional approval and informed consent were secured.

Results. Seventy-four percent of respondents preferred HyFlex Learning, frequently citing flexibility, autonomy, and access to synchronous and asynchronous materials. Students who preferred HyFlex displayed higher proportions in the Outstanding (28%) and Very Satisfactory (58%) grade bands compared to those preferring Traditional Learning (23% and 42%, respectively). The Chi-Square analysis indicated a statistically significant association between learning modality preference and academic performance. Interview findings revealed key benefits—including flexible scheduling, enhanced interaction options, and the ability to revisit recorded materials—as well as challenges such as technological disruptions, unstable connectivity, and diminished online social presence. Synthesizing both data strands led to the development of a five-component strategic model comprising: (1) instructor training, (2) technology access and support, (3) student support systems, (4) continuous feedback and iterative improvement, and (5) flexible blended pathways.

Conclusion. HyFlex Learning was associated with higher engagement and more consistent academic performance in this sample. Institutions may enhance HyFlex implementation through sustained faculty development, improved technological infrastructure, and comprehensive academic and psychosocial support systems.

Keywords: *HyFlex, hybrid learning, student engagement, academic performance, higher education, strategic model*

INTRODUCTION

Hybrid or HyFlex (Hybrid-Flexible) learning has become a transformative innovation in higher education, responding to shifting student expectations and disruptions such as the COVID-19 pandemic. Unlike the traditional face-to-face classroom, Hybrid Learning integrates physical and digital environments, enabling students to choose how they participate—either in person, synchronously online, or asynchronously through recorded sessions and digital modules. This approach supports inclusivity, accessibility, and personalized learning (Niyomves et al., 2024).

Globally, higher education institutions have adopted Hybrid Learning to accommodate diverse learning needs, schedules, and technologies. In business education, where theoretical frameworks intertwine with practical applications, Hybrid Learning enhances engagement and retention through simulations, case-based activities, and collaborative discussions. It promotes the three domains of engagement—behavioral, cognitive, and emotional—by providing opportunities for participation, critical thinking, and intrinsic motivation.

Despite its potential, gaps persist in Philippine research on HyFlex learning, particularly in understanding its effects on academic performance and learning preferences in business-related courses. Many studies emphasize student satisfaction but overlook the interaction between modality choice, instructor readiness, and institutional support. This study addresses these gaps by examining the relationship between learning preferences and academic performance while proposing a strategic model to improve Hybrid Learning implementation in higher education.

Review of Related Literature

International research consistently shows that Hybrid Learning has become an essential mode of academic delivery, particularly during the COVID-19 disruption. Institutions worldwide blended online and face-to-face instruction to ensure continuity of learning. Hybrid formats have been documented to promote greater flexibility,

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student satisfaction, and engagement by supporting varied learning styles, enabling self-paced progression, and integrating interactive digital tools (Heilporn & Lakhali, 2021). These approaches also support global educational goals—particularly in strengthening digital resilience and innovation—as reflected in the proposed SDG Target 4.8 on “Digital-Resilient Education,” which highlights equitable access, instructor digital competence, and continuity planning (Martins et al., 2025).

Studies further suggest that hybrid effectiveness depends on thoughtful instructional design, robust technological systems, and pedagogical strategies that promote collaboration and community (Gamage et al., 2022). Comparative findings indicate that face-to-face classes may foster higher emotional engagement, but hybrid environments offer substantial advantages in autonomy, flexibility, and self-regulation (Teoh et al., 2025; Palmer et al., 2022; Bensi et al., 2025).

Challenges in Hybrid Learning

Even with its benefits, Hybrid Learning presents challenges. Technical issues—such as unreliable connectivity, insufficient digital infrastructure, and limited device access—interfere with participation and learning continuity (Zhang et al., 2025). Students also report decreased social presence, fewer real-time interaction opportunities, and occasional feelings of isolation when attending online sessions (Detyna & Koch, 2023). These issues highlight the need for strategic institutional support, strong instructional design, and mechanisms for ongoing feedback and engagement.

Hybrid Learning in the Philippine Context

Philippine higher education institutions increasingly adopted hybrid modalities as a response to infrastructure limitations, varied student schedules, and the need for resilient instructional systems. However, disparities in internet access, digital literacy, and technological readiness remain significant barriers (Kunjiapu et al., 2025). These challenges hinder equitable participation and underscore the need for models tailored to the Philippine context—particularly in business education, where course delivery must integrate theoretical and applied learning components.

Synthesis

Across global and Philippine studies, Hybrid Learning proves beneficial in improving flexibility, engagement, and academic performance. Nonetheless, its success depends on institutional readiness, technological support, pedagogical design, and equitable access. While international evidence shows strong potential, the Philippine context presents unique challenges that demand localized, evidence-based strategies. Literature reveals a critical gap in examining the preference-performance relationship and in creating a practical model for hybrid implementation in higher education. This study responds to that gap by integrating quantitative outcomes with qualitative experiences to inform a strategic model designed for Philippine business education programs.

Theoretical framework

Self-Determination Theory (SDT) (Ryan et al., 2021) provided a meaningful lens for understanding how learning modality influenced student engagement and performance in Hybrid Learning environments. SDT explained why students’ preferred learning modality affected their level of engagement, as learners were more motivated when they could choose a mode that aligned with their needs and circumstances. The autonomy afforded by HyFlex modalities supported performance by allowing students to regulate their learning pace and participation mode. Likewise, SDT clarified how technological and instructional support enhanced academic motivation by strengthening students’ sense of competence through access to tools, clear learning pathways, and timely feedback. Conversely, challenges such as weak online interaction, technological barriers, or feelings of isolation undermined relatedness and consequently reduced learning effectiveness. Guided by these principles, SDT shaped the framing of the research questions, informed the interpretation of both quantitative and qualitative findings, and served as the theoretical anchor in developing an evidence-based strategic model intended to enhance engagement and academic performance in Hybrid Learning environments.

Statement of the Problem

Hybrid or HyFlex learning has expanded rapidly in higher education, particularly in response to the need for flexible instructional delivery in the post-pandemic landscape. Although global literature highlights its potential to enhance engagement, satisfaction, and learning outcomes, limited empirical evidence exists in the Philippine context—especially within business education programs. Existing studies tend to focus on student satisfaction or



general perceptions and seldom examine the interaction between students' learning modality preferences and their actual academic performance. Furthermore, there is inadequate exploration of how institutional factors such as instructor readiness, technological support, and student services influence the effectiveness of Hybrid Learning implementation. These gaps highlight the need for a systematic investigation that links learning preferences, academic outcomes, and student experiences, and for the development of an evidence-based model to strengthen Hybrid Learning delivery in business education programs in the Philippines.

General Objective

To evaluate students' learning preferences and academic performance under Hybrid and Traditional Learning modalities in Business Administration and related courses, and to develop an evidence-based strategic model to enhance the effectiveness of Hybrid Learning.

Specific Objectives

1. To determine students' preferred learning modality.
2. To assess academic performance across Hybrid and Traditional Learning settings.
3. To explore students' experiences in Hybrid Learning environments.
4. To develop a strategic model that enhances student engagement and academic performance in Hybrid Learning.

Research Questions

1. What is the predominant learning modality preference among students?
2. How does academic performance differ between students in Hybrid and Traditional Learning modalities?
3. What positive and negative experiences do students encounter in Hybrid Learning?
4. What strategic model can be developed to enhance engagement and academic outcomes in Hybrid Learning environments?

Hypothesis

H₀: There is no significant relationship between students' learning preferences and their academic performance in business-related courses.

METHODS

Research Design

This study employed a convergent parallel mixed-methods research design, integrating quantitative descriptive–correlational analysis with qualitative thematic inquiry. The quantitative strand examined the association between students' learning preferences (HyFlex vs. Traditional) and their academic performance using survey data. Simultaneously, the qualitative strand explored students' lived experiences, challenges, and perceptions of Hybrid Learning through unstructured interviews.

Both strands were conducted independently but during the same period. After separate analyses, the findings were merged and triangulated, allowing quantitative patterns—such as higher Outstanding and Very Satisfactory scores among HyFlex learners—to be explained by qualitative insights related to autonomy, flexibility, access to recorded lectures, and interaction design. Negative themes such as connectivity issues, weak online social presence, and platform malfunctions illuminated the boundary conditions of Hybrid Learning effectiveness.

The mixed-methods approach was appropriate because it combined measurable academic outcomes with contextual explanations of student experiences, increasing the depth, validity, and applicability of the findings (Creswell, 2014). The integration of results directly informed the development of a five-component strategic model for improving Hybrid Learning in Business Education.

Population and Sampling

The study involved 100 undergraduate students enrolled in Business Administration and related programs at Rizal Technological University during the Academic Year 2024–2025. For the quantitative phase, random sampling was used to select participants who completed the survey questionnaire.

For the qualitative phase, a purposive sampling technique was employed to select students who represented both learning modality preferences (Hybrid and Traditional). This ensured diversity in experiences based on level of



engagement, academic performance, and frequency of modality use. Only students who voluntarily agreed and provided informed consent participated in interviews.

Instruments

All instruments were pilot-tested for clarity, coherence, and appropriateness before final use. Three instruments were used in this study:

1. Survey Questionnaire-This researcher-developed tool collected data on (a) students' preferred learning modality and (b) their most recent academic performance categorized into five levels (Outstanding, Very Satisfactory, Satisfactory, Fairly Satisfactory, Unsatisfactory). Content validity was established through expert review by three faculty members specializing in educational measurement.
2. Interview Guide-A semi-structured guide explored students' experiences in Hybrid Learning, focusing on flexibility, technological access, interaction quality, feedback, and perceived learning effectiveness.
3. Documentation Notes-Observational notes taken during encounters with respondents provided additional contextual information regarding students' behaviors and comments related to Hybrid Learning.

Data Collection

Data collection was conducted over a two-week period at the beginning of the 2024–2025 academic year.

For the quantitative phase, the survey questionnaire was administered personally at students' available time slots. Participants were informed about the purpose of the study, and participation was voluntary. They were assured that they could withdraw at any point without penalty. Completed questionnaires were collected and securely stored for analysis.

For the qualitative phase, unstructured interviews were conducted either in-person or online, depending on students' availability. With permission, interviews were audio-recorded and transcribed verbatim. Students were encouraged to share both positive and negative experiences with Hybrid Learning.

All raw data—including transcripts and notes—were kept in password-protected digital storage accessible only to the researcher.

Treatment of Data

For quantitative data analysis, survey data were encoded and analyzed using Microsoft Excel and SPSS. The following statistical techniques were applied:

- Descriptive statistics (frequency, percentage, mean, and standard deviation) to summarize modality preferences and academic performance.
- Chi Square were used to determine whether a significant relationship exists between learning modality preference and academic performance.

For qualitative data analysis, a thematic analysis (Braun & Clarke, 2022) was conducted. Themes focused on flexibility, autonomy, engagement, technological challenges, and interaction quality on the following these steps:

1. Familiarization with responses
2. Open coding of recurring patterns
3. Categorization of codes into themes
4. Refinement of themes into conceptual clusters
5. Interpretation of themes in relation to quantitative findings

Integration of Data

After separate analyses, results were merged to create meta-inferences. Triangulation was used to validate findings by comparing numerical patterns with experiential narratives. The integrated insights guided the development of a strategic model to enhance Hybrid Learning effectiveness.

Ethical Considerations

The study adhered to strict ethical standards:

- Institutional Permission: Approval was sought from university authorities before data collection.
- Informed Consent: Participants were briefed about the study's purpose, voluntary nature, confidentiality, and their right to withdraw at any moment.
- Confidentiality: All personal identifiers were removed; pseudonyms were used in interview transcripts. Data were stored securely in password-protected files.



- Data Privacy Compliance: Procedures complied with the Data Privacy Act of 2012 (RA 10173).
- Academic Integrity: All sources, quotations, and materials were properly cited to avoid plagiarism, and similarity checks were conducted prior to final submission.

RESULTS AND DISCUSSION

This section provides an overview of the respondents' profiles concerning their learning preferences, academic grades and experiences during the HyFlex modalities. A concept or model was developed in the study to enhance the students' performance and learning outcome.

1. Learning modality preference of students

The table below presents the learning preference of selected students in business related courses.

Table 1: Distribution of respondents on Learning Modality Preference

Learning Preference	Frequency	Percentage
Hybrid Learning	74	74%
Traditional Learning	26	26%
Total	100	100%

Out of 100 respondents, 74% preferred Hybrid Learning, citing flexibility and autonomy as major advantages. This aligns with Battestilli et al. (2023), who observed improved engagement when real-time and asynchronous components coexist.

2. Academic Performance of Students in Hybrid and Traditional Learning

Table 2: Academic Performance Based on Learning Preference

Semesterly Grade / Academic Performance	HyFlex Learning		Traditional Learning	
	Frequency	Percentage	Frequency	Percentage
Above or 1.50	28	28%	23	23%
1.75-2.00	58	58%	42	42%
2.00-2.25	10	10%	19	19%
2.50-3.00	4	4%	13	16%
Below 3.00	0	0	3	3%
Total	100	100%	100	100%

Outstanding-1.00-1.50 (O) Very Satisfactory-1.75-2.00 (VS) Satisfactory-2.00-2.25 (S) Fairly Satisfactory-2.50-3.00 (FS) Unsatisfactory-below 3.00 (US)

Table 2 presented students' academic performance by preferred learning modality—HyFlex (Hybrid-Flexible) versus Traditional. Performance was grouped into five ranges: Outstanding (1.00–1.50), Very Satisfactory (1.75–2.00), Satisfactory (2.00–2.25), Fairly Satisfactory (2.50–3.00), and Unsatisfactory (below 3.00). Among HyFlex students, 28% attained *Outstanding* and 58% *Very Satisfactory*, compared with 23% and 42% in Traditional learning, respectively. Smaller proportions of HyFlex learners fell within lower bands (*Satisfactory* 10%; *Fairly Satisfactory* 4%; *Unsatisfactory* 0%) relative to Traditional learners (19%, 16%, and 3%, respectively). This distribution indicated that students who preferred HyFlex generally achieved higher and more consistent results, a pattern plausibly aligned with the flexibility, autonomy, and blended instructional opportunities characteristic of HyFlex delivery. At the same time, Traditional learning exhibited a more even spread across performance categories. Taken together, the findings supported the recommendation that institutions treat Hybrid/HyFlex as part of the post-pandemic instructional norm, while investing in faculty development, technology access, and structured student



supports to ensure that heterogeneous learner needs are met (Mentzer et al., 2023). Further research with larger samples and objective grade records is warranted to confirm these trends and to examine causal mechanisms.

Hypothesis Testing

Table 3: Chi-Square Test of Independence

Variable 1	Variable 2	χ^2	df	p	Interpretation
Learning Modality	Academic Performance	13.24	4	0.010	Significant

Since the computed p-value (0.010) is less than the 0.05 level of significance, the result is statistically significant. This indicates that academic performance is not independent of learning modality. In other words, students' academic performance varies depending on the type of learning modality they use. Thus, the null hypothesis, which states that there is no significant relationship between learning modality and academic performance, is rejected. A significant association exists between the two variables, confirming that alignment between student choice and delivery modality enhances outcomes (Battestilli et al., 2023).

3. Students Experiences During Hyflex Modalities

Participants consistently valued the flexibility and autonomy afforded by HyFlex. The ability to choose among in-person, synchronous online, and asynchronous formats enabled students to align study with work and family obligations and to pace learning through recorded materials. As one participant noted, "The option to attend live or review recordings later fit my schedule and improved my learning." Reports also emphasized motivational benefits from real-time interaction during face-to-face sessions, which supported focus and persistence: "Face-to-Face sessions helped interact with instructors and classmates, keeping engaged." These accounts aligned with studies showing that hybrid formats support diverse preferences, strengthen engagement, and enhance competence when coupled with clear structure and interactive opportunities (Fabian et al., 2024).

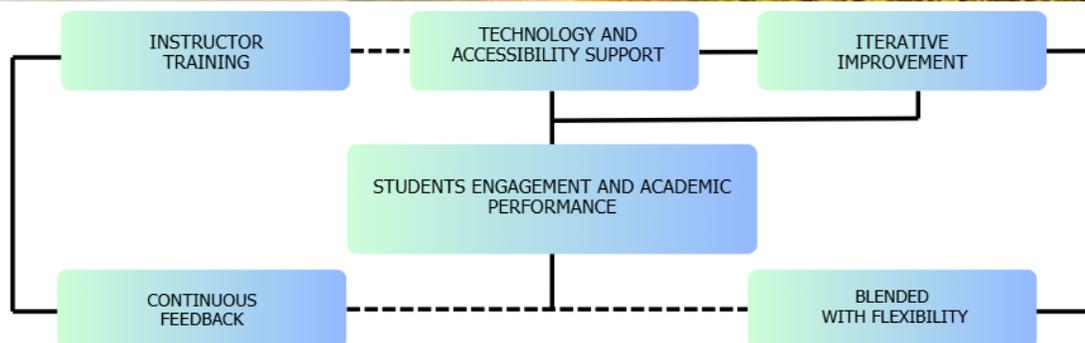
Students also described technical barriers—background noise in recordings, video freezes, and inconsistent access to asynchronous materials—which required frequent rewinds and disrupted comprehension: "Sometimes videos freeze or have noise; I have to replay parts to follow the lesson." Connectivity issues during live sessions further impeded continuity: "If the internet is unstable, I miss parts of the lecture." Several participants perceived weaker online social presence, citing fewer immediate feedback opportunities and a reduced sense of belonging relative to face-to-face classes. These challenges mirrored prior findings that poor audio–video quality, unstable networks, and insufficiently designed online interaction can undermine engagement and relatedness (e.g., Detyna & Koch, 2023).

Consistent with the literature, students' narratives indicated that HyFlex was most effective when pedagogical structure, technology reliability, and support systems were jointly in place. Reports highlighted the value of clear expectations, formative checks, timely feedback, and recorded resources to scaffold competence; mentoring, study groups, and counseling to bolster relatedness and resilience; and responsive course adjustments informed by pulse surveys, analytics, and brief reflections (Astawa & Purwaningrat, 2025).

In line with these findings, institutions implementing HyFlex should: (a) invest in faculty training focused on autonomy-supportive, interaction-rich hybrid pedagogy; (b) ensure equitable technology access and robust AV standards for recordings; (c) formalize student support services for both online and on-campus learners; and (d) institutionalize continuous feedback loops (weekly micro-surveys/learning analytics) to drive iterative improvement. These measures directly address the reported pain points while preserving the flexibility and autonomy that students identified as central benefits of HyFlex.

4. Strategic Model Development to Enhance the Learning Outcome and Academic Performance

Figure 1: Strategic Model to Enhance Students' Engagement and Academic Performance



Based on the finding the researchers proposed model composed of five interconnected components aimed at enhancing engagement and academic performance in Hybrid Learning. Instructor training prepared educators to design and facilitate structured, interaction-rich courses across face-to-face, synchronous online, and asynchronous modes. Technology access and support ensured reliable devices, connectivity, and platforms so that students could participate consistently and receive timely feedback. Student support systems—including tutoring, mentoring, and counseling—bolstered motivation, resilience, and self-efficacy. A flexible blended approach preserved learner choice of participation path, accommodating diverse schedules and preferences while maintaining clear expectations and alignment across modalities. Continuous feedback and iterative improvement used short pulse surveys, learning analytics, and assessment evidence to refine activities, pacing, and supports, with insights cycling back into instructor development and course redesign. In the conceptual diagram, dotted lines denoted enablers (e.g., technology access and flexible attendance options) that did not operate as constant direct drivers but strengthened the effectiveness of the core strategies. Together, these components functioned as an adaptive system that integrated instructor competence, technological reliability, student supports, flexibility, and data-informed iteration to sustain inclusive engagement and improved academic outcomes.

The findings indicated that Hybrid Learning (HyFlex) was the preferred modality for most students in Business Administration and related courses with 74% selecting it primarily for its flexibility. Students who preferred HyFlex generally attained higher proportions of Outstanding and Very Satisfactory grades than those who preferred Traditional learning. While causality could not be inferred, the pattern was consistent with the view that HyFlex can support engagement and comprehension through choice of attendance, access to recorded materials, and interaction-rich sessions.

A correlation exists between learning preference and academic performance further underscored the value of aligning instructional delivery with student needs. Consistent with Self-Determination Theory, students reported greater engagement when their learning pathways afforded autonomy (modality choice), built competence (clear structure, feedback, rewatchable content), and fostered relatedness (real-time interaction with instructors and peers).

While students identified constraints that dampened participation and learning: background noise in recordings, platform malfunctions, unstable connectivity, and reduced immediacy of feedback in online settings. These issues highlighted the need for reliable technology, explicit communication of expectations, and instructor development focused on designing interaction and presence across modalities.

With this finding the study proposed a five-part model that integrated instructor training, technology access and support, student support systems, continuous feedback and iterative improvement, and a flexible blended approach. The model emphasized adaptability and responsiveness, using ongoing evidence of student outcomes to inform course redesign and faculty practice, thereby sustaining inclusive engagement and improving academic performance.

Conclusion

This study concluded that Hybrid Learning (HyFlex) conferred meaningful benefits for Business Administration students by enhancing engagement and supporting higher academic performance relative to Traditional learning. The modality's flexibility and learner autonomy enabled more personalized learning experiences and accommodated diverse study preferences. Nonetheless, technical and social challenges persisted. These were addressable through coordinated investments in faculty training for hybrid pedagogy, reliable technology and platform support, comprehensive academic and well-being services, and continuous feedback mechanisms to guide iterative improvement. The proposed five-component model offered a practical, evidence-informed framework for



institutions to optimize Hybrid Learning in ways that remained adaptive, inclusive, and effectiveness-oriented. Future studies using larger samples and objective performance records are recommended to validate these findings and further clarify causal pathways.

Recommendations

Based on the findings of this study, the following recommendations are proposed to enhance the implementation and effectiveness of Hybrid Learning in business related courses:

1. Faculty Development- The school may implement ongoing, credit-bearing professional development on HyFlex pedagogy, covering autonomy-supportive teaching, designing parallel learning paths.
2. Technology Access and Reliability-institution may guarantee a baseline access to devices, bandwidth, and learning platforms through loaner programs and on-campus hotspots.
3. Student Academic and Well-being Supports-Institution may formalize tutoring, mentoring, and study-group options for both online and on-campus learners; integrate counseling and time-management coaching.
4. Course Design and Iteration-Institution may adopt a structured HyFlex template (weekly learning outcomes, modality-equivalent activities, formative checks, and rubrics).
5. Flexible Blended Pathways- Institutions may uphold students' ability to choose their mode of attendance for each session while ensuring that learning activities, instructional materials, and assessments remain equivalent across modalities..
6. Monitoring and Feedback Loops-Institution may track key indicators—attendance by modality, on-time submissions, grade distribution, variance in performance, drop/withdrawal rates, help-desk tickets.
7. Institution-Level Model Adoption: the researchers suggests or may utilize the five-component strategic model (faculty development, technology access, student supports, continuous feedback/iteration, flexible blended approach developed in this study).

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