

SUSTAINABLE TOURISM BUSINESS PRACTICES: INFLUENCE ON THE ENVIRONMENTAL PRACTICES IN THE WESTERN PART OF MISAMIS ORIENTAL

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ABSTRACT

The importance of sustainable business practices is essential in ensuring balanced growth of tourism which preserves environment, provides local communities with benefits and enables sustainable economic growth in the long-term basis. This study examined the influence of awareness of sustainable business practices influences the environmental practices of selected resorts in Western part of Misamis Oriental. Guided by Felix Ekardt's (2016) Theory of Sustainability, the research employed descriptive-correlational design and gathered data from 60 managers/owner/employees using a validated survey, adopted from Ihkram et al. (2020), and Chukwudi & Nwanyanwu, KC. (2020). The data were analyzed using descriptive statistics specifically frequency, percentage, mean, and standard deviation, canonical correlation, and regression analysis. The descriptive analysis revealed that participants demonstrated a very high level of awareness of sustainable practices, and very high extent of environmental practices. Canonical correlation analysis showed a significant relationship between the awareness in sustainable business practices and environmental practices, while the regression results further confirmed that awareness strongly and significantly influences water conservation, energy efficiency, and waste management. These findings confirm the Theory of sustainability which shows that the increase in awareness results in more coherent and stronger environmental behaviors. The study concludes that the environmentally responsible behavior in the operations of the resorts is largely dependent on sustainability awareness. It is suggested that the local tourism sectors reinforce sustainability education and community-based advocacy initiatives in order to enhance responsible tourism further and encourage long-term stewardship.

Keyword: Sustainable Business Practices, Environmental Practices, Sustainability Awareness, Tourism Industry

1. INTRODUCTION

Tourism is one of the leading economic boosters in the world and in the Philippines. It has been an important source of employment, livelihood and development in the locality. In this context, the awareness of sustainable tourism is expected to strike a balance between economic development, the environment, and social responsibilities. According to the Global Sustainable Tourism Council (GSTC), sustainable tourism presupposes the reduction of negative effects on the environment as well as the protection of cultural heritage and the fair distribution of development (Mironova et al., 2024). It has also been found that sustainability practices contribute to better operational efficiency and resource management (Bozdaglar, 2023), whereas bad tourism management results in pollution, biodiversity

destruction, and overload on the local infrastructure (Chen, 2022). Natural disasters also pose a high exposure in the tourism sector in the Philippines and they disrupt businesses and impact resilience of communities (Shimizu et al., 2023). Such facts enhance the necessity of businesses, in particular, local resorts to go green and implement sustainable practices that would underpin the environment and economic sustainability in the long run.

Several literatures showed the benefits of sustainability particularly across different fields. The Indonesian study suggests that eco-tourism policies could enhance the conservation and livelihood performance (Ridho et al., 2024). In the Philippine, community tourism results in empowerment of local communities and cultural heritage (Badaruddin et al., 2022) and a gender

sensitive policy on Boracay has increased social equity (Carlos et al., 2023). However, rural tourism operators still face challenges such as limited sustainability training, limited financial support, and unclear policies guidelines (Raihan et al., 2022).

Despite of the increasing literature on sustainable tourism, there is still a significant gap on analysis of rural and less-commercialized tourist spots like the western region of Misamis Oriental. This study aimed to assess how sustainable tourism business practices influence the environment in selected areas of Western Misamis Oriental. By focusing on this under-researched region, the study sought to offer practical insights that can guide local tourism operators, policymakers, and community stakeholders toward more responsible and sustainable tourism development.

2. THEORETICAL AND CONCEPTUAL FRAMEWORK

The study argues that the more the establishments are aware and understand how to carry out business activities in sustainable tourism, the more likely they would carry out tangible environmental programs like saving energy and conserving water and managing waste disposal. This study is grounded on the theory of Felix Ekardt (2016) Theory of Sustainability, which states the concept of sustainability as a general perspective of society and economy that can be sustainable over time. Such an approach correlates with the fact stated by Chungyalpa (2021) that sustainable enterprises have to balance the profitability of their operations with taking care of the environment and social fairness, making resort sustainability the diagnostic tool to determine the responsible tourism and resource governance.

In this context, the independent variable is the awareness of tourism sustainable practices on the social responsibility, economic values, and stewardship of environment, and the dependent variable is the resorts environmental practices of the following: waste management, energy efficiency, and water conservation. Waste management is the concept of reducing, isolating, and recycling solid waste that improves ecological safety and guest satisfaction, which Kholijah (2024) confirms as the concept that well-developed waste management impresses environmentally-aware clients. The use of

renewable energy sources and the latest power-saving technologies can help to decrease the costs of operation and carbon emissions (Wang et al., 2022), attracting green-conscious tourists (Cudny & Dajer, 2023). Similarly, water conservation measures, including greywater reuse, rainwater harvesting, and water saving fixtures are also necessary; Wei (2024) argues that they are vital in destination sustainability, and Arijuddin (2024) points out that they contribute to operational stability in the long term and ecological health in host communities.

The conceptual framework in this study illustrates how the environmental practices by resorts in western Misamis Oriental, are influenced by the sustainability awareness which is influenced by social responsibility, economic values as well as environmental stewardship. Sustainability awareness in this model is the independent variable and it is the one that influences the resorts to change their operation behaviors and waste management, energy consumption and water conservation are the dependent variables. The framework presupposes that the resort operators who possess better knowledge and understanding of sustainability will find it much easier to take steady and efficient environmental measures. Social responsibility promotes community-oriented and ethical practices, economic values promote cost-effective practices like adoption of energy and water saving technologies, and ecological commitment promotes long term environmentalism. These dimensions do not operate separately but in combination, they moderately determine the sustainability performance of the resorts and provide insight into the available opportunities as well as the possibility of improving sustainable tourism development in the area.

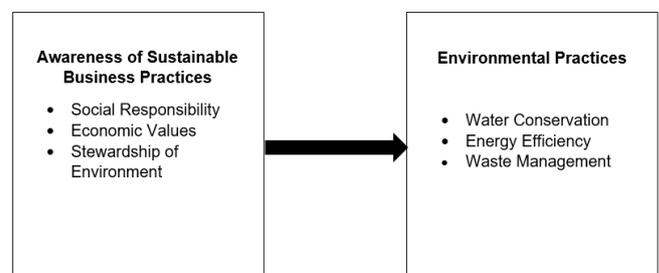


Figure 1. The Schematic Presentation of the Study

3. OBJECTIVE OF THE STUDY

This study aimed to understand how the awareness of sustainable business practices influences the environmental practices of resorts operators in the Western part of Misamis Oriental.

4. METHODS

This study uses descriptive-correlational quantitative research design, and using enumeration sampling, 60 owners/managers of resorts were chosen to part of the study during the 2025-2026 academic year. The research tool was adopted and modified from Ihkram et al. (2020), and Chukwudi & Nwanyanwu, KC. (2020). Ensuring high internal consistency, all domains was confirmed by Cronbach's alpha values. Strict adherence to ethical principles was maintained, with a focus on voluntary involvement, informed consent, and confidentiality. Assessments of awareness and level of environmental practices were analyzed using descriptive statistics, and the relationship of the sustainable business practices and environmental practices used canonical correlation, lastly factors influence environmental practices were found using multiple regression. The results of this analytical approach were dependable, moral, and perceptive.

| Range | Description |
|-------------|-------------------|
| 4.21 – 5.00 | Strongly Agree |
| 3.41 – 4.20 | Agree |
| 2.61 – 3.40 | Neutral |
| 1.81 – 2.60 | Disagree |
| 1.00 – 1.80 | Strongly Disagree |

5. RESULTS AND DISCUSSION

Summary Table of awareness of sustainable tourism business practices

| Dimensions | Mean | Interpretation | SD |
|--|-------------|----------------|-------------|
| Social responsibility | 4.38 | High | 0.47 |
| Economic value | 4.53 | High | 0.43 |
| Stewardship of environment | 4.48 | High | 0.65 |
| Awareness on sustainable tourism business practices | 4.46 | High | 0.44 |

Findings reveal that the summary of awareness of sustainable tourism business practices indicated high awareness in all the dimensions, with an overall mean of 4.46 (SD = 0.44), indicates that the tourism stakeholders are highly aware and shows appreciation of sustainability among the tourism stakeholders in western Misamis Oriental. The findings reveal that firms value sustainability because of its environmental and social importance as well as its ability to enhance their level of operational efficiency, competitiveness, and long-term sustainability. The studies in this area (Asbullah and Tarigan, 2024) state that sustainability plans bring operational efficiency and competitiveness and Baah et al. (2021) state that the authentic sustainability plans contribute greatly to both environmental and business performance. Out of the three dimensions, the economic values were rated the highest (M = 4.53, SD = 0.43) and respondents support the idea of sustainable tourism as having a strong financial impact on their business in terms of cost reduction, achievement of efficiency, and the ability to build the competitive advantage. On the contrary, the social responsibility being rated the lowest one (M = 4.38, SD = 0.47) implied that, despite the emphasis placed on the relevance of ethical practices and engagement with the community, these dimensions are not implemented in a consistent manner yet the establishments still require improvement according to the opinions expressed by Ridho et al. (2024) and Aukhoon et al. (2024).

Summary Table of Extent of Environmental Practices

| Dimensions | Mean | Interpretation | SD |
|--|-------------|------------------|-------------|
| Water conservation | 4.61 | Very High | 0.44 |
| Energy efficiency | 4.52 | Very High | 0.49 |
| Waste management | 4.43 | High | 0.69 |
| Overall environmental practices | 4.52 | Very High | 0.44 |

Results showed that Western Misamis Oriental resort tourism establishments were a very high practitioner in environmental practices, with an overall mean of 4.52, implying strong firm commitment toward sustainability, compliance with regulations, and perpetuity of environmental

care. This corroborates with results from Siddique et al. (2023) that service-focused firms that adopt environmental practices gain operational and environmental advantages. Water conservation achieved the highest score (M = 4.61) among the dimensions, indicating that practices such as tracking water consumption and fixing leaks are being consistently executed, which is in line with the finding of Martin-Rios et al. (2022) which highlighted its cost-efficiency and short-term operational effect. Energy efficiency (M = 4.52) was quite high as well, meaning the respondents had already been using energy-saving products and measures, whereas the lowest score was for the waste management category (M = 4.43), which might mean there were differences in thorough execution due to the

influence of organizational or regional characteristics. Camarillo and Bellotindos (2021) and Mukucha et al. (2023) affirm that strong environmental initiatives and stakeholder participation are integral to outstanding waste management. In summary, the findings suggest that water conservation has the highest consistency, energy efficiency is the most widely adopted, while waste management presents the greatest prospect for enhancement amongst the environmental practices employed in operational strategies.

Canonical Correlation Analysis Between Sustainable Tourism Business Practises and Environmental Practices

| Variable | Cross loading | R | R ² | F | p |
|--|---------------|------|----------------|--------|------|
| Sustainable tourism business practices | | | | | |
| Social responsibility | -0.502 | | | | |
| Economic values | -0.523 | | | | |
| Stewardship of environment | -0.648 | 0.69 | 0.47 | 5.24** | .000 |
| Environmental Practices | | | | | |
| Water conservation | -0.601 | | | | |
| Energy efficiency | -0.358 | | | | |
| Waste management | -0.612 | | | | |

**Significant at 0.01 two-tailed alpha level.

The canonical correlation analysis indicated a strong positive and statistically significant association between sustainable tourism business practices and environmental practices, with a canonical correlation of $R = .69$ and $R^2 = .47$ suggesting that knowledge of sustainable tourism accounted for 47% of the variance in environmental practices. The results indicate that knowledge and understanding of sustainable business practices informs positive intentions in tourism businesses to carry out environmental action in the form of energy saving, water saving, waste management, and so on. This underlines that sustainability consciousness is not only conceptual but is practical at an operational level and contributes to raising the consistency and quality of environmental efforts within tourism actors. These are in line with Martin-Rios et al. (2022), Cheng et al. (2023) & Mukucha et al. (2023), who report that increased sustainability awareness fosters efficient resource use, reduction on environmental impact, and

encourages a steady use of green practices. Environmental stewardship (-0.648) was the strongest predictor for awareness, indicating that those who felt more responsible for the environment would be more likely to participate in sustainable actions. Waste management (-0.612) had the highest loading in the factor of environmental practices, followed by conservation of water (-0.601), revealed that sustainability consciousness has the strongest effect on management of wastes and efficiency of water-use. This suggests that green minded food service businesses generally implement similar practices in reducing, segregating, recycling and managing water. The literature (Camarillo & Bellotindos, 2021) further affirm that the environmental stewardship and sustainability awareness greatly foster the adoption and continuity of green practice in tourism business, reflecting the business case of the organization approach to sustainability.

Regression Analysis of Awareness About Sustainable Business Practices Significantly Influence on their Environmental Practices.

| | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|-----------------------------|------------|---------------------------|----------|------|
| | B | Std. Error | Beta | t | Sig. |
| (Constant) | 1.626 | .462 | | 3.521 | .001 |
| Awareness of sustainable business practices | .649 | .103 | .638 | 6.302*** | .000 |

Model Summary

R = 0.638 R² = 0.406 Adj. R² = 0.396 F = 39.710** p = .000

***significant at 0.01 level*

The results of the regression analysis shows that awareness of sustainable business practices significantly and positively influence environmental practices ($\beta = 0.638$, $t = 6.302$, $p < 0.01$). The non-standardized regression coefficient ($B = 0.649$) suggests that environmental practice will increase 0.649 units for a one-unit increase of awareness. The correlation and R² of the model ($R = 0.638$, $R^2 = 0.406$) indicate that 40.6% of the variance in environmental practices can be explained by the awareness of the participants, while the high F-value (39.710 , $p = 0.00$) supports the dismissal of the null hypothesis. These results demonstrate that awareness is a significant predictor of sustainability behaviour, indicating that employees and managers with knowledge of the economic, social and environmental importance of sustainability are more prone to engage in uniform and efficient environmental practices. Results show that increased consciousness leads to positive actions including correct solid waste management, water use reduction and energy saving solutions implementation. The size of the coefficient suggests that awareness not only affects practices at a superficial level, but it also leads to substantial behavioral changes that improve the long-term sustainability. This aligns with the findings of Gossling and Peeters (2022), who state that a higher level of knowledge on sustainability leads to a better outcome of pro-environmental

behaviour and that of World Travel and Tourism Council (2023) that asserts sustainability awareness is a motivator of green practice in tourism and hospitality. In the same vein, UN Environment (2022) highlights that awareness raising results in environmental responsibility, better resource management and sustained green lifestyle. In summary, the findings illustrate that enhancing awareness of sustainable business conduct is essential to encourage effective and durable environmental action in tourism stakeholders. Although awareness is important, other factors such as support from management, access to resources, organizational culture and applicable policies also influence environmental practices and these account for 59.4% of the variance. Findings emphasize the need to increase awareness among employees, managers and stakeholders to promote responsible disposal, plastic reduction, energy/water efficiency, and to enhance organizational systems, training and logistics support the same time

6. CONCLUSION

This study confirmed the Theory of Sustainability, which highlights the interrelationship of social responsibility, economic stability, and environmental stewardship as they are the pillars of sustainable development. The high awareness, as revealed by the participants, especially in the area of social responsibility, economic values, and environmental stewardship, has shown that the

participants have an understanding of sustainability, not just as an environmental issue but as an inclusive concept that embraces long-term social and economic well-being. This congruence indicates that sustainability is based on the internalized norms and informed societal values, as proved by Ekardt, which implies that the community studied has successfully adopted sustainability ideals as a component of the collective mindset.

The study further concludes that the practices of the participants in environmental matters, particularly in the areas of water conservation and energy saving, relate to the behavioral aspect of Ekardt's sustainability model, that is, the conversion of awareness into practical and responsible behavior. Waste management is also rated as slightly lower than the other dimensions, but it is generally positive environmental behavior. This proves that even though there are still certain aspects to be ameliorated, the community is in the process of adopting activities that have less environmental degradation. This almost gives the same idea as Ekardt, who explains that sustainable behavior will be developed once people realize that, in the long term, it is better to protect the resources we have and do so.

Lastly, the significant influence of sustainable business practice awareness on environmental practices is a strong demonstration that Ekardt is correct in his theoretical postulation that the results of the sustainability rely on informed decision-making, ethical responsibility, and proactive governance at the individual and institutional levels. The positive correlation between environmental practice and awareness in this paper is a strong and confirmed fact that when individuals become more knowledgeable about the sustainability concept, chances are that they will become more prone to practicing responsible and coherent ecological behavior. This confirms the importance of education, participatory, and normative commitment that Ekardt has made as the drivers of sustainable transformation. The discussion, therefore, brings to the conclusion that breaking through the wall of awareness towards sustainability in the tourism environment through education, advocacy, and community-based sustainability programs is essential in developing long-term, self-sustaining environmental practices.

7. RECOMMENDATION

Based on the findings and outcomes of the study, the following recommendations are provided to enhance the business sustainability and environmental practices of businesses in the Western part of Misamis Oriental.

1. Guests are encouraged to support resorts practices on sustainable tourism, in particular in waste and water management, and to participate in conservation works by reducing their consumption of resources and by using recyclable materials. Guests of the resorts may take part in awareness courses or environmental actions to increase their knowledge and interest in sustainability.
2. The owners of resorts are encouraged to incorporate sustainability into the day-to-day running of the resort, by using energy and water saving measures, enhancing environmental programmes and adopting sustainability policies that are consistent with national tourism standards to maintain a unified ecological approach."
3. Staff should receive regular training on segregation of waste, conserving water and energy, and environmentally friendly conduct and should actively supervise and guide the operations and the guests to a sustainable conduct.
4. That LGUs are encouraged to enforce their own sustainable tourism guidelines, intensify community-based environmental programs, and work with resorts to develop eco-tourism advocacies that promote responsible tourist behavior.
5. the Department of Tourism should strengthen accreditation standards by integrating indicators of environmental sustainability, conduct regular training for its managers and personnel, and enforce national information campaigns for the promotion of sustainable tourism practices.
6. Hospitality Management teachers are encouraged to: incorporate sustainable tourism, environmental management, green operations issues into the curriculum, provide hands-on learning opportunities such as audits, community clean-ups and research- or

project-based approaches to real world environmental issues.

7. Future researchers may explore other variables affecting environmental practices. Conduct larger, even comparative studies (across municipalities) and may use interviews or focus groups to capture motivations, barriers and perspectives in growing complexity in the field of sustainable tourism practices.

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