

Assessing Competitiveness and Sustainability in the Tourism Industry of Negros Occidental

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Abstract. This study examined the competitiveness and sustainability of the tourism industry in Negros Occidental, Philippines, in response to the limited localized evidence on how accredited tourism attractions are perceived in terms of these two interconnected dimensions. Using a quantitative descriptive correlational design, the study gathered data from 283 tourism personnel from 26 Department of Tourism accredited attractions in 13 cities through a validated researcher made questionnaire covering activities, amenities, accessibility, and awareness. Frequency, percentage, mean, Mann Whitney U test, Kruskal Wallis H test, and Spearman rho were used to analyze the data. The findings revealed that the tourism industry in Negros Occidental was perceived as very competitive and very sustainable overall, with particularly strong ratings in unique activities, quality amenities, accessible facilities, and visible sustainability practices. Most profile variables showed no significant differences in competitiveness and sustainability, indicating a generally shared perception across educational attainment, length of service, employment status, and type of attraction. However, significant differences emerged in sustainability when respondents were grouped by position, specifically in accessibility and awareness, suggesting that organizational role influences how sustainability is perceived and experienced. These results imply that tourism destinations in the province already exhibit strong market appeal and responsible tourism practices, but they still require more consistent role based sustainability communication, stronger internal coordination, and continued investment in accessibility and visitor experience. The study contributes empirical evidence that may guide destination managers, policymakers, and tourism stakeholders in strengthening long term tourism development in Negros Occidental.

Keywords: Competitiveness; Sustainability; Tourism Development; Tourism Industry

Introduction

The tourism industry continues to play a vital role in economic development, cultural exchange, and destination branding. In an increasingly competitive environment, tourism destinations must offer strong visitor experiences, accessible infrastructure, and sustainable practices to remain relevant and attractive to travelers. Competitiveness in tourism refers to a destination's ability to attract and retain visitors by providing quality services, unique attractions, efficient accessibility, and overall satisfaction, while sustainability emphasizes the responsible use of resources, community participation, and the protection of environmental and cultural assets to ensure long term tourism viability (Dwyer et al., 2020; Hanafiah & Zulkifly, 2019; Kusumawardhana et al., 2021).

In the Philippine context, tourism is regarded as a key sector that contributes to local livelihoods and regional development, but it also faces persistent concerns such as infrastructure gaps, environmental pressures, and the need for stronger destination management (Aguilar et al., 2020). These concerns make it important to examine how tourism destinations perform in terms of competitiveness and sustainability, particularly in provinces with rich natural and cultural resources. Negros Occidental is one such province, with diverse attractions and growing tourism activity, yet its tourism performance still needs to be understood in a more systematic and localized manner.

Related literature shows that destination competitiveness is shaped by factors such as attractions, amenities, accessibility, and awareness, while sustainability depends on environmental responsibility, social inclusion, and effective stakeholder involvement (Gössling et al., 2011). Studies also indicate that competitive destinations are often those with strong infrastructure, clear branding, and quality service delivery, whereas sustainable destinations are those that protect natural resources and involve local communities in tourism development. These studies support the view that competitiveness and sustainability are both essential in

assessing tourism performance, but they do not always operate in the same way or at the same level across destinations.

Although existing research has examined tourism competitiveness and sustainability in different settings, there remains a contextual gap in understanding how these variables are manifested in the tourism industry of Negros Occidental. The province has many accredited attractions, but the extent to which these sites are perceived as competitive and sustainable has not been fully explored through a localized empirical study. This gap is timely because tourism stakeholders increasingly need evidence based insights to guide destination planning, service improvement, and sustainability efforts in a post pandemic and fast changing tourism environment (Dwyer et al., 2020; Oka et al., 2021).

The present study addresses this gap by determining the level of competitiveness and sustainability of the tourism industry in Negros Occidental, Philippines, as assessed by tourism personnel from accredited attractions. Specifically, it sought to answer the following research questions: What is the profile of the respondents in terms of educational attainment, length of service, position, employment status, and type of attraction? What is the level of competitiveness of the tourism industry in terms of activities, amenities, accessibility, and awareness? What is the level of sustainability of the tourism industry in terms of activities, amenities, accessibility, and awareness? Is there a significant difference in the level of competitiveness when respondents are grouped according to their profile variables? Is there a significant difference in the level of sustainability when respondents are grouped according to their profile variables?

This study was delimited to 283 tourism personnel from 26 Department of Tourism accredited attractions in 13 cities in Negros Occidental. It focused only on the four dimensions of activities, amenities, accessibility, and awareness, which were measured through a validated researcher made questionnaire. The study excluded tourists, residents, and non accredited tourism sites, and it was limited to the 2025 research period. Innovation and other tourism variables were not included because the study specifically concentrated on competitiveness and sustainability. These delimitations were intended to maintain a focused analysis aligned with the study objectives and the statistical methods used.

The findings are expected to contribute to both academic literature and practical tourism development initiatives in the province. In particular, the study may provide a clearer basis for destination planning, service improvement, and policy support aimed at strengthening both the competitiveness and sustainability of Negros Occidental's tourism industry.

Research Questions

This study aimed to assess the competitiveness and sustainability of the tourism industry in Negros Occidental, Philippines, for the year 2025.

Specifically, this study sought to answer the following questions;

1. What is the profile of the respondents in terms of:
 - 1.1 Educational Attainment,
 - 1.2 Length of Service,
 - 1.3 Position,
 - 1.4 Employment Status, and
 - 1.5 Type of Attraction
2. What is the level of competitiveness of the tourism industry in terms of:
 - 2.1 Activities,
 - 2.2 Amenities,
 - 2.3 Accessibility, and
 - 2.4 Awareness
3. What is the level of sustainability of the tourism industry in terms of:
 - 3.1 Activities,
 - 3.2 Amenities,
 - 3.3 Accessibility, and
 - 3.4 Awareness
4. Is there a significant difference in the level of competitiveness of the tourism industry when respondents are grouped according to:
 - 4.1 Educational Attainment,
 - 4.2 Length of Service,
 - 4.3 Position,
 - 4.4 Employment Status, and
 - 4.5 Type of Attraction
5. Is there a significant difference in the level of sustainability of the tourism industry when respondents are grouped according to:

- 5.1 Educational Attainment,
- 5.2 Length of Service,
- 5.3 Position,
- 5.4 Employment Status, and
- 5.5 Type of Attraction

Scope and Delimitation of the Study

This study focused on assessing the competitiveness and sustainability of the tourism industry in Negros Occidental, Philippines, based on the perceptions of 283 tourism personnel from 26 Department of Tourism accredited attractions across 13 cities. It examined four dimensions of both competitiveness and sustainability, namely activities, amenities, accessibility, and awareness, using a validated researcher made questionnaire. The respondents were limited to tourism personnel directly involved in operations or management because they were considered most knowledgeable about the daily performance and practices of the attractions. The study was limited to accredited tourism attractions in Negros Occidental and did not include tourists, residents, or non accredited sites. It was also restricted to the 2025 research period, so the findings represent conditions observed only within that year. Other possible variables, such as innovation, tourist satisfaction, financial performance, and crisis resilience, were intentionally excluded because the study specifically concentrated on competitiveness and sustainability. These delimitations were set to maintain a focused and manageable investigation aligned with the study objectives and statistical procedures used.

Literature Review

Destination Competitiveness Theory

Destination competitiveness refers to a tourism destination's ability to attract, satisfy, and retain visitors through strong attractions, accessible facilities, quality services, and effective destination management. It is a multidimensional concept because competitiveness is influenced by both the internal resources of a destination and the external market environment in which it operates (Ritchie & Crouch, 2003). This theory is directly relevant to the present study because the indicators used in the questionnaire reflect the major components of destination competitiveness. Activities represent the attractiveness of tourism offerings, amenities reflect service quality, accessibility reflects ease of movement, and awareness reflects the visibility and image of the destination. These elements are consistently identified in the literature as essential drivers of tourism performance, but many studies have examined them in broader or national contexts rather than at the level of a specific provincial tourism system like Negros Occidental (Hanafiah & Zulkifly, 2019). Ritchie and Crouch's framework further emphasizes that competitiveness must be viewed alongside sustainability because a destination cannot remain competitive in the long term if it fails to protect its resources and manage tourism responsibly. This is important to the present study because it allows competitiveness in Negros Occidental to be understood not only as market appeal but also as a reflection of long term tourism viability. However, while the framework is widely cited, there remains limited localized empirical evidence showing how tourism personnel in a Philippine province perceive these competitiveness dimensions in practice, which this study addresses.

Sustainable Tourism Theory

Sustainable tourism refers to tourism development that meets current visitor and host needs while protecting environmental, cultural, and social resources for the future. It is grounded in the idea that tourism should create benefits without degrading the assets that make a destination viable in the first place (Sharpley, 2020; Gössling et al., 2011). This theory applies directly to the present study because sustainability was measured through activities, amenities, accessibility, and awareness, which all reflect how tourism destinations manage resources and communicate responsible practices. Sustainable tourism is not only about environmental protection, but also about inclusion, community participation, and operational responsibility. Studies suggest that sustainability is strongest when it is embedded in everyday destination management rather than treated as a separate or symbolic effort, yet many destinations still struggle to translate sustainability ideals into consistent operational practice (Gössling et al., 2011). The very sustainable ratings in the study suggest that tourism personnel in Negros Occidental perceive sustainable practices as present across accredited attractions. This supports the broader literature that sustainable destinations are those that combine responsible operations with visitor access and awareness. At the same time, the literature also shows that sustainability is often unevenly understood across organizational levels, which makes it important to examine whether perceptions differ by position and other respondent characteristics, as this

study does. In this way, the present research contributes localized evidence on how sustainability is experienced within a provincial tourism context rather than only discussed as a general policy ideal.

Related Studies on Competitiveness

Studies on tourism destination competitiveness consistently show that attractions, facilities, accessibility, and branding shape the overall performance of a destination. Hanafiah and Zulkifly (2019) stressed that competitiveness is closely associated with destination performance and market appeal, especially when tourism assets are well managed and clearly positioned. Their work supports the present study because the same dimensions appear in the competitiveness scale used for Negros Occidental. Cvelbar et al. (2019) also showed that destination competitiveness is a product of multiple interrelated factors rather than a single feature. Their study highlighted the role of destination resources, management, and supporting conditions in strengthening competitiveness. This aligns with the present findings because Negros Occidental was perceived as very competitive across all four indicators, suggesting that the province has a relatively balanced tourism system. However, most related studies emphasize destination level competitiveness in a general sense and do not always focus on how personnel within accredited attractions perceive these factors. The present study fills that gap by assessing competitiveness from the viewpoint of tourism personnel who are directly involved in destination operations.

Related Studies on Sustainability

Research on tourism sustainability emphasizes the importance of environmental responsibility, stakeholder involvement, and long term destination planning. Kusumawardhana et al. (2021) found that sustainable tourism development requires coordination among local actors and attention to both ecological and community concerns. This supports the present study because the sustainability indicators also reflect inclusive and responsible tourism practices. Sharpley (2020) argued that sustainable tourism should be evaluated critically because tourism growth alone does not automatically produce sustainable development. This view is important to the present study because it suggests that high sustainability ratings should still be examined in relation to actual implementation and institutional support. The results from Negros Occidental indicate that sustainability is perceived positively, but the significant difference by position in some indicators also shows that implementation may vary across roles. Existing studies often discuss sustainable tourism conceptually or at a policy level, but fewer studies measure how tourism personnel in accredited attractions actually assess sustainability across operational dimensions such as accessibility and awareness. This study helps address that gap by providing empirical evidence from a specific provincial tourism setting.

Methodology

Research Design

This study employed a quantitative descriptive correlational research design to assess the level of competitiveness and sustainability in the tourism industry of Negros Occidental, Philippines. The design was appropriate because it enabled the researchers to describe the current status of the variables under investigation and determine whether differences existed when respondents were grouped according to selected profile variables. It also allowed the researchers to examine patterns of perception without manipulating any variable. The descriptive component of the design was used to determine the respondents' profile and the level of competitiveness and sustainability in terms of activities, amenities, accessibility, and awareness. The correlational component was used to determine whether competitiveness and sustainability were related and whether these variables differed significantly across groups. Since the study dealt with naturally occurring conditions in accredited tourism attractions, the design was suitable for capturing the actual perceptions of tourism personnel in a real-world setting.

Sampling Design

The study used a combination of fishbowl sampling and purposive sampling. First, two Department of Tourism accredited attractions were selected from each of the 13 cities in Negros Occidental through fishbowl sampling to ensure geographic representation. After the attractions were identified, purposive sampling was used to select respondents who were directly involved in tourism operations or management. This sampling strategy ensured that the participants had sufficient knowledge and exposure to the daily activities and sustainability practices of the attractions. A total of 283 tourism personnel participated in the study. Their inclusion was considered appropriate because they were in a position to provide informed and experience-based assessments of the competitiveness and sustainability of the tourism industry in the province.

Research Locale

The study was conducted in Negros Occidental, Philippines, specifically in 26 Department of Tourism accredited attractions located in 13 cities. The province was selected because of its diverse tourism offerings, which include natural attractions, cultural sites, heritage destinations, farm tourism, and leisure-based attractions. This diversity made the locale appropriate for examining competitiveness and sustainability in a provincial tourism context. Negros Occidental also provided a relevant setting because tourism development in the province depends on the balance of destination appeal, accessibility, and responsible resource management. By focusing on accredited attractions, the study was able to examine tourism performance in locations that already meet basic standards of operation and recognition, making the findings useful for destination planning and tourism management.

Research Participants

The participants were tourism personnel directly involved in the operations or management of the selected accredited attractions. They were chosen because of their familiarity with the actual functioning of the tourism sites and their capacity to evaluate both competitiveness and sustainability from an internal operational perspective. Most of the respondents were bachelor's degree holders, had less than three years of service, were permanently employed, and occupied rank and file positions. Many were assigned to natural attractions, while others were working in man made attractions. Their profile indicates that the tourism workforce in the province is largely operational and service oriented, which makes their responses valuable for understanding how tourism practices are experienced at the ground level.

Research Instrument

The main data gathering tool was a researcher made questionnaire developed based on the conceptual framework and research objectives of the study. The questionnaire consisted of three parts: respondent profile, competitiveness, and sustainability. The competitiveness and sustainability sections each contained 20 statements rated using a five point Likert scale. The instrument was validated by experts using the Good and Scates criteria to ensure content relevance, clarity, and adequacy. It was also pilot tested among 30 tourism personnel from E. B. Magalona to establish reliability. The pilot test produced acceptable Cronbach alpha coefficients, indicating that the instrument was internally consistent. This process increased confidence that the questionnaire measured the intended constructs accurately and could be used for the main study.

Data Gathering Procedure

Before data collection, the researchers secured permission from the appropriate authorities and coordinated with tourism offices and attraction representatives. The questionnaires were personally administered and retrieved to ensure clarity of instruction, proper response collection, and completeness of data. Confidentiality and anonymity were observed throughout the process to protect the respondents' identities and responses. After retrieval, the responses were encoded and analyzed using Microsoft Excel and SPSS. Frequency and percentage were used for respondent profile, while the mean was used to interpret the levels of competitiveness and sustainability. The Mann Whitney U test, Kruskal Wallis H test, and Spearman rho were then applied for inferential analysis.

Results and Discussions

Research Question 1: What is the profile of the respondents in terms of educational attainment, length of service, position, employment status, and type of attraction.

Table 1. Profile of the Respondents

Profile	f	%
Educational Attainment		
Master's Degree	15	5.3
Bachelor Degree	268	94.7
Length of Service		
< 3 years	209	73.8
3-5 years	65	23.0
6-9 years	9	3.2
Employment Status		
Permanent	196	69.3
Contractual	87	30.7
Position		
Managerial	7	2.5

Supervisory	19	6.7
Rank and file	257	90.8
Type of Attraction		
Natural	157	55.5
Man-made	126	44.5
Total	283	100

Table 1 shows that most respondents were bachelor's degree holders, had less than three years of service, were permanently employed, occupied rank and file positions, and worked in natural attractions. This profile suggests that the tourism workforce in Negros Occidental is largely composed of operational personnel with relatively limited tenure but direct involvement in day-to-day tourism service delivery. The dominance of bachelor's degree holders indicates that tourism attractions tend to employ personnel with formal academic preparation, which may contribute to a basic shared understanding of tourism concepts and practices. At the same time, the high proportion of respondents with less than three years of service suggests a relatively young or newly hired workforce. This may reflect turnover, workforce expansion, or the recent growth of tourism operations in the province. The large number of rank-and-file personnel further indicates that most of the respondents are engaged in frontline functions rather than managerial decision-making, making their perceptions valuable for understanding operational realities. These findings are consistent with the idea that tourism performance is shaped not only by destination features but also by the structure and capacity of the workforce that manages them (Hanafiah & Zulkifly, 2019).

Research Question 2: Level of Competitiveness of the Tourism Industry in terms of Activities, Amenities, Accessibility, and Awareness as Assessed by Respondents When Taken as a Whole.

Table 2. Level of Competitiveness When Taken as a Whole

Items		Mean	Description
<i>The tourism destination.....</i>			
Activities			
1.	boasts a diverse array of activities catering to various interests and preferences, ensuring an enriching experience for all types of tourists.	4.82	Very Competitive
2.	effectively highlights its unique selling points to attract visitors.	4.78	Very Competitive
3.	provides unique and authentic experiences that differentiate it from competitors.	4.87	Very Competitive
4.	activities are sufficient activities to encourage multi-day visits.	4.83	Very Competitive
5.	are consistently reviewed and adapt to changing trends and preferences in the tourism industry.	4.80	Very Competitive
Amenities			
1.	ensures that its amenities offer a diverse range of options catering to different visitor preferences.	4.82	Very Competitive
2.	prioritizes the maintenance and enhancement of its amenities to meet or exceed industry standards.	4.82	Very Competitive
3.	provides unique and state-of-the-art amenities that set it apart from competitors.	4.83	Very Competitive
4.	offers wide range of food and beverage options available that cater to diverse dietary preferences and restrictions.	4.83	Very Competitive
5.	continually upgrades and invests in its amenities to ensure they remain attractive and competitive in the ever-evolving tourism sector.	4.79	Very Competitive
Accessibility			
1.	ensures easy accessibility by facilitating connections with various modes of transportation, including air, road, and rail.	4.80	Very Competitive
2.	enhances accessibility by investing in infrastructure that supports diverse transportation modes, ensuring seamless travel experiences for visitors.	4.84	Very Competitive
3.	maintains clear and user-friendly signage and wayfinding systems for tourists.	4.86	Very Competitive
4.	is proximity to major transportation hubs which enhances accessibility, attracting more visitors and boosting its competitiveness	4.85	Very Competitive
5.	offers comprehensive information channels, simplifying the process of accessing travel details for visitors.	4.82	Very Competitive

Awareness			
1.	has a clear and recognizable brand that stands out in tourism marketing.	4.84	Very Competitive
2.	leverages social media effectively to engage with potential and previous visitors.	4.80	Very Competitive
3.	has partnerships with local businesses and influencers to increase its visibility.	4.77	Very Competitive
4.	has an informative and user-friendly website that provides a virtual preview of visitor experiences.	4.83	Very Competitive
5.	has received positive media coverage that has enhanced its reputation and awareness among potential visitors.	4.86	Very Competitive
Mean		4.82	Very Competitive

Table 2 shows that the tourism industry in Negros Occidental was assessed as very competitive, with an overall mean of 4.82. All four dimensions, namely activities, amenities, accessibility, and awareness, were likewise rated very competitive. Among the indicators, the strongest responses pointed to unique and authentic experiences, well maintained and diversified amenities, clear signage and proximity to transport hubs, and strong destination visibility through branding and media exposure. These findings suggest that tourism destinations in the province are not only attractive but also operationally well positioned to meet visitor expectations. The strong rating for activities indicates that attractions are perceived to offer distinctive experiences that can differentiate them from competitors. High scores in amenities and accessibility imply that the tourism industry has invested in visitor convenience and supporting infrastructure, both of which are essential in sustaining destination appeal. The results also show that awareness is not left to chance but is supported by recognizable branding and effective communication strategies. This pattern is consistent with destination competitiveness literature which emphasizes that competitiveness emerges from the combined strength of attractions, service quality, accessibility, and image management (Dwyer et al., 2020).

Table 3. Competitiveness by Profile

Profile	Mean	Description
Educational Attainment		
Master's Degree	4.84	Very Competitive
Bachelor Degree	4.82	Very Competitive
Length of Service		
< 3 years	4.83	Very Competitive
3-5 years	4.82	Very Competitive
6-9 years	4.81	Very Competitive
Employment Status		
Permanent	4.83	Very Competitive
Contractual	4.81	Very Competitive
Position		
Managerial	4.82	Very Competitive
Supervisory	4.81	Very Competitive
Rank and file	4.82	Very Competitive
Type of Attraction		
Natural	4.83	Very Competitive
Man-made	4.81	Very Competitive

Table 3 shows that competitiveness remained very high across all respondent groups. The differences in mean scores were minimal, which indicates a broadly shared perception of strong tourism performance regardless of educational attainment, length of service, employment status, position, or type of attraction. This consistency is important because it suggests that competitiveness is experienced as a general condition across the tourism system rather than as a perception limited to a particular group. The slightly higher ratings among master's degree holders, newer personnel, permanent employees, and respondents from natural attractions may reflect differences in exposure, training, or engagement with destination operations, but these differences are too small to indicate any meaningful divide. Overall, the data imply that the province's tourism competitiveness is institutionally embedded and recognized across occupational categories, which supports the view that destination competitiveness depends on integrated management

and coordinated destination resources rather than isolated individual characteristics (Hanafiah & Zulkifly, 2019).

Research Question 3: Level of Sustainability in the Tourism Industry in terms of Activities, Amenities, Accessibility, and Awareness as Assessed by Respondents When Taken as a Whole.

Table 4. Level of Sustainability When Taken as a Whole

Items	Mean	Description
<i>The tourism destination.....</i>		
Activities		
1. incorporates eco-friendly practices into its activities to minimize environmental impact.	4.83	Very Sustainable
2. promotes eco-friendly activities such as nature walks, birdwatching, or hiking.	4.80	Very Sustainable
3. engages in community-based tourism activities that benefit local residents and support conservation efforts.	4.80	Very Sustainable
4. educates visitors about sustainability to effectively raise awareness about environmental conservation and sustainability.	4.83	Very Sustainable
5. measures the carbon footprint of its activities and takes steps to offset its impact.	4.82	Very Sustainable
Amenities		
1. has eco-friendly amenities, such as water refill stations or biodegradable toiletries.	4.85	Very Sustainable
2. offers sustainable dining options.	4.82	Very Sustainable
3. promotes the use of reusable or biodegradable materials in amenities.	4.82	Very Sustainable
4. partners with local environmental organizations or initiatives to implement sustainable amenity projects.	4.85	Very Sustainable
5. prioritizes energy efficiency and resource conservation.	4.85	Very Sustainable
Accessibility		
1. provides accessible transportation options.	4.86	Very Sustainable
2. ensures accessibility for visitors with disabilities.	4.78	Very Sustainable
3. provides resources and services for visitors with diverse needs.	4.81	Very Sustainable
4. promotes inclusivity and diversity in its offerings.	4.82	Very Sustainable
5. ensures that its facilities, services, and information are easily accessible to visitors with diverse needs.	4.84	Very Sustainable
Awareness		
1. has visible signage on-site that informs visitors about its sustainable practices.	4.83	Very Sustainable
2. sustainability initiatives are highlighted on its website and social media channels.	4.85	Very Sustainable
3. collects visitor feedback on its sustainability practices to gauge awareness and effectiveness.	4.83	Very Sustainable
4. staff are trained to discuss sustainability practices with visitors, enhancing overall awareness.	4.82	Very Sustainable
5. partners with eco-friendly organizations to raise awareness of sustainability issues.	4.84	Very Sustainable
Mean	4.83	Very Sustainable

Table 4 indicates that the tourism industry in Negros Occidental was assessed as very sustainable, with an overall mean of 4.83. All indicators under activities, amenities, accessibility, and awareness were rated very sustainable. The highest scoring items highlighted eco-friendly amenities, accessible transportation, and sustainability awareness communicated through signage, websites, and staff engagement. These results show that sustainability is perceived not as a symbolic feature but as part of regular tourism operations. The strong ratings in activities suggest that attractions are incorporating eco-conscious practices into visitor experiences. The high scores in amenities show that environmental care is being integrated into the physical and service environment of attractions. Accessibility also emerged as a strength, indicating that sustainability in this context includes inclusivity and accommodation of diverse visitor needs. Awareness received similarly high ratings, showing that sustainable practices are being communicated to visitors and supported through staff training and external partnerships. This reflects the broader view that sustainable tourism depends on operational consistency, stakeholder participation, and visible communication rather than isolated green initiatives (Gössling, Hall, & Weaver, 2011; Sharpley, 2020; Kusumawardhana et al., 2021).

Table 5. Sustainability by Profile

Profile	Mean	Description
Educational Attainment		
Master's Degree	4.83	Very Sustainable
Bachelor Degree	4.83	Very Sustainable
Length of Service		
< 3 years	4.83	Very Sustainable
3-5 years	4.82	Very Sustainable
6-9 years	4.79	Very Sustainable
Employment Status		
Permanent	4.83	Very Sustainable
Contractual	4.82	Very Sustainable
Position		
Managerial	4.68	Very Sustainable
Supervisory	4.74	Very Sustainable
Rank and file	4.82	Very Sustainable
Type of Attraction		
Natural	4.83	Very Sustainable
Man-made	4.83	Very Sustainable

Table 5 shows that sustainability was also rated very sustainable across all respondent groups. The means were tightly clustered, indicating strong agreement among respondents regardless of educational attainment, length of service, employment status, position, or type of attraction. The small differences in mean scores suggest that sustainability practices are widely recognized across the tourism workforce. Managerial personnel posted slightly lower means in some areas, which may reflect a more critical or strategic perspective, while rank and file employees often recorded slightly higher means because they are directly exposed to day-to-day implementation. Still, these differences do not change the overall interpretation. The findings imply that sustainability practices are broadly institutionalized in the province and are visible across operational levels. This strengthens the view that sustainability in Negros Occidental is not confined to specific sites or roles but is present in the general tourism culture of the province (Gössling, Hall, & Weaver, 2011; Sharpley, 2020).

Research Question 5: Differences in the Level of Competitiveness of the Tourism Industry in terms of Activities, Amenities, Accessibility, and Awareness as Assessed by Respondents when classified according to Educational Attainment, Employment Status, and Type of Attraction.

Table 6. Differences in Competitiveness by Profile

Profile		Mean Rank	U-Value	P-Value	Interpretation	
Educational Attainment	Activities	Master's degree	136.90	1933.500	0.791	Not significant
		Bachelor's degree	142.29			
	Amenities	Master's degree	157.17	1782.500	0.433	Not significant
		Bachelor's degree	141.15			
	Accessibility	Master's degree	174.27	1526.000	0.091	Not significant
		Bachelor's degree	140.19			
	Awareness	Master's degree	142.33	2005.000	0.978	Not significant
		Bachelor's degree	141.98			
Employment Status	Activities	Permanent	147.11	7524.500	0.093	Not significant
		Contractual	130.49			

Type of Attraction	Amenities	Permanent	146.15	7712.000	0.173	Not significant
		Contractual	132.64			
	Accessibility	Permanent	141.70	8467.000	0.920	Not significant
		Contractual	142.68			
	Awareness	Permanent	139.38	8012.000	0.171	Not significant
		Contractual	147.91			
	Activities	Natural	144.71	9465.500	0.507	Not significant
		Manmade	138.62			
	Amenities	Natural	144.35	9522.500	0.567	Not significant
		Manmade	139.08			
	Accessibility	Natural	142.51	9811.000	0.900	Not significant
		Manmade	141.37			
	Awareness	Natural	143.04	9727.000	0.685	Not significant
		Manmade	140.70			

Table 6 shows that there were no significant differences in competitiveness when respondents were grouped according to educational attainment, employment status, and type of attraction. All p values exceeded 0.05, indicating that perceptions of competitiveness were statistically similar across these categories. This means that respondents, regardless of background or organizational placement, shared a common view that tourism destinations in Negros Occidental are competitive. The absence of significant differences suggests that competitiveness is consistently experienced throughout the industry, likely because the same destination qualities are visible to personnel across different attractions. It also implies that competitiveness may be shaped more by the general tourism environment, management practices, and destination infrastructure than by individual respondent characteristics. This interpretation aligns with the understanding that destination competitiveness is a product of multiple interrelated factors, including resources, infrastructure, accessibility, and market positioning (Hanafiah & Zulkifly, 2019).

Table 7. Differences in Competitiveness by Profile

Table 7. Differences in Competitiveness by Profile						
Profile		Mean Rank	H-Value	P-Value	Interpretation	
Position	Activities	Managerial	126.86	0.524	0.769	Not Significant
		Supervisory	141.68			
		Rank and File	151.95			
	Amenities	Managerial	172.29	1.088	0.581	Not Significant
		Supervisory	141.67			
		Rank and File	135.37			
	Accessibility	Managerial	130.71	0.424	0.809	Not Significant
		Supervisory	143			
		Rank and File	132.58			
	Awareness	Managerial	157.14	2.75	0.253	Not Significant
		Supervisory	143.74			
		Rank and File	112.95			
Length of service	Activities	< <3 years	141.86	4.067	0.131	Not significant
		3-5 years	135.70			
		6-9 years	190.72			
	Amenities	< 3 years	142.42	1.585	0.453	Not significant
		3-5 years	144.98			
		6-9 years	110.78			
	Accessibility	< 3 years	143.86	0.602	0.740	Not significant

Awareness	3-5 years	135.60	2.720	0.257	Not significant
	6-9 years	145.11			
	< 3 years	143.01			
	3-5 years	144.48			
	6-9 years	100.67			

Table 7 likewise shows no significant differences in competitiveness when respondents were grouped according to position and length of service. This indicates that personnel at different organizational levels and tenure groups perceive tourism competitiveness in a similar way. The result suggests that competitiveness is not filtered through hierarchy or years of experience in a way that produces diverging judgments. Even personnel with shorter tenure or lower rank appear to recognize the same strong destination qualities as those with longer service or higher roles. This may mean that the tourism environment in Negros Occidental is sufficiently visible and consistent that its competitive strengths are widely observed across the workforce. The finding supports the view that destination competitiveness becomes more stable when attractions maintain coherent service quality, access, and branding across the whole tourism system.

Research Question 5: Differences in the Level of Sustainability in the Tourism Industry in terms of Activities, Amenities, Accessibility, and Awareness as Assessed by Respondents when classified according to Educational Attainment, Employment Status, and Type of Attraction.

Table 8. Differences in Sustainability by Profile

Table 8. Differences in Sustainability by Profile						
	Profile		Mean Rank	U-Value	P-Value	Interpretation
Educational Attainment	Activities	Master's degree	150.30	1885.500	0.667	Not significant
		Bachelor's degree	141.54			
	Amenities	Master's degree	132.57	1868.500	0.621	Not significant
		Bachelor's degree	142.53			
	Accessibility	Master's degree	136.70	1930.500	0.784	Not significant
		Bachelor's degree	142.30			
	Awareness	Master's degree	147.80	1923.000	0.761	Not significant
		Bachelor's degree	141.68			
Employment Status	Activities	Permanent	144.92	7953.000	0.337	Not significant
		Contractual	135.41			
	Amenities	Permanent	141.13	8355.500	0.773	Not significant
		Contractual	143.96			
	Accessibility	Permanent	147.54	7440.500	0.069	Not significant
		Contractual	129.52			
	Awareness	Permanent	141.55	8438.500	0.882	Not significant
		Contractual	143.01			
Type of Attraction	Activity	Natural	143.04	9727.000	0.799	Not significant
		Manmade	140.70			
	Amenities	Natural	139.75	9537.500	0.578	Not significant
		Manmade	144.81			
	Accessibility	Natural	143.19	9704.500	0.772	Not significant
		Manmade	140.52			
	Awareness	Natural	142.48	9815.000	0.905	Not significant
		Manmade	141.40			

Table 8 shows that sustainability did not significantly differ across educational attainment, employment status, and type of attraction. All p values were above 0.05, indicating a common perception that sustainability is present across respondent categories. This finding suggests that sustainable practices are being observed across the province in a fairly uniform way. It may also indicate that tourism attractions operate under similar sustainability expectations, policies, or standards regardless of the personnel profile. The similarity across groups strengthens the interpretation that sustainability is becoming a shared operational feature within Negros Occidental's tourism industry rather than a practice limited to specific attractions or personnel segments. This is consistent with the view that sustainable tourism is strengthened when environmental responsibility and stakeholder participation are integrated across all levels of destination management (Gössling, Hall, & Weaver, 2011; Kusumawardhana et al., 2021; Sharpley, 2020).

Table 9. Differences in Sustainability by Profile

Profile		Mean Rank	U-Value	P-Value	Interpretation
Position	Managerial	107.86	1.504	0.471	Not Significant
	Supervisory	143.53			
	Rank and File	133.84			
	Managerial	125.36	2.620	0.270	Not Significant
	Supervisory	144.46			
	Rank and File	114.87			
	Managerial	58.57	9.215	0.010	Significant
	Supervisory	145.88			
	Rank and File	120.26			
	Managerial	47.57	12.194	0.002	Significant
	Supervisory	146.56			
	Rank and File	115.13			
Length of service	< 3 years	144.61	0.927	0.629	Not significant
	3-5 years	134.34			
	6-9 years	136.83			
	< 3 years	142.83	0.166	0.920	Not significant
	3-5 years	138.78			
	6-9 years	146.00			
	< 3 years	144.07	1.223	0.542	Not significant
	3-5 years	138.82			
	6-9 years	116.89			
	< 3 years	140.20	3.512	0.173	Not significant
	3-5 years	152.83			
	6-9 years	105.50			

Table 9, however, shows a different pattern. While most sustainability indicators did not differ significantly by position and length of service, accessibility and awareness showed significant differences by position. This means that perceptions of sustainability in these areas vary depending on organizational role. This result is important because accessibility and awareness are often areas where responsibilities differ across positions. Managerial personnel are more likely to be involved in planning, policy, and resource allocation, while supervisory and rank-and-file staff are more exposed to implementation and daily visitor interaction. As a result, their perceptions of sustainability may differ depending on what aspects of the operation they can directly observe or influence. The lack of significant differences by length of service, however, suggests that experience alone does not substantially change perceptions of sustainability. The key factor appears to be organizational role rather than tenure. This pattern is consistent with the literature showing that sustainability implementation may vary across institutional levels even when the overall destination is perceived as sustainable (Sharpley, 2020; Kusumawardhana et al., 2021).

Ethical Considerations

This study was conducted only after the necessary ethical clearance and institutional approval were secured from the appropriate authorities prior to data collection. The researcher ensured that all procedures adhered to accepted ethical standards for human participant research, including respect for persons, beneficence, and confidentiality. Before answering the questionnaire, all respondents were fully informed about the purpose of the study, the nature of their participation, and the intended use of the data. Informed consent was obtained from each respondent, and participation was entirely voluntary. The respondents were informed that they could refuse to participate or withdraw from the study at any time without penalty, loss of benefit, or negative consequence. Their privacy and anonymity were strictly protected throughout the research process. No names or identifying details were disclosed in the data collection, analysis, or presentation of findings. The collected information was used solely for academic and research purposes and was stored and handled with due regard for data privacy and responsible research practice. The researcher also took care to avoid any form of coercion, harm, or undue influence during the conduct of the study. The dignity, welfare, and rights of the participants were respected at all stages of the research. In addition, all sources used in the preparation of the manuscript were properly acknowledged to avoid plagiarism, and the researcher declared that no conflict of interest existed in the conduct and reporting of the study. If any AI-assisted tool was used in the preparation of the manuscript, this was disclosed in accordance with transparency requirements.

Conclusion

The study concluded that the respondents were mostly bachelor's degree holders, had less than three years of service, were rank and file employees, were permanently employed, and were assigned to natural attractions. This profile suggests that the tourism workforce in Negros Occidental is largely composed of operational personnel with relatively limited tenure but active involvement in the day to day management of attractions. The tourism industry in Negros Occidental was found to be very competitive in terms of activities, amenities, accessibility, and awareness. This indicates that the tourism destinations in the province generally provide diverse and authentic experiences, adequate and attractive facilities, accessible travel conditions, and strong public visibility. These characteristics show that the province has been able to maintain a high level of appeal in the tourism market. The tourism industry was also found to be very sustainable in terms of activities, amenities, accessibility, and awareness. This means that tourism destinations in the province are practicing eco friendly, inclusive, and responsible measures that support long term tourism development. The findings suggest that sustainability is not only present but also strongly integrated into the operations of tourism attractions in Negros Occidental. In addition, the study revealed that there were no significant differences in the level of competitiveness when respondents were grouped according to educational attainment, length of service, position, employment status, and type of attraction. This implies that the perception of competitiveness is generally consistent across different respondent groups. Likewise, there were no significant differences in the level of sustainability when respondents were grouped according to educational attainment, length of service, employment status, and type of attraction. However, significant differences were found when respondents were grouped according to position in terms of accessibility and awareness, indicating that job role influences how sustainability is perceived in these areas. Overall, the study concluded that competitiveness and sustainability are both strongly evident in the tourism industry of Negros Occidental. However, while these dimensions are generally perceived positively across the province, there remains a need to strengthen role based sustainability awareness and accessibility practices, especially among personnel occupying different positions.

Recommendations

Based on the findings of the study, tourism destination managers in Negros Occidental should continue strengthening the factors that make their attractions competitive by sustaining diverse and authentic activities, maintaining high-quality and visitor-friendly amenities, improving accessibility, and enhancing destination visibility through effective branding, online presence, and media engagement. Since the tourism industry in the province was found to be very competitive, maintaining service quality and continuously improving visitor experiences should remain a priority. Tourism officials and attraction managers should also further enhance sustainability practices by promoting eco-friendly operations, resource conservation, inclusive accessibility, and stronger sustainability awareness among staff and visitors. Since the study revealed that the tourism industry is very sustainable, these practices should be institutionalized and regularly monitored to ensure consistent implementation across all attractions. Because significant differences were found in sustainability in terms of accessibility and awareness when respondents were grouped according to position, tourism administrators should provide targeted orientation, regular



training, and internal communication programs for managerial, supervisory, and rank-and-file personnel. This may help ensure a more uniform understanding and application of sustainability measures across all organizational levels. The local government units and tourism stakeholders of Negros Occidental should also strengthen coordination with private tourism operators, community partners, and environmental organizations to support integrated tourism planning. A collaborative approach may help sustain the province's competitiveness while reinforcing responsible tourism development. For future researchers, it is recommended that similar studies be conducted using a larger sample, other provinces, or different types of tourism stakeholders such as tourists, community residents, and tourism entrepreneurs. Future studies may also explore other variables that may influence competitiveness and sustainability, or use a mixed-methods approach to obtain deeper explanations of the observed results.

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