

The Role of Social Media Marketing in Enhancing the Intention to Visit Ecotourism Destinations through Environmental Awareness: A Field Study on a Sample of Tourists in Chr  a

دور التسويق عبر مواقع التواصل الاجتماعي في تعزيز نية زيارة الوجهات السياحية البيئية من خلال
نشر الوعي البيئي: دراسة ميدانية على عينة من سياح الشريعة

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Abstract:

This study investigates the impact of social media marketing on tourists' intention to visit ecotourism destinations, with a particular focus on the mediating role of environmental awareness. The empirical research was conducted on visitors to Chr  a National Park, one of Algeria's leading ecotourism sites. Data were collected from a sample of 153 tourists through a structured questionnaire and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) via SmartPLS 4.1.1.1. The results reveal that social media marketing exerts both direct and indirect effects on tourists' intention to visit ecotourism destinations, with environmental awareness acting as a significant partial mediator. These findings highlight the crucial role of social media content and engagement strategies in enhancing environmental consciousness and promoting sustainable tourism behavior. The study provides valuable insights for tourism marketers and destination managers seeking to leverage digital communication tools to encourage eco-friendly travel intentions.

Keywords: Social Media Marketing; Intention to Visit Ecotourism Destinations; Environmental Awareness; Tourists.

JEL Classification Codes: M31, L83, Q01, D91.

ملخص:

تتناول هذه الدراسة أثر التسويق عبر وسائل التواصل الاجتماعي على نية السياح في زيارة الوجهات السياحية البيئية، مع التركيز بشكل خاص على الدور الوسيط للوعي البيئي. أُجري البحث الميداني على عينة من زوار الحديقة الوطنية الشريعة، إحدى أبرز الوجهات السياحية البيئية في الجزائر. تم جمع البيانات من عينة مكونة من 153 سائحًا باستخدام استبيان منظم، وتحليلها من خلال نموذج المعادلات البنائية بطريقة المربعات الصغرى الجزئية (PLS-SEM) باستخدام برنامج SmartPLS 4.1.1.1. أظهرت النتائج أن التسويق عبر وسائل التواصل الاجتماعي يؤثر بشكل مباشر وغير مباشر على نية السياح في زيارة الوجهات السياحية البيئية، حيث يلعب الوعي البيئي دورًا وسيطًا جزئيًا ذا دلالة إحصائية. وتؤكد هذه النتائج على الدور المحوري لاستراتيجيات المحتوى الرقمي والتفاعل عبر المنصات الاجتماعية في تعزيز الوعي البيئي وتشجيع السلوك السياحي المستدام. كما توفر الدراسة رؤى قيمة للمسوقين والمديرين في قطاع السياحة حول كيفية تسخير أدوات الاتصال الرقمية لتعزيز نوايا السفر الصديقة للبيئة.

كلمات مفتاحية: التسويق عبر مواقع التواصل الاجتماعي، نية زيارة الوجهات السياحية البيئية، الوعي البيئي، السياح.

1. Introduction

In recent years, the global tourism industry has increasingly recognized the importance of sustainability and environmental protection as key components of long-term competitiveness. Within this context, ecotourism has emerged as a vital approach to promoting responsible travel that conserves natural environments, supports local communities, and fosters environmental awareness among visitors. However, despite growing interest in eco-friendly travel, many destinations still struggle to attract and retain environmentally conscious tourists. At the same time, the rapid growth of social media marketing (SMM) has revolutionized how destinations communicate with potential visitors. Through interactive platforms such as Facebook, Instagram, and YouTube, destinations can share engaging content, encourage user participation, and influence tourists' perceptions and intentions. Social media not only shapes the image of destinations but also plays a crucial role in promoting sustainable and environmentally responsible tourism behaviors.

Given this context, understanding the relationship between social media marketing, environmental awareness, and tourists' intention to visit ecotourism destinations becomes essential. While previous research has explored the role of SMM in general tourism promotion, limited studies have focused on its indirect effect through environmental awareness especially within the context of developing countries and nature-based destinations. This study aims to fill this gap by empirically examining how SMM contributes to enhancing individuals' environmental awareness and, consequently, their intention to visit ecotourism destinations.

Research Problem

Despite the remarkable growth in the use of social media for tourism promotion, the extent to which this type of marketing influences tourists' intentions to visit ecotourism destinations remains unclear, especially when environmental awareness acts as a mediating factor. Understanding how digital messages and interactive content shape individuals' perceptions of environmental issues can contribute to designing more sustainable and effective marketing strategies that attract visitors to eco-friendly destinations. Accordingly, the main research question can be stated as follows: **What is the role of social media marketing in enhancing the intention to visit ecotourism destinations through environmental awareness?**

Research Hypotheses

Based on the research problem formulated above, the following hypotheses have been proposed:

H₀1: There is no statistically significant impact of social media marketing on the intention to visit ecotourism destinations.

H₀2: There is no statistically significant impact of social media marketing on environmental awareness.

H₀3: There is no statistically significant impact of environmental awareness on the intention to visit ecotourism destinations.

H₀4: There is no statistically significant impact of social media marketing on the intention to visit ecotourism destinations through environmental awareness.

Research Significance

This study is significant as it bridges social media marketing and environmental awareness in explaining tourists' intention to visit ecotourism destinations. It provides a new perspective by

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examining the mediating role of environmental awareness, offering insights into how social media can foster environmentally responsible behavior and encourage visits to eco-friendly destinations.

Research Methodology

This study adopts a descriptive-analytical approach to examine the impact of social media marketing on the intention to visit ecotourism destinations, with environmental awareness serving as a mediating variable. Data were collected through a questionnaire distributed to tourists visiting Chréa, one of Algeria's most prominent ecotourism destinations. A total of 153 valid responses were obtained. The data were analyzed using SmartPLS 4 software using the Partial Least Squares Structural Equation Modeling (PLS-SEM) technique to assess the relationships among the study variables.

Research Structure

The study is structured into two main parts:

Theoretical Part: This section reviews the theoretical literature related to the study's topic, presents previous studies, and highlights the added value of the current research.

Applied Part: This section presents the research methodology, analyzes the survey data using Smart PLS, and discusses the findings obtained from the empirical analysis.

2. Theoretical and Empirical literature Review

2.1. Theoretical background of the Study

2.1.1. Social Media Marketing

2.1.1.1. Definition

Social media marketing refers to the strategic use of social networking platforms to promote products, services, or destinations by creating, sharing, and interacting with digital content that aims to attract, engage, and influence target audiences. It focuses on building relationships, increasing awareness, and stimulating behavioral intentions through online interactions and digital word-of-mouth communication. (Li et al., 2021)

2.1.1.2. Dimensions

- **Content Quality:** Refers to the relevance, accuracy, and attractiveness of the information shared on social media platforms. High-quality content captures users' attention, enhances engagement, and shapes positive perceptions toward the promoted destination. (Kim et al., 2017)
- **Interactivity:** Represents the level of two-way communication between users and content providers. It includes likes, comments, shares, and direct engagement that allow users to participate actively rather than being passive recipients of information. (Bozkurt et al., 2021)
- **Credibility and Trust:** Relates to the degree of reliability, transparency, and authenticity perceived in the social media messages. Trustworthy content and sources enhance users' confidence in the promoted destination and reduce uncertainty. (Wang et Yan, 2022)
- **Electronic Word of Mouth:** Denotes the online sharing of opinions, experiences, and recommendations among users. Positive eWOM significantly influences potential visitors' decisions and strengthens their intention to visit a destination. (Ishida et al., 2016)

2.1.2. Environmental Awareness

2.1.2.1. Definition

Environmental awareness refers to the level of understanding, concern, and responsible behavior that individuals demonstrate regarding environmental issues and sustainability. It reflects how people perceive their relationship with the environment and their willingness to adopt practices that protect natural resources. (Shahrukh et al., 2021)

2.1.2.2. Dimensions

- **Environmental Knowledge:** Involves individuals' understanding of environmental concepts, problems, and sustainable practices. It includes awareness of issues such as pollution, resource depletion, and biodiversity conservation. (Shahrukh et al., 2021)
- **Environmental Concern:** Represents the emotional aspect of awareness the degree to which individuals care about and feel responsible for the state of the environment and its preservation. (Farrukh et al., 2022)
- **Environmental Responsibility:** Refers to the moral and personal obligation to take actions that minimize negative environmental impacts. It highlights proactive behaviors such as following eco-friendly guidelines and supporting green initiatives. (Wang et al., 2023)
- **Pro-environmental Behavior:** Describes the actual actions individuals take to protect the environment, such as recycling, reducing waste, or supporting sustainable tourism. It reflects the practical side of environmental awareness. (Zhang et al., 2024)

2.1.3. Intention to Visit Ecotourism Destination

2.1.3.1. Definition

Intention to visit ecotourism destinations refers to the individual's planned or deliberate decision to engage in travel activities that promote nature-based and environmentally responsible experiences. It reflects the psychological readiness and motivation to visit eco-friendly destinations. (Pham et Khanh, 2021)

2.1.3.2. Dimensions

- **Attitude toward Ecotourism:** Represents the individual's overall positive or negative evaluation of visiting ecotourism destinations. A favorable attitude increases the likelihood of actual visit intentions. (Zhang et al., 2021)
- **Subjective Norms:** Relate to the perceived social pressure or influence from family, friends, and society regarding the decision to visit eco-friendly destinations. (Han et al., 2010)
- **Perceived Behavioral Control:** Refers to an individual's perception of their ability and resources (time, money, information) to perform the behavior of visiting an ecotourism site successfully. (Kim et al., 2023)
- **Actual Intention to Visit:** Reflects the concrete plans and willingness to visit an ecotourism destination within a specific period, showing the transition from interest to action. (Jin et al., 2020)

2.2. Empirical literature Related to the study

2.2.1. Previous Studies

In 2021, (Pham et Khanh, 2021) conducted a study titled "The Significance of Digital Marketing in Shaping Ecotourism Behaviour through Destination Image." The research aimed

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to examine the impact of digital marketing strategies on tourists' ecotourism behavior by emphasizing the mediating role of destination image. Using a quantitative design, data were collected through an online questionnaire distributed among visitors to several nature-based destinations. The analysis, performed using the Partial Least Squares Structural Equation Modeling (PLS-SEM) technique, revealed that digital marketing significantly enhances tourists' pro-environmental behavior by strengthening their positive perceptions and emotional connection with the destination, thereby increasing their intention to visit ecotourism sites.

In 2023, (Kilipiri et al., 2023) published a study entitled "Social Media and Influencer Marketing for Promoting Sustainable Tourism Destinations: The Instagram Case." This research explored how influencer-based marketing and interactive social media content, particularly on Instagram, contribute to promoting sustainable tourism destinations. The authors adopted an empirical quantitative approach combining content analysis of influencer posts with survey data collected from followers interested in sustainable travel. The findings demonstrated that visual storytelling, credibility, and engagement through influencers significantly affect tourists' attitudes and intentions toward visiting sustainable destinations, highlighting the pivotal role of social media marketing in shaping eco-conscious travel behavior.

In 2024, (Zhang et al., 2024) presented their work "Pro-Environmental Behavior of Tourists in Ecotourism Scenic Spots: The Promoting Role of Tourist Experience Quality and Place Attachment." The study investigated the factors influencing tourists' pro-environmental behaviors within ecotourism destinations, focusing on how experience quality and place attachment shape such behaviors. Based on survey data from 806 tourists and analyzed through the PLS-SEM method, the results showed that higher levels of experience quality and emotional attachment to the destination significantly enhance tourists' environmental responsibility and their actual engagement in eco-friendly practices. The study underscored the importance of emotional and experiential dimensions in fostering sustainable tourist behavior.

2.2.2. Research Gap and Add Value

Although previous studies have examined the impact of digital and social media marketing on tourists' behavior and environmental awareness, few have focused on ecotourism in Algeria or similar developing countries. Most research has addressed either the direct effects of social media marketing or pro-environmental behavior, leaving the mediating role of environmental awareness underexplored.

This study adds value by examining how social media marketing influences tourists' intention to visit ecotourism destinations through environmental awareness, using empirical data from Chr  a National Park. It provides insights for both academics and tourism marketers on promoting eco-friendly travel while fostering environmentally responsible behavior among visitors.

3. Methodology

3.1. Research Design

This study employs a quantitative explanatory-causal research design to analyze the relationships among the dimensions of social media marketing, environmental awareness, and

tourists' intention to visit ecotourism destinations. The research develops a conceptual model that illustrates how the four dimensions of social media marketing: content quality, interactivity, credibility & trust, and electronic word-of-mouth influence environmental awareness, which comprises knowledge, concern, responsibility, and pro-environmental behavior, and, in turn, affect the intention to visit ecotourism sites through attitude, subjective norms, perceived behavioral control, and actual intention.

The empirical field study was conducted at Chr  a National Park, one of Algeria's most prominent ecotourism destinations, where data were gathered from visiting tourists to test the proposed causal model. This explanatory-causal design allows for examining both direct and indirect (mediated) effects using appropriate multivariate statistical techniques.

A descriptive and analytical approach was adopted to explore the structural relationships among the main study variables. Data were collected through a structured questionnaire administered to a random sample of visitors.

3.2. Population and sample

The study population consisted of tourists visiting the Chr  a National Park during the autumn season of 2025, particularly during the school fall holiday, as it is one of the most prominent eco-tourism destinations in Algeria, known for its rich biodiversity and high environmental significance. A simple random sampling method was employed to ensure adequate representation of the visitor population and to minimize selection bias. After data screening, 153 valid questionnaires were retained for analysis, which is considered sufficient to meet the statistical requirements for applying Structural Equation Modeling (SEM) using the SmartPLS software.

3.3. Data Collection Procedure

Data were collected through an electronic questionnaire specifically designed for this study and distributed via Facebook groups active in the field of domestic tourism in Algeria. This approach allowed for reaching a diverse range of respondents interested in eco-tourism and national travel. The data collection process was conducted over a period extending from October 10 to November 5, 2025. In total, 168 responses were received, of which 15 were excluded due to incomplete or inconsistent answers, resulting in 153 valid questionnaires retained for the final statistical analysis.

3.4. Measurement Scale

The questionnaire was developed based on validated measurement scales drawn from recent studies on social media marketing, environmental awareness, and behavioral intention in the tourism context. All constructs were treated as multidimensional. Social media marketing included four dimensions: content quality, interactivity, credibility & trust, and electronic word-of-mouth. Environmental awareness comprised knowledge, concern, responsibility, and pro-environmental behavior, while the intention to visit ecotourism destinations was measured through attitude, subjective norms, perceived behavioral control, and actual intention.

All items were measured using a five-point Likert scale ranging from "strongly disagree" to "strongly agree." The instrument was reviewed by academic experts in digital marketing and tourism to ensure clarity, validity, and reliability before its final distribution.

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3.5. Data Analysis Techniques

The data were analyzed using SmartPLS 4.1.1.1 through PLS-SEM. The process involved evaluating the measurement model (reliability and validity) and then the structural model (path coefficients, R^2 , f^2 , Q^2). Hypotheses were tested using t-values and p-values via bootstrapping.

3.6. Descriptive Statistics of the Sample

To provide a comprehensive overview of the respondents' demographic and behavioral characteristics, descriptive statistics were computed based on gender, age group, educational level, monthly income, and number of visits to the Chr  a National Park. The distribution of the sample according to these characteristics is presented in the following table:

Table (1): Demographic Profile of the Sample (N = 153)

Variable	Categories	Frequency (n)	Percentage (%)	Total
Gender	Male	87	56.9%	100%
	Female	66	43.1%	
Age Group	Less than 35 years	68	44.4%	100%
	35 to 50 years	57	37.3%	
	Over 50 years	28	18.3%	
educational level	Secondary	24	15.7%	100%
	Technical	33	21.6%	
	University	86	56.2%	
	Postgraduate	10	6.5%	
Number of Visits	Less than twice	52	34.0%	100%
	2 to 4 times	65	42.5%	
	More than 4 times	36	23.5%	
Monthly Income	Less than 60,000 DZD	46	30.1%	100%
	60,000 – 120,000 DZD	78	51.0%	
	More than 120,000 DZD	29	18.9%	

Source: Authors' own elaboration based on survey data.

As shown in the table above, the study sample consisted of 153 respondents, of whom males represented 56.9% and females 43.1%, indicating a relatively balanced gender distribution. In terms of age, the majority of participants (44.4%) were under 35 years old, reflecting the predominance of young tourists among visitors to Chr  a.

Regarding education, most respondents (56.2%) held a university degree, followed by those with technical education (21.6%), which suggests that ecotourism in Algeria tends to attract a well-educated audience.

Concerning visit frequency, 42.5% of tourists had visited Chr  a between two and four times, indicating a moderate level of repeat visitation. Finally, with respect to income, more than half of the participants (51.0%) reported earning between 60,000 and 120,000 DZD per month, showing that middle-income individuals constitute the largest segment of visitors.

These results indicate that the study sample provides a diverse and representative overview of visitors to Chr  a National Park, suitable for inferential statistical analysis.

4. Empirical Results

4.1. Measurement Model Evaluation

4.1.1. Indicator Reliability and Construct validity

The measurement model was evaluated for indicator reliability and construct validity. Outer loadings above 0.70 indicate acceptable indicator reliability (Hair et al., 2021). Construct reliability was assessed using Composite Reliability (CR) and Cronbach's Alpha, with values ≥ 0.70 considered satisfactory. Convergent validity was checked via Average Variance

Extracted (AVE), with values >0.50 deemed acceptable. The results for all constructs and dimensions are summarized in the table below:

Table (2): Results of the Measurement Model Assessment

variable		Item Indicators	Type of Measure	Item Loadings	Composite Reliability	Cronbach Alpha	AVE
Social Media Marketing	Content Quality	Smm-Cq 1	Reflective	0.813	0.874	0.832	0.635
		Smm-Cq 2		0.782			
		Smm-Cq 3		0.764			
		Smm-Cq 4		0.801			
	Interactivity	Smm-In 1	Reflective	0.778	0.861	0.819	0.609
		Smm-In 2		0.769			
		Smm-In 3		0.732			
		Smm-In 4		0.783			
	Credibility and Trust	Smm-Ct 1	Reflective	0.755	0.846	0.792	0.580
		Smm-Ct 2		0.739			
		Smm-Ct 3		0.721			
		Smm-Ct 4		0.766			
	Electronic Word of Mouth	Smm-Wm 1	Reflective	0.792	0.871	0.826	0.630
		Smm-Wm 2		0.806			
		Smm-Wm 3		0.751			
		Smm-Wm 4		0.787			
Environmental Awareness	Environmental Knowledge	Ea-Ek 1	Reflective	0.806	0.872	0.830	0.632
		Ea-Ek 2		0.785			
		Ea-Ek 3		0.759			
		Ea-Ek 4		0.803			
	Environmental Concern	Ea-Ec 1	Reflective	0.773	0.857	0.808	0.601
		Ea-Ec 2		0.751			
		Ea-Ec 3		0.733			
		Ea-Ec 4		0.784			
	Environmental Responsibility	Ea-Er 1	Reflective	0.786	0.865	0.822	0.616
		Ea-Er 2		0.793			
		Ea-Er 3		0.752			
		Ea-Er 4		0.781			
	Pro-environmental Behavior	Ea-Peb 1	Reflective	0.778	0.853	0.798	0.592
		Ea-Peb 2		0.765			
		Ea-Peb 3		0.729			
		Ea-Peb 4		0.777			
Intention to Visit Ecotourism Destinations	Attitude toward Ecotourism	Ive-Ate 1	Reflective	0.802	0.869	0.825	0.626
		Ive-Ate 2		0.784			
		Ive-Ate 3		0.758			
		Ive-Ate 4		0.793			
	Subjective Norms	Ive-Sn 1	Reflective	0.773	0.861	0.817	0.608
		Ive-Sn 2		0.758			
		Ive-Sn 3		0.734			
		Ive-Sn 4		0.785			
	Perceived Behavioral Control	Ive-Pbc 1	Reflective	0.781	0.854	0.804	0.595
		Ive-Pbc 2		0.762			
		Ive-Pbc 3		0.728			
		Ive-Pbc 4		0.774			
	Actual Intention to Visit	Ive-Aiv 1	Reflective	0.789	0.866	0.822	0.618
		Ive-Aiv 2		0.776			
		Ive-Aiv 3		0.738			
		Ive-Aiv 4		0.790			

Source: Outputs of statistical analysis using Smart PLS software.

The results indicate that all constructs satisfy the established criteria for reliability and validity. Specifically, Cronbach's Alpha and Composite Reliability (CR) values exceed the

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recommended threshold of 0.70, confirming a strong internal consistency among items. Moreover, the Average Variance Extracted (AVE) values for all constructs are higher than 0.50, demonstrating satisfactory convergent validity. Consequently, the measurement model can be deemed both reliable and valid for proceeding with the structural analysis.

4.1.2. Discriminant Validity

Discriminant validity was evaluated using the Fornell–Larcker criterion, which ensures that each construct is empirically distinct from the others when the square root of its Average Variance Extracted (AVE) is greater than its correlations with all other constructs.

Table (3): Fornell-Larcker Discriminant Validity

	Smm-Cq	Smm-In	Smm-Ct	Smm-Wm	Ea-Ek	Ea-Ec	Ea-Er	Ea-Peb	Ive-Ate	Ive-Sn	Ive-Pbc	Ive-Aiv
Smm-Cq	0.797											
Smm-In	0.512	0.781										
Smm-Ct	0.498	0.524	0.762									
Smm-Wm	0.473	0.486	0.497	0.794								
Ea-Ek	0.459	0.472	0.493	0.505	0.795							
Ea-Ec	0.487	0.496	0.478	0.482	0.517	0.777						
Ea-Er	0.465	0.489	0.502	0.471	0.498	0.541	0.785					
Ea-Peb	0.491	0.478	0.496	0.464	0.485	0.563	0.537	0.803				
Ive-Ate	0.477	0.469	0.486	0.491	0.522	0.549	0.512	0.529	0.791			
Ive-Sn	0.466	0.472	0.478	0.495	0.507	0.531	0.504	0.521	0.568	0.780		
Ive-Pbc	0.482	0.518	0.509	0.474	0.493	0.537	0.516	0.528	0.572	0.589	0.787	
Ive-Aiv	0.493	0.524	0.519	0.501	0.485	0.543	0.523	0.537	0.588	0.576	0.601	0.786

Source: Outputs of statistical analysis using Smart PLS software.

The results presented in the table demonstrate that the square root of the Average Variance Extracted (AVE) for each construct is greater than its correlations with other constructs. This indicates that all constructs are empirically distinct and confirms the establishment of discriminant validity according to the Fornell-Larcker criterion. Therefore, the measurement model adequately satisfies the requirement of discriminant validity.

4.2. Structural Model Evaluation

4.2.1. Path Coefficients

To examine the hypothesized relationships among the study variables, a path analysis was conducted. The table below presents the path coefficients (β), along with their corresponding t-values, p-values, and 95% confidence intervals, which indicate the significance and strength of the relationships within the structural model.

Table (4): Results of Path Analysis

Path Relationship	Path Coefficient (β)	t-value	p-value	Confidence Interval
Social Media Marketing → Environmental Awareness	0.418	5.093	0.000	[0.296; 0.497]
Environmental Awareness → Intention to Visit Ecotourism Destinations	0.341	4.428	0.000	[0.208; 0.474]
Social Media Marketing → Intention to Visit Ecotourism Destinations	0.251	3.312	0.000	[0.106; 0.358]

Source: Outputs of statistical analysis using Smart PLS software.

The results of the path analysis indicate statistically significant and positive effects of social media marketing and environmental awareness on the intention to visit ecotourism destinations. Social media marketing shows the strongest influence, followed by environmental awareness, while its direct impact on visit intention remains positive and significant. These findings highlight the importance of integrating social media strategies and environmental awareness initiatives in promoting sustainable tourism behavior.

4.2.2. The mediating effect of the Environmental Awareness

To examine whether Environmental Awareness mediates the relationship between Social Media Marketing and Intention to Visit Ecotourism Destinations, an indirect effect analysis was conducted using the bootstrapping method.

Table (5): Results of Path Analysis

Path Relationship	Path Coefficient (β)	t-value	p-value	Confidence Interval
Social Media Marketing → Environmental Awareness → Intention to Visit Ecotourism Destinations	0.141	3.532	0.000	[0.064; 0.236]

Source: Outputs of statistical analysis using Smart PLS software.

The results indicate that environmental awareness plays a significant mediating role in the relationship between social media marketing and the intention to visit ecotourism destinations. This suggests that social media marketing not only directly influences tourists' behavioral intentions but also indirectly enhances them by increasing their environmental awareness. Therefore, the mediation analysis confirms that social media marketing fosters eco-conscious attitudes, which in turn strengthen tourists' willingness to engage in sustainable travel experiences.

4.2.3. R² Coefficient of determination

The Coefficient of Determination (R²) indicates the proportion of variance in the dependent variable that can be explained by the independent variables in the model. It provides an assessment of the model's explanatory strength, where values above 0.75 indicate a substantial level of explanation, around 0.50 indicate a moderate level, and around 0.25 indicate a weak level (Hair et al., 2021). Additionally, the adjusted R² value provides a more accurate reflection of the model's explanatory power by considering the number of predictors included.

Table (6): R² and Adjusted R² Values

Endogenous Variable	R ²	Adjusted R ²	Effect Size
Environmental Awareness	0.403	0.399	Moderate
Intention to Visit Ecotourism Destinations	0.371	0.358	Moderate

Source: Outputs of statistical analysis using Smart PLS software.

The results in the table indicate that the model explains 40.3% of the variance in Environmental Awareness and 37.1% of the variance in Intention to Visit Ecotourism Destinations. According to (Hair et al., 2021), these R² values represent a moderate explanatory power of the model. The adjusted R² values (0.399 for Environmental Awareness and 0.358 for Intention to Visit Ecotourism Destinations) are slightly lower, reflecting a conservative adjustment for the number of predictors. These findings suggest that the independent variables in the model provide a reasonable level of predictive accuracy for the dependent constructs.

4.2.4. f² Effect Size

The Effect Size (f²) assesses the individual contribution of each exogenous variable to the explanatory power of the model by examining how the R² value changes when a specific predictor is excluded. This measure helps determine the relative importance of each independent construct in explaining the variance of the dependent variable. According to (Hair et al., 2021), f² values of 0.02, 0.15, and 0.35 indicate small, medium, and large effects, respectively.

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Table (7): Effect Size (f^2) for Structural Paths

Structural Path	f^2 Value	Effect Size
Social Media Marketing → Environmental Awareness	0.362	Large
Environmental Awareness → Intention to Visit Ecotourism Destinations	0.287	Medium
Social Media Marketing → Intention to Visit Ecotourism Destinations	0.163	Medium

Source: Outputs of statistical analysis using Smart PLS software.

The results presented in the table indicate that the effect size (f^2) for the path (Social Media Marketing → Environmental Awareness) is 0.362, which is classified as large, reflecting the strong influence of social media marketing on individuals' environmental awareness. Similarly, the path (Environmental Awareness → Intention to Visit Ecotourism Destinations) shows a medium effect size (0.287), confirming that greater environmental awareness moderately enhances the intention to visit ecotourism destinations. In contrast, the path (Social Media Marketing → Intention to Visit Ecotourism Destinations) records a medium effect size (0.163), suggesting that the influence of social media marketing on visiting intentions is more effective when mediated through environmental awareness rather than exerted directly.

4.2.4. Q^2 Predictive Relevance

Predictive relevance (Q^2) evaluates the model's predictive accuracy for the endogenous constructs. It is obtained through the blindfolding procedure, and according to (Cohen, 2013), a Q^2 value greater than zero indicates that the model possesses satisfactory predictive relevance for the corresponding construct.

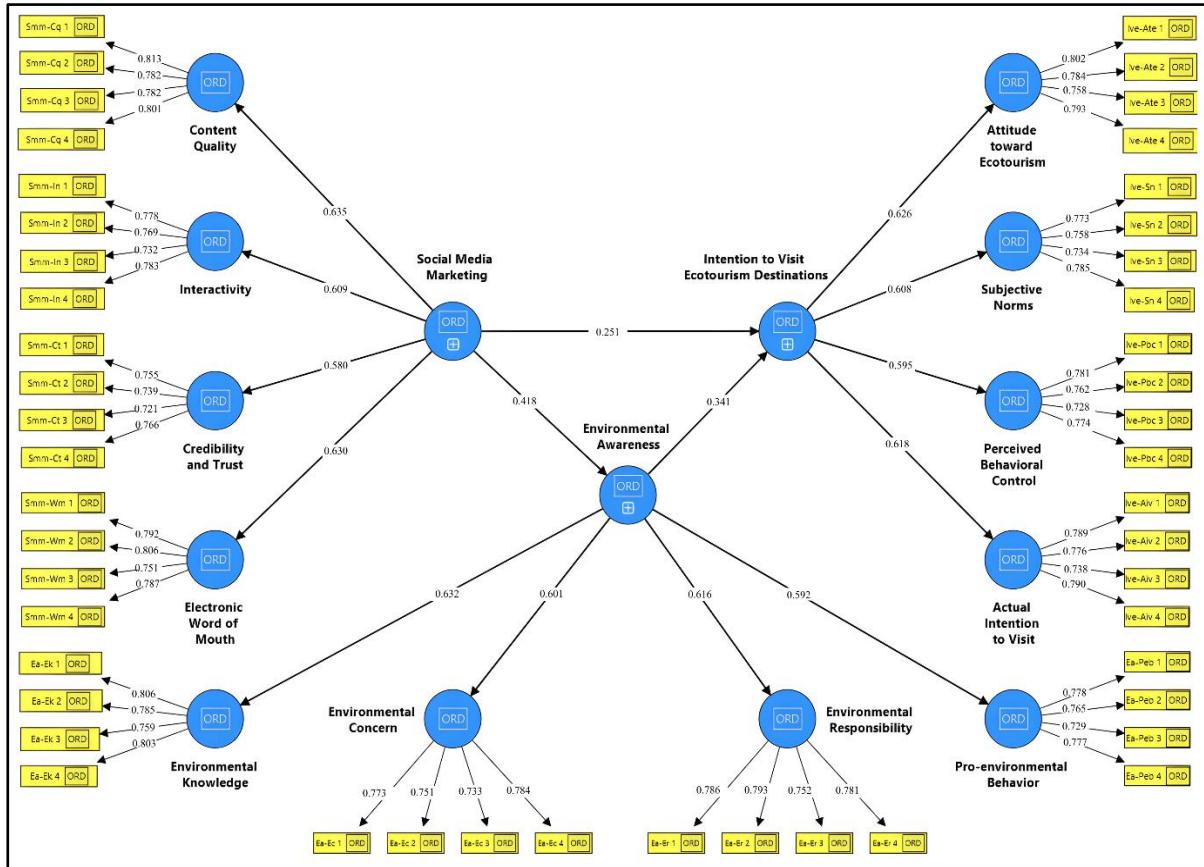
Table (8): Predictive Relevance (Q^2)

Endogenous Construct	Q^2 Value	Predictive Relevance
Environmental Awareness	0.254	Medium
Intention to Visit Ecotourism Destinations	0.401	High

Source: Outputs of statistical analysis using Smart PLS software.

The results in the table indicate that the Q^2 value for Environmental Awareness is 0.254, suggesting a medium level of predictive relevance, while the Q^2 value for Intention to Visit Ecotourism Destinations is 0.401, reflecting high predictive relevance. These findings confirm that the proposed model demonstrates strong predictive capability for the endogenous constructs, thereby reinforcing the reliability and robustness of the model within the context of this study.

Fig (1): Final Structural Model of the Study



Source: Outputs of statistical analysis using Smart PLS software.

4.2.5. Hypotheses Testing

The table below presents the results of hypothesis testing, including the path coefficients (β), t-values, p-values, and the corresponding statistical decisions. These results determine whether the proposed relationships between the study variables are supported or rejected based on statistical significance.

Table (9): Hypotheses Testing

Hypothesis	Path	Path Coefficient (β)	T-value	P-value	Decision
H₀₁	Social Media Marketing → Intention to Visit Ecotourism Destinations	0.251	3.312	0.000	Not Supported
H₀₂	Social Media Marketing → Environmental Awareness	0.418	5.093	0.000	Not Supported
H₀₃	Environmental Awareness → Intention to Visit Ecotourism Destinations	0.341	4.428	0.000	Not Supported
H₀₄	Social Media Marketing → Environmental Awareness → Intention to Visit Ecotourism Destinations	0.141	3.532	0.000	Not Supported

Source: Outputs of statistical analysis using Smart PLS software.

As shown in Table 9, all hypothesized relationships in the structural model are statistically significant. Specifically, the direct effect of social media marketing on the intention to visit ecotourism destinations is significant ($\beta = 0.251$, $t = 3.312$, $p = 0.000$), leading to the rejection of H₀₁. Similarly, H₀₂ is rejected, as social media marketing has a strong positive effect on environmental awareness ($\beta = 0.418$, $t = 5.093$, $p = 0.000$). The impact of environmental awareness on the intention to visit ecotourism destinations is also statistically supported ($\beta = 0.341$, $t = 4.428$, $p = 0.000$), resulting in the rejection of H₀₃.

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Finally, the indirect relationship through the mediating variable environmental awareness is significant ($\beta = 0.141$, $t = 3.532$, $p = 0.000$), confirming the mediating role of environmental awareness and leading to the rejection of H_04 .

Overall, these findings support the proposed conceptual model, confirming the existence of both direct and indirect effects, and emphasizing the critical role of social media marketing and environmental awareness in shaping tourists' intention to visit ecotourism destinations.

5. Discussion of Results

The analysis of the structural model confirms that social media marketing plays a crucial role in enhancing tourists' intention to visit ecotourism destinations, both directly and indirectly through the improvement of environmental awareness.

The results indicate that social media marketing significantly contributes to raising tourists' environmental awareness. Digital content characterized by high quality, relevance, and focus on nature and environmental features has effectively increased individuals' understanding of and interest in environmental preservation. Moreover, active interaction through comments, sharing, and participation in online discussions has strengthened tourists' engagement with environmental issues, thereby heightening their sense of responsibility toward protecting natural surroundings. In addition, the credibility and trustworthiness of environmental information shared on social media encouraged users to adopt more environmentally conscious behaviors, while the exchange of positive experiences and testimonials among users inspired others to consider visiting eco-friendly destinations.

The findings also demonstrate that environmental awareness has a significant influence on tourists' intention to visit ecotourism destinations. Individuals who possess solid environmental knowledge, show genuine concern for ecological preservation, and believe in acting responsibly toward nature are more likely to choose environmentally friendly destinations and engage in sustainable practices during their visits, such as avoiding littering, respecting biodiversity, and protecting natural resources.

Furthermore, the direct relationship between social media marketing and the intention to visit proved to be significant as well. Social media content that highlights the beauty and uniqueness of ecotourism sites and showcases real visitor experiences has helped shape positive attitudes toward sustainable tourism. Encouragement from peers and social communities on digital platforms also reinforces social norms that motivate responsible travel behavior. Additionally, many individuals reported feeling empowered to plan and carry out their visits more easily thanks to the practical information provided online about routes, eco-activities, and visitor guidelines.

The mediation analysis confirmed that environmental awareness partially mediates the relationship between social media marketing and the intention to visit ecotourism destinations. This means that the impact of digital marketing becomes stronger when it simultaneously enhances environmental awareness. Exposure to educational and environmental content, as well as to materials promoting responsible behavior such as maintaining cleanliness, conserving resources, and supporting sustainable tourism, increases tourists' understanding of eco-values and translates into concrete behavioral intentions, such as visiting destinations like Chr  a National Park.

Overall, these findings validate the proposed conceptual model and highlight the dual function of social media as both a promotional and educational tool. From a managerial perspective, tourism institutions and marketing professionals should focus on creating authentic, interactive, and educational digital content that not only promotes destinations but also fosters environmental consciousness. Such an approach can effectively enhance eco-awareness, encourage sustainable travel behavior, and ultimately strengthen tourists' intention to visit environmentally responsible destinations.

6. Conclusion

This study aimed to examine the role of social media marketing in enhancing tourists' intention to visit ecotourism destinations through the mediating effect of environmental awareness, using a field study conducted among visitors to Chréa National Park in Algeria. Based on data collected via a structured questionnaire and analyzed through Structural Equation Modeling (SEM) using SmartPLS, the empirical findings confirmed that social media marketing exerts both direct and indirect effects on tourists' behavioral intentions, with environmental awareness serving as a significant partial mediator.

The results revealed that the dimensions of social media marketing (content quality, interactivity, credibility and trust, and electronic word-of-mouth) play a vital role in increasing environmental awareness by promoting informative, engaging, and reliable digital content that encourages pro-environmental attitudes and behaviors. In turn, higher levels of environmental awareness, reflected in knowledge, concern, responsibility, and eco-friendly practices, strongly influence tourists' intention to visit ecotourism destinations. Moreover, the direct relationship between social media marketing and visit intention underscores the effectiveness of online communication strategies in shaping tourists' perceptions, motivations, and travel decisions.

The structural model demonstrated moderate explanatory power and strong predictive relevance, confirming the robustness and reliability of the proposed conceptual framework. The identification of a partial mediating effect highlights that social media marketing's influence on visiting intentions is both cognitive through raising awareness and behavioral through stimulating actual travel interest.

From a managerial perspective, these findings emphasize the importance for tourism institutions, destination managers, and marketers to integrate educational and promotional content within their digital strategies. Creating authentic, interactive, and environmentally oriented campaigns on social media can both increase tourists' environmental consciousness and stimulate sustainable travel behaviors toward destinations such as Chréa.

Future research could extend this study by applying the model to other ecotourism sites or different cultural contexts, or by including additional variables such as destination image, perceived value, or tourist satisfaction, to deepen the understanding of how digital marketing can effectively promote sustainable tourism behavior in developing countries.

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