



Analysis of Personality Traits of Ecotourism Opinion Leaders

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Abstract. As ecotourism increasingly emphasizes environmental protection, opinion leaders play a critical role in promoting sustainable travel practices. These leaders, leveraging social media and other platforms, significantly influence consumer travel decisions and behaviors. However, existing research primarily focuses on social media influence, with limited exploration of how personality traits shape their impact. This study explores the relationship between the personality traits of ecotourism opinion leaders and their own background. Using a questionnaire survey and factor analysis, four primary personality factors were identified: Practical Performer, Composed Stabilizer, Creative Thinker, and Warm Collaborator. Further cluster analysis revealed three distinct opinion leader profiles: Steady Performer, Thoughtful Stabilizer, and Empathetic Thinker. Cross-analysis indicated that education level and monthly income exhibited significant differences among these personality clusters. Specifically, higher education and income levels were associated with opinion leaders exhibiting creativity and empathy. This study offers a fresh perspective for understanding the behaviors and influence of opinion leaders in the ecotourism sector.

Keywords: Ecotourism, Opinion Leaders, Personality Traits.

1. INTRODUCTION

With the growing awareness of environmental protection and the promotion of sustainable development concepts, ecotourism has become an important trend in the global tourism industry (Yildirim & Tekeli, 2023). It not only promotes the conservation of natural resources but also provides sustainable economic opportunities for local communities (Kim et al., 2019). However, the high intangibility of tourism products complicates standardization, making consumer evaluation and decision-making riskier compared to physical goods (Libosada, 2009). Consequently, tourist behavior is influenced by a variety of factors, including personal values, social influences, and psychological variables (Moutinho, 1987).

The widespread adoption of social media has further enhanced the role of opinion leaders, who, through their expertise, social influence, and credibility, are able to shape others' attitudes and behaviors (Wu et al., 2021). As a critical group in influencing consumer behavior, opinion leaders play a pivotal role in promoting ecotourism practices. These individuals may include travel bloggers, environmental advocates, academics, tour guides, or environmentally conscious travelers (Jamroz et al., 1996). Through online platforms, they share ecotourism experiences and advocate for environmental stewardship, thereby affecting consumers' travel decisions (Xiang & Gretzel, 2010).

Numerous studies have confirmed the significant influence of opinion leaders within the leisure tourism sector (Jamroz et al., 1996). Their ability to filter information and leverage personal attributes enables them to shape consumer preferences and purchasing behaviors (Sarathy & Patro, 2013). Compared to traditional advertisements or sales representatives, consumers tend to place greater trust in informal communication channels such as opinion leaders (Stokburger-Sauer & Hoyer, 2009). This trust largely stems from the perceived objectivity and non-commercial motivations of opinion leaders (Richmond, 1977), as their recommendations are seen as more impartial and recipient-centered (Schiffman & Kanuk, 2004).

Although research on opinion leaders in the marketing field has matured and has proven that they can effectively influence consumers' attitudes, intentions and behaviors (Sarathy & Patro, 2013), studies specifically focusing on ecotourism opinion leaders remain relatively limited. Personality traits, as stable tendencies of individual behavior patterns, have a profound impact on individual cognition, emotion, and behavior (Budaev & Brown, 2011). Therefore, if the personality traits of ecotourism opinion leaders can be clarified, it will help deepen the understanding of their influence mechanism and provide practical guidance for ecotourism promotion strategies.

2. LITERATURE REVIEW

2.1. Ecotourism Opinion Leaders

Opinion leaders refer to individuals or groups who influence the attitudes and behaviors of others through the dissemination of information and the shaping of public opinion within social networks (Valente, 2006). In the context of ecotourism, the influence of opinion leaders is profound and widespread, particularly through social media platforms, where they significantly impact tourists' intentions to choose ecotourism destinations.

Leveraging their expertise, credibility, and high interactivity, these leaders effectively encourage followers to engage in sustainable travel behaviors (Saini et al., 2023; Yasin et al., 2023). Ecotourism opinion leaders often advocate for sustainable tourism practices by sharing personal experiences, offering advice, and providing practical tips such as reducing carbon footprints, utilizing public transportation, and selecting environmentally friendly accommodations (Yasin et al., 2023; Baltezarević et al., 2022). Beyond promoting specific behaviors, they also actively engage in environmental education, raising public awareness about the importance of preserving natural and cultural heritage (Rehman et al., 2023; Kilipiri et al., 2023).

To identify opinion leaders in the field of ecotourism, this study adopts the Self-Designating Method as the identification approach. Originally proposed by King and Summers (1970), this method consolidates concepts related to opinion leadership into seven assessment items, whose reliability and validity were empirically verified. Childers (1986) subsequently refined the scale to six items, presented using a five-point Likert format. The Childers scale has been extensively validated across multiple dimensions, including self-evaluation, information seeking, personal involvement, product familiarity, risk preference, and sociability, demonstrating strong reliability and validity (Chan & Misra, 1990).

2.2. Personality Traits of Ecotourism Opinion Leaders

Opinion leaders have the ability to influence others' attitudes, decisions, and behaviors through informal interpersonal communication (Katz & Lazarsfeld, 1955). Childers (1986) suggested that the personality traits of opinion leaders are closely associated with their level of topic involvement, information-seeking behavior, and social interaction style. Flynn, Goldsmith, and Eastman (1996) further emphasized that the personality traits of opinion leaders are domain-specific, meaning individuals may exert significant influence in certain fields (such as technology, fashion, or tourism) but not necessarily in others.

In the context of ecotourism, Nandhu et al. (2025) argued that ecotourism opinion leaders exhibit distinctive personality traits and behavioral characteristics, typically demonstrating a high degree of environmental concern and cultural sensitivity. These individuals actively participate in social networks, engage in frequent interpersonal communication, and possess the ability to assess and guide public opinion, thereby strengthening their influence within communities (Schenk & Rössler, 1997). Moreover, ecotourism opinion leaders tend to proactively seek travel information, utilize tourism-related media, and share experiences and recommendations more actively than ordinary tourists, making them pivotal in promoting niche or emerging ecotourism destinations (Oh, 1997).

Overall, the unique personality traits and behavioral patterns of ecotourism opinion leaders are indispensable for advancing sustainable tourism practices, positioning them as key drivers of ecotourism advocacy (Nandhu et al., 2024). Accordingly, this study adopts the personality trait scale developed by Saucier (1994) as the foundation for questionnaire design to measure the personality profiles of ecotourism opinion leaders.

3. EMPIRICAL ANALYSIS

3.1. Questionnaire Design

The questionnaire design of this study is divided into three sections: opinion leadership, personality traits, and demographic information. First, for the opinion leadership section, the items were primarily based on Childers (1986), with moderate revisions made to align with the objectives of this study. The question design focused on respondents' interpersonal interactions, influence over others' decisions, and self-perception in the context of ecotourism. A total of six questions were developed, including: "I often discuss activities or issues related to ecotourism with others," "When arranging travel itineraries, my relatives and friends often seek my recommendations for ecotourism options," "My opinions often influence whether others participate in environmentally focused travel itineraries," "If I recommend an ecotourism destination, my relatives and friends usually follow my advice," "Compared to others, I am more frequently consulted on issues related to nature conservation or environmentally friendly tourism," and "I consider myself one of the most valuable sources of ecotourism-related advice within my social circle." Second, for the personality traits section, this study adopted the Mini-Markers scale developed by Saucier (1994), simplifying and refining the items by removing redundancies and reverse-worded questions, resulting in a final set of 20 items. These questions measured traits such as emotional stability, organization, extroversion, creativity, and cooperativeness. Both the opinion leadership and personality traits sections utilized a five-point Likert scale, ranging from "strongly agree" (5) to "strongly disagree" (1), with higher scores indicating stronger agreement. Finally, the demographic section collected information on respondents' gender, age, marital status, education level, and monthly income to support subsequent analyses.

3.2. Sample Size and Composition

A total of 250 formal questionnaires were distributed in this study, resulting in 227 valid responses. To

achieve the study's objectives, respondents were first categorized based on their scores on the opinion leadership scale, with the average score of each respondent calculated. Individuals with an average score greater than or equal to 3 were classified as opinion leaders, while those with an average score below 3 were classified as non-opinion leaders. Following this classification, 118 respondents were identified as opinion leaders, and 109 as non-opinion leaders.

Regarding demographic characteristics, among the opinion leader group, 71 respondents (60.2%) were male and 47 (39.8%) were female. In terms of marital status, 78 respondents (66.1%) were married, and 40 (33.9%) were single. With respect to age, the largest group was 40–49 years old, comprising 41 respondents (34.7%), followed by the 30–39 age group with 39 respondents (33.1%). In terms of education level, the majority held a college degree or above, accounting for 70 respondents (59.3%). Among the non-opinion leader group, 48 respondents (44.0%) were male and 61 (56.0%) were female. Regarding marital status, 53 respondents (48.6%) were married, and 56 (51.4%) were single. For age distribution, the 30–39 age group represented the largest proportion, with 47 respondents (43.1%), followed by the 50–59 age group, with 24 respondents (22.0%). In terms of education level, those with a college degree or higher accounted for the majority, totaling 51 respondents (46.8%).

3.3. Factor Analysis

This study conducted an exploratory factor analysis on the personality traits scale of opinion leaders. The preliminary test results found that the factor loading of four items was lower than 0.4, so they were deleted and re-analyzed with 16 items. The KMO value was 0.772, and the Bartlett sphericity test reached a significant level ($p < 0.001$), indicating that the data were suitable for factor analysis. As shown in Table 1, four personality trait factors were finally extracted, named “Practical Performer”, “Composed Stabilizer”, “Creative Thinker” and “Warm Collaborator”. The Cronbach's α values of the four factors were 0.981, 0.969, 0.964 and 0.720, all greater than 0.7, indicating that each facet has good reliability. The explained variance of each factor was 32.001%, 28.191%, 18.550% and 8.604% respectively, and the cumulative explained variance was 87.346%, which had good data adaptability.

These personality dimensions also align with the Five-Factor Model (FFM), a widely accepted framework in personality psychology. Specifically, “Practical Performer” corresponds to conscientiousness, “Composed Stabilizer” reflects low neuroticism (emotional stability), “Creative Thinker” relates to openness to experience, and “Warm Collaborator” captures aspects of agreeableness. This theoretical mapping not only strengthens the construct validity of the extracted factors but also enhances interpretability, situating the traits of ecotourism opinion leaders within a broader psychological context. Incorporating FFM principles provides a solid foundation for understanding how stable individual differences contribute to social influence in the ecotourism domain.

Table 1: Factor analysis results.

Personality Trait Items	Practical Performer	Composed Stabilizer	Creative Thinker	Warm Collaborator
I am a person who values efficiency	0.973			
I am a very organized person	0.971			
I am a practical person	0.969			
I am a systematic person	0.949			
I am a person who is not easily upset		0.978		
I am not a sentimental person		0.971		
I am not easily angered		0.955		
I am not a person who is easily suspicious		0.918		
I am a smart person			0.969	
I am an imaginative person			0.968	
I am a creative person			0.918	
I am a very rational person			0.911	
I am a soft-hearted person				0.915
I am a compassionate person				0.685
I am a very cooperative person				0.670
I am an approachable person				0.630
Eigenvalue	5.390	4.748	3.124	1.449
Explained variation (%)	32.001	28.191	18.550	8.604
Cronbach's α	0.981	0.969	0.964	0.720

3.4. Cluster Analysis

This study utilized factor scores as the basis for cluster analysis, employing Ward's method to determine the optimal number of clusters, which was identified as three. Subsequently, the K-means method was applied for final clustering. Ward's method was employed initially because it minimizes the total within-cluster variance and

helps determine the optimal number of clusters. This was followed by the K-means algorithm to finalize group membership and enhance classification accuracy. The integration of these two methods balances statistical robustness with interpretability, a methodological strength particularly valuable when analyzing latent psychological structures such as personality profiles. The results, as shown in Table 2, categorize opinion leaders into three distinct types:

1. **Steady Performer:** Comprising 34 individuals, this group scored highest on the “Practical Performer” and “Composed Stabilizer” dimensions, characterized by high efficiency, strong organizational skills, and emotional stability.
2. **Thoughtful Stabilizer:** Comprising 38 individuals, this group ranked second on “Composed Stabilizer” and “Creative Thinker,” characterized by emotional steadiness combined with rational and creative thinking.
3. **Empathetic Thinker:** Comprising 46 individuals, this group scored highest on “Creative Thinker” and “Warm Collaborator,” exhibiting strong creativity, interpersonal affinity, and empathy.

The results of a one-way analysis of variance (ANOVA) revealed significant differences among the three clusters across all four personality trait dimensions ($p < 0.01$). Overall, through the integration of factor analysis and cluster analysis, this study effectively identified three typical combinations of personality traits among opinion leaders, providing a solid foundation for further exploration of their behavioral characteristics.

Table 2: One-way variance analysis of opinion leader cluster types in personality trait factors.

Facet and factor name	Steady Performer N=34	Thoughtful Stabilizer N=38	Empathetic Thinker N=46	F value	P value
Practical Performer	0.373	-0.438	0.086	6.784	0.002
Composed Stabilizer	0.478	0.228	-0.542	14.253	0.000
Creative Thinker	-1.114	0.351	0.533	60.500	0.000
Warm Collaborator	0.333	-1.036	0.610	64.096	0.000

5. Cross Analysis

This study further conducted cross-tabulation analysis to examine the differences in personal background variables among opinion leaders with different personality trait clusters. First, gender, marital status, and age did not show significant differences across the clusters, suggesting that the distribution of personality trait clusters among opinion leaders is not significantly influenced by these variables.

In contrast, educational level exhibited highly significant differences across the clusters. Observing the educational distribution within each cluster, the Steady Performer group had a higher proportion of individuals with a high school education. The Thoughtful Stabilizer and Empathetic Thinker groups were predominantly composed of individuals with a college education, and the Empathetic Thinker group also included a relatively higher proportion of respondents with postgraduate degrees. These findings indicate that educational attainment has a clear discriminative effect on personality trait clustering.

Table 3: Cross-analysis of opinion leaders' personality traits and personal background.

	Question Item	Steady Performer	Thoughtful Stabilizer	Empathetic Thinker	Pearson Chi-square (P value)
Gender	Male	16	28	29	3.677(0.159)
	Female	18	12	17	
Marriage	Married	25	27	26	3.137(0.208)
	Single	9	11	20	
Age	20 to 29	4	5	9	10.336(0.242)
	30 to 39	10	17	12	
	40 to 49	11	9	21	
	50 to 59	5	3	2	
	Over 60	4	4	2	
Education level	Elementary school	2	2	0	25.028(0.000)
	High school	18	8	8	
	College	12	28	30	
	Graduate School and above	2	0	8	
	Below NTe20,000	6	10	8	
Monthly income	NTe20,000~39,999	4	5	10	16.459(0.087)
	NTe40,000~59,999	15	12	11	
	NTe60,000~79,999	6	6	2	
	NTe80,000~99,999	2	3	6	
	NTe100,000 and above	1	2	9	

Moreover, monthly income also showed significant differences among the clusters. Specifically, the Empathetic Thinker group included a noticeably higher proportion of high-income earners (over NTe80,000), with a significant concentration of respondents earning over NTe100,000 per month. In contrast, the Steady Performer and Thoughtful Stabilizer groups were primarily concentrated in the NTe40,000–59,999 income range. These results suggest a significant association between income level and personality trait clusters, with

individuals in higher income brackets more likely to be classified within the Empathetic Thinker group.

In summary, educational background and income level play critical roles in differentiating opinion leaders across personality traits, particularly indicating that individuals with higher education and income levels are more likely to exhibit greater creativity and empathy.

4. FINDINGS

This study found that the influence of ecotourism opinion leaders stems not only from their social networks and professional expertise but also from their underlying personality traits. Based on the results of the cluster analysis, opinion leaders were categorized into three primary groups: Steady Performers, Thoughtful Stabilizers, and Empathetic Thinkers. Each group exhibits distinct characteristics, suggesting that differentiated marketing strategies should be developed accordingly. For example, when targeting the Steady Performer group, promotional efforts could emphasize the practicality and efficiency of ecotourism, appealing to individuals who prioritize functionality and organization. In contrast, when targeting the Empathetic Thinker group, it would be more effective to highlight the innovative aspects and emotional value of ecotourism, aiming to foster emotional resonance and investment in environmental protection.

Moreover, the study revealed that opinion leaders characterized by high levels of creativity and empathy are more actively involved in promoting sustainable tourism, particularly among individuals with higher education and income levels. Specifically, leaders with strong creative thinking abilities and collaboration skills are more effective in shaping consumer attitudes and behaviors, thereby contributing significantly to the broader adoption of ecotourism practices. While this study sheds light on the personality-driven segmentation of ecotourism opinion leaders, it is not without limitations. Future research could adopt a longitudinal design to explore how these personality clusters evolve over time. Cross-cultural studies are also encouraged to examine whether similar trait clusters appear in different geographic or cultural settings. In addition, integrating behavioral indicators—such as social media engagement metrics or actual travel behaviors—could provide a more comprehensive model of influence in sustainable tourism.

REFERENCES

- Baltezarević, R., Baltezarevic, B., & Baltezarevic, V. (2022). The role of travel influencers in sustainable tourism development. *International Review*, 3-4, 125-129. <https://doi.org/10.5937/intrev2204131b>
- Budaev, S. V., & Brown, C. (2011). Personality Traits and Behaviour. *Fish Cognition and Behavior*.
- Chan, K.K. & Misra, S. (1990). Characteristics of the Opinion Leader: A New Dimension. *Journal of Advertising*, 19(3), 53-60.
- Childers, T. L. (1986). Assessment of the psychometric properties of an opinion leadership scale. *Journal of Marketing Research*, 23(2), 184–188.
- Flynn, L. R., Goldsmith, R. E., & Eastman, J. K. (1996). Opinion leaders and opinion seekers: Two new measurement scales. *Journal of the Academy of Marketing Science*, 24(2), 137–147. <https://doi.org/10.1002/9781444342536.ch7>
- Jamroz, U., Backman, S. J., & Backman, K. F. (1996). Involvement and opinion leadership in tourism. *Annals of Tourism Research*, 23(4), 908-924. [https://doi.org/10.1016/0160-7383\(96\)00022-9](https://doi.org/10.1016/0160-7383(96)00022-9)
- Katz, E., & Lazarsfeld, P. F. (1955). *Personal influence: The part played by people in the flow of mass communications*. Free Press.
- Kilipiri, E., Papaioannou, E., & Kotzaivazoglou, I. (2023). Social Media and Influencer Marketing for Promoting Sustainable Tourism Destinations: The Instagram Case. *Sustainability*, 15(8), 6374. <https://doi.org/10.3390/su15086374>
- Kim, M., Xie, Y., & Cirella, G. T. (2019). Sustainable Transformative Economy: Community-Based Ecotourism. *Sustainability*, 11(18), 4977. <https://doi.org/10.3390/su11184977>
- King C.W., and Summers, J.O. (1970). Overlap of Opinion Leadership Across Consumer Product Categories. *Journal of Marketing Research*, 7, 43–50.
- Libosada, C. M. (2009). Business or leisure? Economic development and resource protection—Concepts and practices in sustainable ecotourism. *Ocean & Coastal Management*, 52(7), 390-394. <https://doi.org/10.1016/J.OCECOAMAN.2009.04.004>
- Moutinho, L. (1987). "Consumer Behaviour in Tourism", *European Journal of Marketing*, 21(10), 5-44. <https://doi.org/10.1108/EUM0000000004718>
- Nandhu, A., Jimenez Ruiz, A. E., Mane, R. B., & Nambiar, A. R. (2025). Interplay of Personality Traits in Segmenting Sustainable Tourists: A qualitative Study. In A. Jimenez Ruiz, V. Rudkouskaya, N. Bejarano, & S. Bhartiya (Eds.), *Promoting Sustainability in Psychosocial Travel Techniques*, 255-270. IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-3150-7.ch014>
- Oh, I. K. (1997). Hypothesis Tests on the Characteristics of Opinion Leaders: An Application to Travel. *Journal of Travel & Tourism Marketing*, 6(2), 53–68. https://doi.org/10.1300/J073v06n02_03
- Rehman, A. U., Jiang, A., Rehman, A., Paul, A., Din, S., & Sadiq, M. T. (2023). Identification and role of opinion leaders in information diffusion for online discussion network. *Journal of Ambient Intelligence and Humanized Computing*, 14, 15301-15313. <https://doi.org/10.1007/S12652-019-01623-5>
- Richmond, V.P. (1977). The relationship between opinion leadership and information acquisition. *Human Communication Research*, 4(1), 38-43. <https://doi.org/10.1111/j.1468-2958.1977.tb00594.x>
- Saini, H. K., Kumar, P., & Oberoi, S. S. (2023). Welcome to the destination! Social media influencers as cogent determinant of travel decision: A systematic literature review and conceptual framework. *Cogent Social Sciences*, 9(1), 1-27. <https://doi.org/10.1080/23311886.2023.2240055>
- Sarathy, P.S., & Patro, S.K. (2013). The Role of Opinion Leaders in High-Involvement Purchases: An Empirical Investigation. *South*

- Asian journal of management, 20(2), 127-145.
- Saucier, G. (1994). Mini-Markers: A Brief Version of Goldberg's Unipolar Big-Five Markers. *Journal of Personality Assessment*, 63(3), 506-516. https://doi.org/10.1207/s15327752jpa6303_8
- Schenk, M. & Rössler, P. (1997). The Rediscovery of Opinion Leaders. An Application of the Personality Strength Scale. *Communications*, 22(1), 5-30. <https://doi.org/10.1515/comm.1997.22.1.5>
- Schiffman, L.G. & Kanuk, L.L. (2004). Consumer behavior, 8th International edition. Prentice Hall.
- Stokburger-Sauer, N.E., & Hoyer, W.D. (2009). Consumer advisors revisited: What drives those with market mavenism and opinion leadership tendencies and why? *Journal of Consumer Behaviour*, 8(2-3), 100-115. <https://doi.org/10.1002/CB.276>
- Valente, T. W. (2006). Opinion leader interventions in social networks. *BMJ*, 333, 1082-1083. <https://doi.org/10.1136/BMJ.39042.435984.43>
- Wu, L., Li, J., Qi, J., Kong, D., & Li, X. (2021). The Role of Opinion Leaders in the Sustainable Development of Corporate-Led Consumer Advice Networks: Evidence from a Chinese Travel Content Community. *Sustainability*, 13(19), 11128. <https://doi.org/10.3390/su131911128>
- Xiang, Z., & Gretzel, U. (2010). Role of social media in online travel information search. *Tourism management*, 31(2), 179-188. <https://doi.org/10.1016/j.tourman.2009.02.016>
- Yasin, A., Raza, S. H., Pembecioglu, N., Zaman, U., Ogadimma, E. C., Khan, A. M., & Khan, S. W. (2023). Modeling the Impact of Social Media Influencers on Intention to Visit Ecotourism Destinations in the Global South. In D. Okocha, M. Yousaf, & M. Onobe (Eds.), *Handbook of Research on Deconstructing Culture and Communication in the Global South*, 339-359. IGI Global Scientific Publishing. <https://doi.org/10.4018/978-1-6684-8093-9.ch021>
- Yıldırım, İ. & Tekeli, E. K. (2023). The Role of Ecotourism in Sustainable Development. In V. Nadda, F. Gonzo, R. Batta, & A. Sharma (Eds.), *Inclusive Community Development Through Tourism and Hospitality Practices* (pp. 250-272). IGI Global Scientific Publishing. <https://doi.org/10.4018/978-1-6684-6796-1.ch011>