

## THE IMPACT OF SOCIAL MEDIA AND MOBILE APPS ON ECOTOURISM BEHAVIOR IN THE NEW NORMAL ERA: THE MEDIATING ROLE OF DESTINATION IMAGE

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### ABSTRACT

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The objectives of this study were: 1) To test and influence social media on ecotourism behavior; 2) To test and analyze the effect of mobile applications on ecotourism behavior; 3) To examine the effect of social media on ecotourism behavior with destination image as a mediating variable; and 4) To examine the effect of mobile applications on ecotourism behavior with destination image as a mediating variable. The sample in this study were some tourists at Tebing Breksi Ecotourism Village, Sleman Regency, Yogyakarta Special Region, totaling 286 respondents. The analysis method used in this research is Partial Least Square (PLS). This study proves that Social Media has a significant positive relationship to Ecotourism Behavior; Mobile Applications have a significant positive relationship to Ecotourism Behavior; Social Media has a significant positive relationship to Ecotourism Behavior through Destination Image; Mobile Applications have a significant positive relationship to Ecotourism Behavior through Destination Image.

*Keywords: Social Media; Mobile Apps; Destination Image; Ecotourism Behavior*

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### INTRODUCTION

In the new normal phase, there is a change in tourist preferences where tourists prioritize hygiene factors both in accommodation, tourist attractions, and amenities. The DIY government has made various efforts to restore the economy, especially in the tourism sector. Ecotourism is an alternative strategy to balance economic development, environmental conservation, and community welfare (Kim et al., 2019; Rahman et al., 2022). According to Fang (2018), ecotourism is usually seen as a kind of tourism aimed at relatively undisturbed natural areas and regional protection. Sustainable tourism development aims to improve the shortcomings of the tourism development model in the past, because tourism is highly tied and dependent on the resources of a tourism destination, both mass and alternative, which will damage the environment (Ei & Karamanis, 2017; Jeong et al., 2021). Well-managed ecotourism will encourage awareness of the effects of tourism on nature, culture, and the human environment (Choi et al., 2017; Dahal et al., 2020).

Some key aspects of ecotourism are that the number of visitors is limited or regulated so that it is in accordance with the carrying capacity of the environment and socio-culture of the community (vs mass tourism), environmentally friendly tourism patterns (conservation value), friendly tourism patterns of local culture and customs (educational and tourism value), directly helping the economy of local communities (economic value), the initial capital required for infrastructure is not large (value of community participation and economy), and community-based ecotourism (Sakata & Prideaux, 2013).

This ecotourism cannot be separated from tourists who care about the environment. A study conducted by Miller, Merrilees, and Coghlan (2015) identified four pro-environmental tourist behaviors, namely: conservation behavior, preservation behavior, environmental education and advocacy behavior, sustainable consumption (Bilynets & Knezevic Cvelbar, 2022). Travelers who care about the environment will tend to choose sustainable tourist destinations. With this pro-environment demand, a new market opportunity for "sustainable tourism" has emerged. Responsible, sustainable and universal tourism programs and strategies can also be aligned with global missions that aim to support the achievement of the Sustainable Development Goals (SDGs), which includes avoiding negative impacts on health and the environment, minimizing

waste generation, ensuring an eco-friendly lifestyle (Ramkissoon & Sowamber, 2021), and promoting sustainable tourism (Nekmahmud, 2020; Nekmahmud et al., 2021).

Yogyakarta Special Region Province (DIY) has a myriad of ecotourism destinations spread across several districts. Among them: Baros Mangroves in Bantul Regency, Breksi Cliffs in Sleman Regency, Mudal River ecotourism in Kulon Progo Regency and Nglanggeran Ancient Volcano in Gunung Kidul. However, tourism performance in the Special Region of Yogyakarta experienced a major decline in 2020. The number of tourists, both local and foreign, visiting DIY in 2020, was only 1,848,548.00 which accounted for less than in 2019, which was 6,549,381.00. In 2021, there was an increase in tourism performance in the Special Region of Yogyakarta in the number of tourists visiting, which was 4,294,725.00 and in 2022, as many as 6,474,115.00. However, in some elements such as the length of stay of tourists, the number of new attractions, the number of *pokdarwis* and tourist spending money in 2022 decreased from the previous year. In an effort to revive the tourism sector which had experienced the greatest loss due to the Covid-19 pandemic, the DIY Tourism Office created the Visiting Jogja application. The DIY Tourism Office explained that the Visiting Jogja application was initiated since the beginning of the Covid-19 pandemic as a step of adaptation, innovation and collaboration as well as to answer the needs of tourism services in the *new normal* era, especially in terms of collecting tourist data for *testing* need sand tracing. In addition, in developing the Visiting Jogja application, the Yogyakarta Special Region Tourism Office cooperates and is fully supported by the Yogyakarta Representative Office of Bank Indonesia and other tourism stakeholders. Various service features have also been developed, including a booking and payment system for tourist destination tickets, events and tour packages, a non-cash payment system through QRIS Bank BPD Yogyakarta Special Region, a capacity limitation system for tourist destinations and events, and a tourist health screening system integrated with the *Peduli Lindungi* system and the *Peduli Lindungi* QR code scanner system.

Until 2022, tourism businesses incorporated in the Visiting Jogja application are 255 tourist destinations, 65 restaurants and other culinary businesses, 110 hotels, and accommodation 84 tourist villages 9 tour packages and 19 tourist events. The Visiting Jogja application has been downloaded by 30,681 downloaders and until now the data on the number of tourist visits or reservations through Visiting Jogja is 3,868,405 tourists. The Visiting Jogja application is the only application that has an online ticket purchase feature and recording of tourist visits is sufficient. Thus the existence of this application is not only beneficial for tourists but also for stakeholders and other tourism industry players. Thus, tourism in Yogyakarta will be more vibrant and the economy will grow, which in turn will improve the welfare of the people (Isdarmanto et al., 2022).

The current popularity and recognition of mobile apps can be traced back to the widespread use of mobile phones, which have long helped organize the visitor experience (Chatzopoulos et al., 2017). As mobile apps are more difficult to use in ubiquitous usage environments due to time constraints, lighting conditions, bandwidth, and other factors, user adoption of mobile apps relies heavily on the adaptability of apps for specific usage contexts (Abbasi et al., 2021; Han et al., 2018; Palos-Sanchez et al., 2021). In addition, mobile app marketing has become a growing industry in the digital world that aims to better understand travelers and determine what ecotourism should be promoted. Mobile applications have developed into one of the important methods for tourists to find and filter information and an important channel for tourism to reach potential tourists (Cardoso et al., 2022; Gulbahar & Yildirim, 2015).

Ecotourism is also seen as a commodity that must be promoted through digital marketing strategies, so other marketing strategies are needed to increase economic elements, including marketing using social media (VanMeter et al., 2015; Wagner, 2017). In addition, ecotourism attracts visitors who want to experience the beauty of nature and preserve it for future generations. Tourists are well aware of the use of technology to obtain information about ecotourism (Bilgihan et al., 2016). Tseng (2019) and Simeone and Scarpato (2020) view social media as a factor that

increases awareness of sustainable consumption as companies promote sustainable tourism to connect customers using the internet and social networks (Tavitiyaman et al., 2021).

By increasing tourism advertising and promotion on social media that builds eco-based tourism, it can create a good and new destination image among tourists, both local and foreign tourists. Many ecotourism sites are far from technological infrastructure, so it is very important to improve the destination image (Chi, 2021). Destination image is defined by Echtner and Ritchie (1991) as the sum of beliefs, ideas, and impressions that tourists have about a destination. Destination image is an important component to grow and increase tourists' awareness of ecotourism (Khan et al., 2022).

Research on ecotourism behavior models has been studied by several previous researchers, such as Kuo et al. (2019) and Khan et al. (2022). However, it still needs to be reviewed considering that there are differences in the results of previous studies. The study conducted by Kuo et al. (2019) managed to find a positive and significant relationship between mobile applications and ecotourism behavior, while Khan et al. (2022) found no relationship between the two. The objectives of this study are: 1) To examine and influence of social media on ecotourism behavior; 2) To test and analyze the influence of mobile applications on ecotourism behavior; 3) To examine the effect of social media on ecotourism behavior with destination image as a mediating variable; and 4) To examine the effect of mobile applications on ecotourism behavior with destination image as a mediating variable.

## **RESEARCH METHOD**

### **Sample**

The sample in this study were some tourists at the Breksi Cliff Ecotourism Site, Sleman Regency, Yogyakarta Special Region totaling 286 respondents. Sampling was done using non probability sampling with purposive sampling method. Non probability sampling is a sampling technique that is not randomly selected. Elements of the population that are selected as samples can be due to coincidence or due to other factors that have previously been planned. This technique was chosen because the researcher wanted to require respondent criteria, namely tourists who have visited the Tebing Breksi ecotourism destination in the Special Region of Yogyakarta aged at least 17 years old actively using social media and having the Visiting Jogja application.

### **Data Collection Procedure**

The data collection technique used in this study is expected to be able to provide accurate and more specific data, while the technique used is a questionnaire. According to Sekaran and Bougie (2016) a questionnaire is formulating a set of written questions to respondents to get answers. Researchers provided a questionnaire containing several questions and statements regarding the characteristics of respondents, as well as an assessment of social media, mobile applications, destination image and ecotourism behavior. The data in this study were obtained by providing a list of questions or questionnaires to respondents online, using google forms.

### **Quantitative Analysis**

The analysis method used in this research is Partial Least Square (PLS). According to Ghazali and Latan (2014), PLS is one of the Structural Equation Modeling (SEM) techniques that is able to analyze latent variables, indicator variables and measurement errors directly. PLS can be used with a small sample size (30 data) and can be applied to all data scales. PLS is an alternative that shifts from a covariance-based SEM approach to a variance-based one. Covariance-based SEM generally tests causality or theory while PLS is more predictive model. This means that SEM in the use of structural equation models to test the theory while PLS is more towards theory development for prediction purposes.

## RESULT AND DISCUSSION

### Outer Loading

**Table 1** Descriptive Statistics Table of Manufacturing Companies from 2007 to 2016

Variable	Min	Max	Rata-rata	Standar Deviasi
Company Asset Structure	0.0100	0.8533	0.3542	0.2002
Company Size	3.9493	7.9891	6.0343	0.6993
Company Growth	-0.3611	1.8533	0.1280	0.2588
Company Profitability	-0.6618	0.7530	0.0558	0.1390
Structure Modal	0.07744	3.4707	0.5905	0.4512

Source: Secondary Data, ICMD 2007-2016 Processed

The validity test is carried out by looking at the outer loading. An indicator is declared valid if it has a loading factor above 0.7. SmartPLS output for loading factors provides the following results.

**Table 2** SmartPLS output for loading factors provides

	Social Media	Mobile App	Destination Image	Ekowsisata behavior
<b>X1.1</b>	0,914			
<b>X1.2</b>	0.903			
<b>X1.3</b>	0,900			
<b>X1.4</b>	0,863			
<b>X1.5</b>	0,901			
<b>X1.6</b>	0,881			
<b>X1.7</b>	0,882			
<b>X2.1</b>		0,909		
<b>X2.2</b>		0,892		
<b>X2.3</b>		0,882		
<b>X2.4</b>		0,893		
<b>X2.5</b>		0,894		
<b>X2.6</b>		0,904		
<b>Y1.1</b>				0,879
<b>Y1.2</b>				0,882
<b>Y1.3</b>				0,893
<b>Y1.4</b>				0,880
<b>Y1.5</b>				0,888
<b>Y1.6</b>				0,896
<b>Y1.7</b>				0,913
<b>Z1.1</b>			0,909	
<b>Z1.2</b>			0,911	
<b>Z1.3</b>			0,922	
<b>Z1.4</b>			0,908	

## Discriminant Validity

### 1. Cross Loading

Based on the results of the cross loading value between indicators in the table, it can be concluded that each indicator in a construct has a difference with indicators in other constructs which is indicated by a higher loading score in its own construct, so it can be said that the instruments used in this study have met the criteria for discriminant validity.

**Table 3** Cross Loading Value

	<b>Social Media</b>	<b>Mobile App</b>	<b>Destination Image</b>	<b>Ecotourism Behavior</b>
<b>X1.1</b>	0.914	0.882	0.878	0.858
<b>X1.2</b>	0.903	0.867	0.869	0.851
<b>X1.3</b>	0.900	0.875	0.854	0.859
<b>X1.4</b>	0.863	0.837	0.831	0.817
<b>X1.5</b>	0.901	0.874	0.853	0.853
<b>X1.6</b>	0.881	0.848	0.835	0.818
<b>X1.7</b>	0.882	0.841	0.843	0.814
<b>X2.1</b>	0.867	0.909	0.851	0.842
<b>X2.2</b>	0.845	0.892	0.832	0.825
<b>X2.3</b>	0.861	0.882	0.836	0.818
<b>X2.4</b>	0.870	0.893	0.859	0.819
<b>X2.5</b>	0.870	0.894	0.859	0.841
<b>X2.6</b>	0.874	0.904	0.858	0.846
<b>Y1.1</b>	0.814	0.812	0.794	0.879
<b>Y1.2</b>	0.840	0.820	0.824	0.882
<b>Y1.3</b>	0.844	0.829	0.828	0.893
<b>Y1.4</b>	0.833	0.819	0.832	0.880
<b>Y1.5</b>	0.824	0.822	0.826	0.888
<b>Y1.6</b>	0.840	0.837	0.837	0.896
<b>Y1.7</b>	0.862	0.848	0.854	0.913

### Average Variance Extracted (AVE)

Another method to see the validity of a data is by looking at the square root value of average variance extracted (AVE). The recommended value is 0.5. The following is the AVE value in this study:

**Table 4** The Ave Value

	<b>Average Variance Extracted (AVE)</b>
<b>Mobile App</b>	0.803
<b>Destination Image</b>	0.833
<b>Social Media</b>	0.796
<b>Ecotourism Behavior</b>	0.793

The table above provides an AVE value above 0.5 for all constructs contained in the research model, which means that it meets the requirements.

## 2. Reliability Test

### a. Composite Reliability

**Table 5** Composite Reliability

	<b>Composite Reliability</b>
<b>Social Media</b>	0,965
<b>Mobile App</b>	0,961
<b>Destination Imagery</b>	0,952
<b>Ecotourism Behavior</b>	0,964

The table above provides an AVE value above 0.5 for all constructs contained in the research model, which means that it meets the requirements.

### b. Cronbach alpha

The reliability test can also be strengthened with Cronbach's alpha, where the output in this study provides the following results:

**Table 6** Cronbach's *alpha*

	<b>Cronbach's Alpha</b>
<b>Social Media</b>	0,957
<b>Mobile App</b>	0,951
<b>Destination Imagery</b>	0,933
<b>Ecotourism Behavior</b>	0,956

The recommended value of Cronbach's alpha is above 0.7 so it can be seen from the data above that the research data is in accordance with the Cronbach's Alpha value which is more than 0.7.

## Inner Model

### 1. R-square

The R<sup>2</sup> result of > 0.67 is in the good category, 0.33 - 0.67 is in the medium category, the result of 0.19 - 0.33 is in the weak category.

**Table 7** R-Square

	<b>R Square</b>	<b>R Square Adjusted</b>
<b>Destination Imagery</b>	0.922	0.922
<b>Ecotourism Behavior</b>	0.898	0.897

From the data above, it can be seen that the R-Square value shows a value of 0.922 which means substantial, and for the ecotourism behavior variable it gets a value of 0.897 which means it is in the good category.

## 2. Q-Squares

**Table 8** Q-Squares

	<b>Q<sup>2</sup>predict</b>
<b>Destination Image</b>	0,921
<b>Ekowsisata behavior</b>	0,888

Based on the test results above, it is found that all Q Square results > 0. Thus it can be concluded that the model in this study has a relevant predictive value.

### Hypothesis Test

For hypothesis testing using smartPLS by looking at the estimate table for path coefficients. Testing in this study was carried out with a bootstrapping procedure.

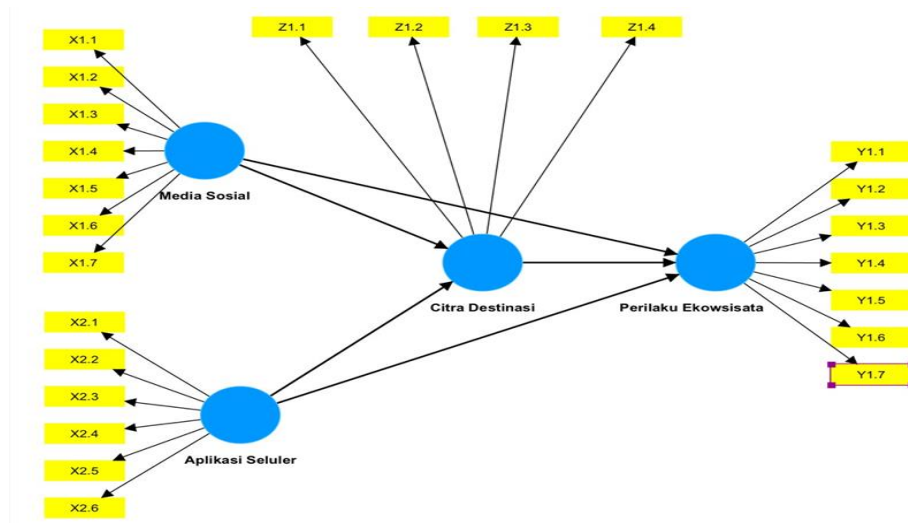
**Table 9** Hypothesis Test

	<b>Original Sample (O)</b>	<b>Sample Mean (M)</b>	<b>Standard Deviation (STDEV)</b>	<b>T Statistics ( O/STDEV )</b>	<b>P Values</b>
<b>Social Media -&gt; Ekowsisata Behavior</b>	0,456	0,456	0,131	3,474	0,001
<b>Ekowsisata Mobile App -&gt; Behavior</b>	0,195	0,204	0,092	2,124	0,034
<b>Social Media -&gt; Destination Image -&gt; Ekowsisata Behavior</b>	0,181	0,178	0,086	2,109	0,035
<b>Mobile Application -&gt; Destination Image-&gt; Ekowsisata Behavior</b>	0,118	0,113	0,053	2,214	0,027

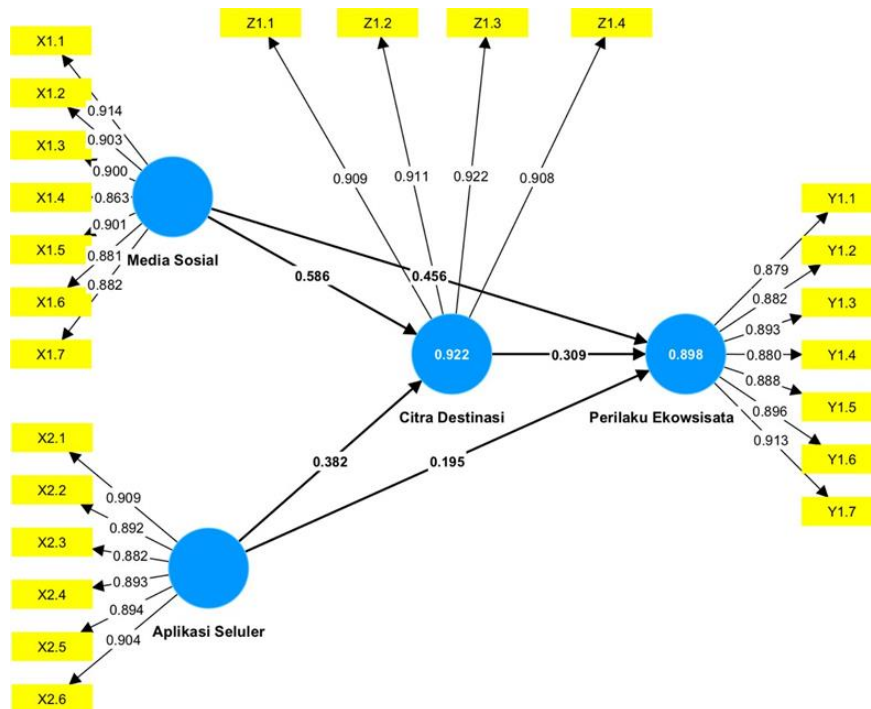
Based on the data above, the resulting P values show results below 0.05 which can be explained as follows:

1. Social Media has an effect on Ecotourism Behavior has a P value of 0.001 where this value is significant because it is smaller than 0.05, so it can be said that there is a significant relationship between Social Media and Ecotourism Behavior. The value of 0.456 shows a positive value so that it can be said that Social Media has a significant positive relationship. Then the first hypothesis is accepted.
2. Mobile Applications have an effect on Ecotourism Behavior has a P value of 0.034 where this value is significant because it is smaller than 0.05, so it can be said that there is a significant relationship between Mobile Applications and Ecotourism Behavior. The value of 0.195 shows a positive value so it can be said that the Mobile Application has a significant positive relationship. Then the second hypothesis is accepted. Media Social Media affects Ecotourism Behavior through Destination Image has a P value of 0.035 where this value is significant because it is smaller than 0.05, so it can be said that there is a significant relationship between Social Media and Ecotourism Behavior through Destination Image. The value of 0.181 shows a positive value so it can be said that Social Media has a significant positive relationship through Destination Image. Then the third hypothesis is accepted.
3. Mobile Applications affect Ecotourism Behavior through Destination Image has a P value of 0.027 where this value is significant because it is smaller than 0.05, so it can be said that there is a significant relationship between Mobile Applications affect Ecotourism Behavior through Destination Image. The value of 0.118 shows a positive value so it can be said that the Mobile Application has a significant positive relationship through Destination Image. Then the fourth hypothesis is accepted.

**A. Model**

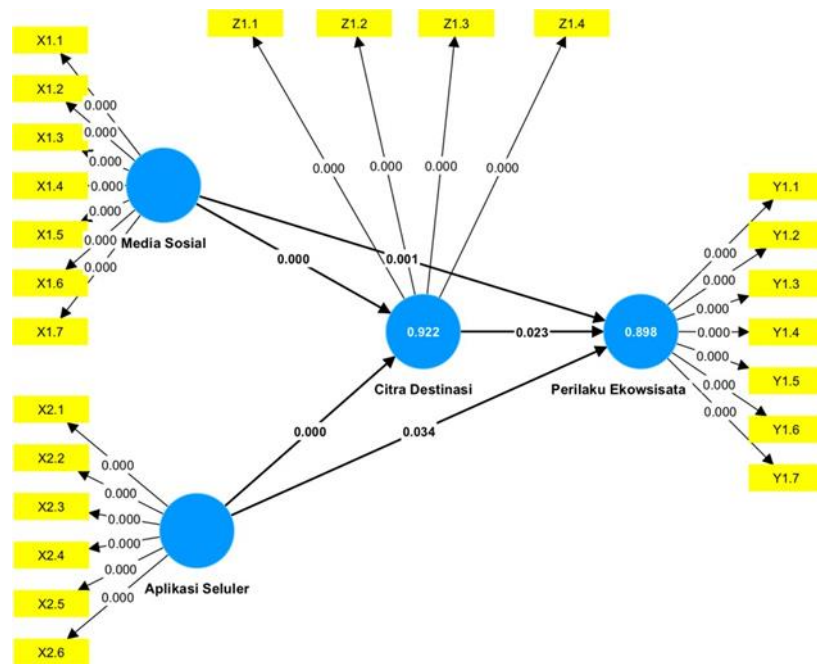


**B. SEM PLS**





### C. Boot strap



### CONCLUSION

Influence of social media and Mobile Apps: This research confirms that both social media and mobile apps have a significant positive relationship to ecotourism behavior. This means that the use of social media and mobile applications can positively affect the tendency of tourists to engage in ecotourism activities; The Role of Destination Image as a Mediator: The results show that destination image plays a mediator role in the relationship between social media, mobile applications, and ecotourism behavior. This means that positive perceptions of destinations can amplify the influence of social media and mobile apps on ecotourism behaviour; Confirmation of Results Through Analysis Methods: The analysis method used, namely Partial Least Square (PLS), is used to test the relationship between these variables. Thus, the study's findings are supported by statistical analyses that reinforce the validity of the results; Research Location and Sample: This research was conducted in Tebing Breksi Ecotourism Village, Sleman Regency, Yogyakarta Special Region, involving 286 respondents as a sample. The location and number of respondents provide specific context for the study's findings; Practical Implications: The results provide a deeper understanding of how social media and mobile apps can influence ecotourism behaviour, as well as the important role destination imagery plays in this process. The implications can be used by relevant parties, such as stakeholders in the tourism industry and policy makers, to enhance ecotourism promotion and build a positive image of the destination.

Thus, the conclusion of the study is that social media and mobile apps have a positive influence on ecotourism behavior, and destination image serves as a significant mediating factor in the relationship.

### REFERENCES

- Abbasi, G. A., Kumaravelu, J., Goh, Y.-N., & Dara Singh, K. S. (2021). Understanding the intention to revisit a destination by expanding the theory of planned behaviour (TPB). *Spanish Journal of Marketing - ESIC*, 25(2), 282–311. <https://doi.org/10.1108/SJME-12-2019-0109> [Google Scholar](#)
- Bilgihan, A., Kandampully, J., & Zhang, T. (Christina). (2016). Towards a unified customer experience in online shopping environments. *International Journal of Quality and Service Sciences*, 8(1), 102–119. <https://doi.org/10.1108/IJQSS-07-2015-0054> [Google Scholar](#)

- Bilynets, I., & Knezevic Cvelbar, L. (2022). Tourist pro-environmental behaviour: The role of environmental image of destination and daily behaviour. *Annals of Tourism Research Empirical Insights*, 3(2), 100070. <https://doi.org/10.1016/j.annale.2022.100070> [Google Scholar](#)
- Cardoso, A. F. S., Sousa, B. B., & da Cunha, A. C. G. (2022). Mobile applications in urban ecotourism: promoting digitization and competitive differentiation. In *Integrated Business Models in the Digital Age: Principles and Practices of Technology Empowered Strategies* (pp. 349–369). Springer. [Google Scholar](#)
- Chatzopoulos, D., Bermejo, C., Huang, Z., & Hui, P. (2017). Mobile Augmented Reality Survey: From Where We Are to Where We Go. *IEEE Access*, 5, 6917–6950. <https://doi.org/10.1109/ACCESS.2017.2698164> [Google Scholar](#)
- Chi, N. T. K. (2021). Understanding the effects of eco-label, eco-brand, and social media on green consumption intention in ecotourism destinations. *Journal of Cleaner Production*, 321, 128995. <https://doi.org/10.1016/j.jclepro.2021.128995> [Google Scholar](#)
- Choi, Y., Doh, M., Park, S., & Chon, J. (2017). Transformation Planning of Ecotourism Systems to Invigorate Responsible Tourism. *Sustainability*, 9(12), 2248. <https://doi.org/10.3390/su9122248> [Google Scholar](#)
- Dahal, B., K C, A., & Sapkota, R. P. (2020). Environmental Impacts of Community-Based Homestay Ecotourism in Nepal. *The Gaze Journal of Tourism and Hospitality*, 11(1), 60–80–81. [Google Scholar](#)
- Echtner, C. M., & Ritchie, J. R. B. (1991). The meaning and measurement of destination image. *Journal of Tourism Studies*, 2(2), 2–12. [Google Scholar](#)
- Ei, T., & Karamanis, K. (2017). The Evolution of Alternative forms of Tourism: a Theoretical Background. *Business & Entrepreneurship Journal*, 6(1), 1–4. [Google Scholar](#)
- Fang, W.-T., Lien, C.-Y., Huang, Y.-W., Han, G., Shyu, G.-S., Chou, J.-Y., & Ng, E. (2018). Environmental Literacy on Ecotourism: A Study on Student Knowledge, Attitude, and Behavioral Intentions in China and Taiwan. *Sustainability*, 10(6), 1886. <https://doi.org/10.3390/su10061886> [Google Scholar](#)
- Ghozali, I. (2014). *Structural Equation Modelling (SEM): Metode Alternatif dengan Partial Least Square (PLS)*. Universitas Diponegoro. [Google Scholar](#)
- Gulbahar, M. O., & Yildirim, F. (2015). Marketing Efforts Related to Social Media Channels and Mobile Application Usage in Tourism: Case Study in Istanbul. *Procedia - Social and Behavioral Sciences*, 195, 453–462. <https://doi.org/10.1016/j.sbspro.2015.06.489> [Google Scholar](#)
- Han, D.-I., tom Dieck, M. C., & Jung, T. (2018). User experience model for augmented reality applications in urban heritage tourism. *Journal of Heritage Tourism*, 13(1), 46–61. <https://doi.org/10.1080/1743873X.2016.1251931> [Google Scholar](#)
- Isdarmanto, I., Makiya, K. R., & Dewi, I. C. (2022). Climate Change Implications on Strategic Tourism Development of Yogyakarta during the Pandemic Covid-19. *Journal of Research on Business and Tourism*, 2(2), 109. <https://doi.org/10.37535/104002220223> [Google Scholar](#)
- Jeong, E., Lee, T., Brown, A. D., Choi, S., & Son, M. (2021). Does a National Park Enhance the Environment-Friendliness of Tourists as an Ecotourism Destination? *International Journal of Environmental Research and Public Health*, 18(16), 8321. <https://doi.org/10.3390/ijerph18168321> [Google Scholar](#)
- Khan, M. M., Siddique, M., Yasir, M., Qureshi, M. I., Khan, N., & Safdar, M. Z. (2022). The Significance of Digital Marketing in Shaping Ecotourism Behaviour through Destination Image. *Sustainability*, 14(12), 7395. <https://doi.org/10.3390/su14127395> [Google Scholar](#)
- Kim, M., Xie, Y., & Cirella, G. T. (2019). Sustainable Transformative Economy: Community-Based Ecotourism. *Sustainability*, 11(18), 4977. <https://doi.org/10.3390/su11184977> [Google Scholar](#)
- Kuo, T.-S., Huang, K.-C., Quyet Nguyen, T., & Hung Nguyen, P. (2019). Adoption of mobile applications for identifying tourism destinations by travellers: An integrative approach.

- Journal of Business Economics and Management*, 20(5), 860–877. <https://doi.org/10.3846/jbem.2019.10448> [Google Scholar](#)
- Kuo, T.-T., Zavaleta Rojas, H., & Ohno-Machado, L. (2019). Comparison of blockchain platforms: a systematic review and healthcare examples. *Journal of the American Medical Informatics Association*, 26(5), 462–478. <https://doi.org/10.1093/jamia/ocy185> [Google Scholar](#)
- Miller, D., Merrilees, B., & Coghlan, A. (2015). Sustainable urban tourism: understanding and developing visitor pro-environmental behaviours. *Journal of Sustainable Tourism*, 23(1), 26–46. <https://doi.org/10.1080/09669582.2014.912219> [Google Scholar](#)
- Nekmahmud, M. (2020). Environmental marketing: Tourists' purchase behaviour response on green products. In *Tourism Marketing in Bangladesh* (pp. 273–295). Routledge. [Google Scholar](#)
- Nekmahmud, M., Daragmeh, A., Oshora, B., & Mohammed, H. J. (2021). Market design for sustainable tourism products and services. *Tourism Products and Services in Bangladesh: Concept Analysis and Development Suggestions*, 397–417. [Google Scholar](#)
- Palos-Sanchez, P., Saura, J. R., Velicia-Martin, F., & Cepeda-Carrion, G. (2021). A business model adoption based on tourism innovation: Applying a gratification theory to mobile applications. *European Research on Management and Business Economics*, 27(2), 100149. <https://doi.org/10.1016/j.jedeen.2021.100149> [Google Scholar](#)
- Rahman, M. K., Masud, M. M., Akhtar, R., & Hossain, M. M. (2022). Impact of community participation on sustainable development of marine protected areas: Assessment of ecotourism development. *International Journal of Tourism Research*, 24(1), 33–43. <https://doi.org/10.1002/jtr.2480> [Google Scholar](#)
- Ramkissoon, H., & Sowamber, V. (2021). Local community support in tourism in Mauritius—the case of Ray of Light by LUX. In *Routledge handbook of tourism in Africa*. Routledge. [Google Scholar](#)
- Sakata, H., & Prideaux, B. (2013). An alternative approach to community-based ecotourism: a bottom-up locally initiated non-monetised project in Papua New Guinea. *Journal of Sustainable Tourism*, 21(6), 880–899. <https://doi.org/10.1080/09669582.2012.756493> [Google Scholar](#)
- Sekaran, U., & Bougie, R. (2016). *Research Methods for Business: A Skill Building Approach* (Seventh Edition). Wiley & Sons. [Google Scholar](#)
- Simeone, M., & Scarpato, D. (2020). Sustainable consumption: How does social media affect food choices? *Journal of Cleaner Production*, 277, 124036. <https://doi.org/10.1016/j.jclepro.2020.124036> [Google Scholar](#)
- Tavitiyaman, P., Qu, H., Tsang, W. L., & Lam, C. R. (2021). The influence of smart tourism applications on perceived destination image and behavioral intention: The moderating role of information search behavior. *Journal of Hospitality and Tourism Management*, 46, 476–487. <https://doi.org/10.1016/j.jhtm.2021.02.003> [Google Scholar](#)
- Tseng, M.-L., Lin, C., Remen Lin, C.-W., Wu, K.-J., & Sriphon, T. (2019). Ecotourism development in Thailand: Community participation leads to the value of attractions using linguistic preferences. *Journal of Cleaner Production*, 231, 1319–1329. <https://doi.org/10.1016/j.jclepro.2019.05.305> [Google Scholar](#)
- VanMeter, R. A., Grisaffe, D. B., & Chonko, L. B. (2015). Of “Likes” and “Pins”: The Effects of Consumers' Attachment to Social Media. *Journal of Interactive Marketing*, 32, 70–88. <https://doi.org/10.1016/j.intmar.2015.09.001> [Google Scholar](#)
- Wagner, K. D. (2017). *Conservation in focus: Capturing the payments for ecosystem service (pes) scheme through ecotourism activities in laos*. [Google Scholar](#)