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The Influence Of Destination Image, Smart Tourism Technology, Environmental Concern, And Destination Innovation On Experience Quality, Tourist Satisfaction, And Tourist Loyalty In Wonosobo

Muchammad Syafiq Murtadho[1], Sarwoto[2]
[1]Fakultas Ekonomi dan Bisnis Universitas Sebelas Maret, Indonesia
[2]Fakultas Ekonomi dan Bisnis Universitas Sebelas Maret, Indonesia
Email: sarwoto@staff.uns.ac.id

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Abstract

The purpose of this study is to measure the relationship between Destination Image, Smart Tourism Technology, Environmental Concern, Destination Innovation, Experience Quality, Tourist Satisfaction, and Tourist Loyalty. A quantitative approach was applied by collecting data from local tourists visiting tourist destinations in Wonosobo Regency. Data collection was conducted online by sending a questionnaire link to respondents. Structural Equation Modeling (SEM) was used for analysis in this study. The results showed that Destination Image, Smart Tourism Technology, Environmental Concern, Destination Innovation, Experience Quality, and Tourist Satisfaction have a significant impact on Tourist Loyalty to revisit tourist destinations in Wonosobo Regency. This study is expected to provide guidance to destination marketing managers to make their destinations sustainable by fostering visitor loyalty. To achieve this goal, The destination is suggested to leverage Destination Image, Smart Tourism Technology, environmentally friendly destinations, and innovation to enhance the quality of experiences and customer satisfaction, encouraging tourists to return.

***Keywords**: Destination Image, Smart Tourism Technology, Environmental Awareness, Destination Innovation, Experience Quality, Tourist Satisfaction, and Tourist Loyalty.*

INTRODUCTION

The tourism industry is one of the strategic sectors in the country's development and supports the economic growth of the country and regions. The sustainability of the tourism sector can be important for developing countries, as tourism can be a major source of income and economic development (Manzoor et al., 2019). One of the local tourism industries that is visited by many tourists is Wonosobo Regency. Wonosobo is one of the districts in Central Java where most of the area is highland. This makes Wonosobo Regency also known as the "Cold City" or "Land of Clouds" which holds various natural charms as the main attraction for tourists. Leading natural tourism in Wonosobo regency include Dieng Plateau, Sikunir Peak, Menjer Lake, Sikarim Waterfall, Tami Tea Garden, Wind Lamentation Stone, Mount Prau and many more. In addition to its natural tourism, Wonosobo Regency has cultural tourism such as the Dieng Culture Festival, the Ruwatan Tradition of Anak Rambut Gembel, Rakanan Giyanti, Lengger Graduation, and Folk Art Performances every Sunday. Wonosobo Regency also offers typical culinary, namely Ongklok Noodles, Tempe Kemul, Processed Carica Fruit, Tami Tea, and local coffee.

Decree of the Ministry of Energy and Mineral Resources (EMR) No. 172.K/GL.01/MEM. G/2025 dated May 7, 2025 states that the Dieng Highland Area in Wonosobo and Banjarnegara Regencies is a National Geopark Area. The region includes 40 heritage sites consisting of 23 geological sites, 8 biodiversity sites, and 9 cultural sites. The geological site also has distinctive characteristics, such as active craters, volcanic lakes, and ancient rock structures that can be objects of scientific study and educational tourist attractions.

Tourist visits in Wonosobo Regency every year continue to show a positive trend. Data from the Wonosobo Regency Tourism and Culture Office shows that the number of tourist visits in 2022 was 1,348,984 people, in 2023 there were 1,743,050 people, and in 2024 there were 2,436,979 people. The majority of tourists come from Central Java (49%), followed by West Java (15%), and the Special Region of Yogyakarta (14%). The attraction of natural tourism in Wonosobo is still a leading destination where most tourists (81%) choose to visit natural tourism rather than artificial tourism (17%) and culture (2%). The increase in the trend of tourist visits is certainly inseparable from the sustainable tourism development and marketing strategy of both the manager and the local government.

Some tourist destinations that have emerged today tend to be less in demand because many are famous for only a short time and then fade due to the poor quality of attraction of these destinations (Hermawan, 2017). An important factor to encourage tourism sustainability is by maintaining and forming tourist loyalty. Therefore, it is important to form ongoing loyalty (Al-okaily et al., 2023)

Meanwhile, Suhartanto et al. (2019) define satisfaction as a comparison between pre-trip expectations and previous travel experiences. Based on this concept, travelers will compare expectations about the destination with the quality of experience they get and will result in a feeling of fulfillment and satisfaction or vice versa. Jeong and hin (2019) prove that tourist satisfaction is a predictor of their return visit intention. In order for tourist destinations in Wonosobo Regency to develop and be sustainable, it is necessary to have tourism management that pays attention to the quality of experience, satisfaction, and loyalty of tourists. Academic studies that have been conducted previously by Suhartanto et al., (2024) are limited to examining the influence of smart technology, environmental concern, and destination innovation on the quality of experience and loyalty of tourists in the halal tourism sector with Muslim tourist respondents. Meanwhile, there are other factors that can potentially encourage increased loyalty, such as the image of the destination and tourist satisfaction.

The image of the destination has a positive effect on the quality and perceived satisfaction that will shape one's expectations before visiting (Muis et al., 2020). In addition, the value of destination perception and image directly affects customer satisfaction and also has a positive effect on behavioral intentions (Sukaris et al., 2020). Therefore, this research is intended to complement previous scientific studies related to efforts to manage tourist destinations through improving the quality of experience, tourist satisfaction and tourist loyalty.

METHODS

The research method used is a quantitative method with a survey approach. The type of data used is primary data. It was obtained directly from respondents through the distribution of questionnaires through google forms. The population in this study is tourists who have visited tourist destinations in Wonosobo Regency. Because the population size is not known for sure, the sampling technique in this study uses purposive sampling, namely the non-probability technique,

where respondents are selected deliberately because they are considered relevant and qualified to answer the research question. The methods used to collect data are questionnaires and literature studies. The data obtained was analyzed using a quantitative statistical approach using the Structural Equation Modeling (SEM) method. This technique was used to test the relationship between independent, intervening and dependent variables simultaneously. With the SEM PLS method, researchers can evaluate models built on theory and field data thoroughly.

RESULTS AND DISCUSSION

Respondent Profile

Table 1. Respondent Profile

Criteria	Remarks	Percentage
Gender	Male	47,71%
	Female	52,29%
Age	<17	1%
	17-26	17%
	27-36	67%
	37-46	4%
	47-56	10%
	57-66	1%
Education History	SD	-
	SMP	0,65%
	SMA	25,82%
	D3/S1	68,63%
	S2/S3	4,9%
Jobs	Students	10,13%
	ASN/TNI/POLRI	24,18%
	Labor	5,88%
	Private	39,87%
	Self-employed	11,76%
	Miscellaneous	8,17%

Source: PLS-SEM

Based on Table 1, it shows that out of a total of 306 respondents, female respondents still dominate, at 52.29%, while male respondents are only 47.71%. For the age criteria, the most respondents were in the range of 27-36 years, which was 67%. Furthermore, respondents with a D3/S1 educational history had the highest percentage, which was 68.63%. Meanwhile, the job criteria were dominated by respondents who worked in the private sector by 39.87%.

Internal Consistency Reliability Test

The reliability test in this study used Cronbach's Alpha. The test results showed that all variables had a Cronbach's Alpha value above 0.70, so the research instrument was declared reliable.

Table 2. Internal Consistency Reliability Testing

Variabel	Cronbach Alpha	Remarks
Destination image	0.8554	Excellent
Smart Tourism Technology	0.9217	Excellent
Environmental care	0.9041	Excellent
Destination innovation	0.8986	Excellent
Quality of experience	0.8491	Excellent
Tourist satisfaction	0.9231	Excellent
Tourist loyalty	0.9085	Excellent

Uji Validitas Konvergen

The convergent validity test in this study was carried out by looking at the values of the loading factor, Composite Reliability (CR), and Average Variance Extracted (AVE) in each construct using the PLS-SEM approach. All of the above variables were declared to have good convergent validity because the loading factor values ≥ 0.70, Composite Reliability ≥ 0.70, and AVE ≥ 0.50 so that the research instrument was declared valid and feasible for use in further structural analysis.

Table 3. Convergent Validity Testing

Variabel	Indikator	Factor Loading	Composite Reliabily	AVE
Destination Image	Positive image	0.8862	0.9121	0.7759
	Attractiveness	0.8974		
	Tourist impressions	0.8585		
Smart Tourism Technology	Benefits	0.8991	0.9505	0.8650
	Flexibility	0.9452		
	Ease of access	0.9451		
Environmental Concern	Attitudes toward environmental conservation	0.9097	0.9398	0.8389
	Awareness of environmental issues	0.9149		
	Concern for the environment	0.9231		
Destination Innovation	Green innovation engagement	0.9101	0.9366	0.8313
	Service and facility innovation	0.9078		
	Collaboration with stakeholders	0.9173		
Quality of Experience	Cleanliness and safety	0.8410	0.9087	0.7685
	Enjoyment of tourist activities	0.8940		
	New and exciting	0.8939		
Traveller Satisfaction	Satisfaction	0.9207	0.9513	0.8668
	Pleasant experience	0.9320		
	Meeting expectations	0.9403		
Tourist Loyalty	Intention to Recommend	0.9168	0.9425	0.8454
	Desire to Revisit	0.9354		
	Loyalty	0.9059		

Discriminating Validity Test

The test results showed that the entire square root value of AVE in each variable (diagonal value) was higher than the correlation value between the other variables. Based on the Fornell–Larcker criteria, all constructs in the model have met discriminant validity. Thus, each latent variable in this study is able to represent its construct uniquely and differently from other constructs, so that the measurement model is declared discriminatically valid.

Table 4. Discriminant Validity Testing

Variabel	Environmental care	*Smart Tourism Technology*	Quality of Experience	Traveller Satisfaction	Destination Innovation	Destination Image	Tourist Loyalty
Environmental Awareness	0.9159	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Smart Tourism Technology	0.6309	0.9300	0.0000	0.0000	0.0000	0.0000	0.0000
Quality of Experience	0.6865	0.6666	0.8767	0.0000	0.0000	0.0000	0.0000
Tourist Satisfaction	0.6437	0.6526	0.7936	0.9310	0.0000	0.0000	0.0000
Destination Innovation	0.7301	0.6871	0.7641	0.6698	0.9118	0.0000	0.0000
Destination Image	0.6567	0.5371	0.6675	0.6900	0.5742	0.8808	0.0000
Tourist Loyalty	0.6038	0.6525	0.7543	0.8211	0.6312	0.6527	0.9194

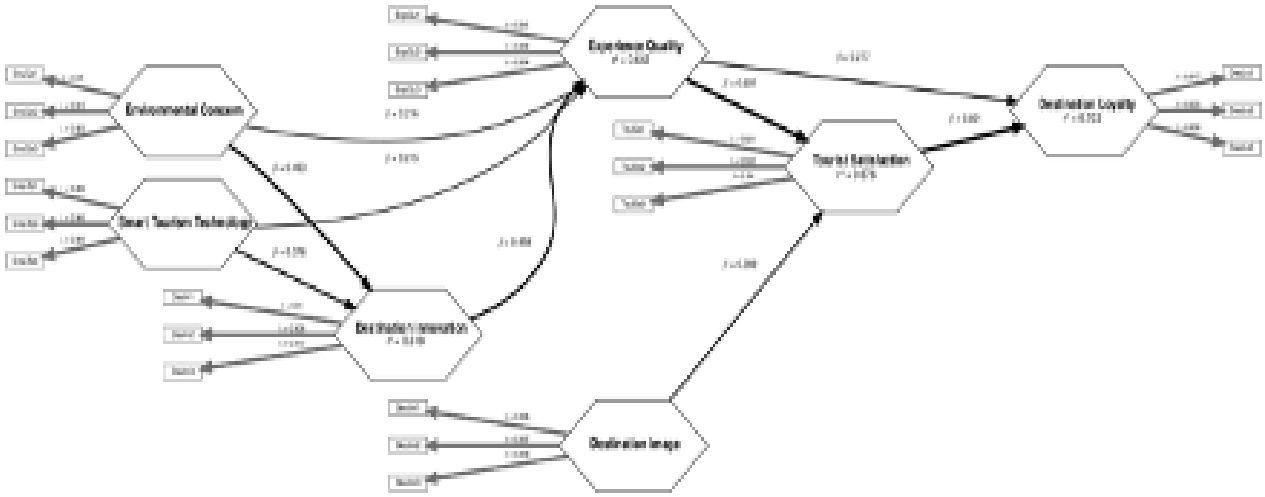

Figure 1. Structural Models

R Square Test Results

The R-Square value (R^2) is used to measure the ability of independent variables to explain the variation of dependent variables in the research model. Overall, the results of the R-Square test show that the research model has sufficient to strong explainability, especially in the variables Destination Loyalty and Tourist Satisfaction.

Table 5. R Square Test Results

Dependent	R-Square	R-Square Adjusted	FCVIF	Status*
Destination innovation	0.6183	0.6158	2.62	Moderate
Destination Loyalty	0.7027	0.7007	3.364	Substantial
Experience Quality	0.6421	0.6385	2.794	Moderate
Tourist Satisfaction	0.6762	0.6740	3.088	Substantial

Hypothesis Testing Results

Table 6. Hypothesis Testing Results

Hipotesis	Original Sample	Standard Deviation	T-Test	Status
Destination Image → Traveller Satisfaction	0.2891	0.0670	4.3132	Signifikan
Smart Tourism Technology → Destination Innovation	0.3763	0.0705	5.3344	Signifikan
Environmental care → Destination Innovation	0.4928	0.0688	7.1631	Signifikan
Smart Tourism Technology → Quality of Experience	0.2154	0.0699	3.0827	Signifikan
Environmental Care → Quality of Experience	0.2160	0.0656	3.2940	Signifikan
Destination Innovation → Quality of Experience	0.4584	0.0615	7.4550	Signifikan
Quality of Experience → Traveler Satisfaction	0.6007	0.0697	8.6139	Signifikan
Quality of Experience → Traveler Loyalty	0.2774	0.0942	2.9446	Signifikan
Traveler Satisfaction → Traveler Loyalty	0.6009	0.0957	6.2803	Signifikan

Hypothesis testing was carried out to determine the influence between variables in the research model. The test results showed that all the proposed hypotheses were accepted, because the t-statistical value of each relationship was greater than 1.96 and had a positive direction of influence.

1. The Influence of Destination Image on Tourist Satisfaction

The path coefficient is 0.2891 with a t-statistic value of 4.3132. These results show that destination image has a positive and significant effect on tourist satisfaction. Thus, the hypothesis

that states the influence of destination image on tourist satisfaction is accepted. The results of this study are in line with what was done by Masnur (2024) that the variable image of the destination affects visitor satisfaction. The better the image of a tourist destination, the higher the satisfaction of tourists when visiting the tourist destination, which means that the image of a tourist destination will have a positive impact on tourist satisfaction.

2. The Influence of Smart Tourism Technology on Destination Innovation

The path coefficient is 0.3763 and the t-statistic value is 5.3344. This shows that the application of smart tourism technology has a positive and significant effect on destination innovation. Thus, the hypothesis is accepted. This is in line with research conducted by Yulianti et al (2024) that Smart Tourism Technology can be used as the most effective promotional medium to promote the image of tourist destinations in the area and thus influence their perception to return to visit. In addition, smart tourism technology can be associated with increasing the efficiency of resource management, increasing sustainability and maximizing competitiveness through the use of various technological innovations and practices.

3. The Influence of Environmental Concern on Destination Innovation

The path coefficient is 0.4928 with a t-statistical value of 7.1631. These results show that environmental concern has a positive and significant effect on destination innovation, so the hypothesis is accepted. This is in line with research conducted by Abate et al (2025) highlighting that the promotion of environmentally friendly travel is very important to get attention to the environment that will encourage the development of more sustainable destination innovations for visitors.

4. The Influence of Smart Tourism Technology on Experience Quality

The value of the path coefficient is 0.2154 with a t-statistic of 3.0827. These results prove that smart tourism technology has a positive and significant effect on the quality of tourist experience, so the hypothesis is accepted. This is in line with research conducted by Rahmawati et al (2023) in their research that smart tourism technology has an effect on the tourism experience. According to Yulianti, et al (2024) the implementation of smart tourism that has been carried out in several regions in Indonesia is expected to help tourists to be able to access and provide information related to the tourist destinations to be visited, knowing the location of these tourist attractions and the accommodation used to achieve these objects and is expected to provide an overall experience for tourists.

5. The Effect of Environmental Concern on Experience Quality

The path coefficient value is 0.2160 and t-statistic is 3.2940. This shows that environmental concern has a positive and significant influence on the quality of the traveller experience. Thus, this hypothesis is accepted. This is in line with research conducted by Suhartanto et al (2024) found that attention to the environment plays an important role in shaping tourist loyalty. Thus, various issues related to the environment can affect the quality of the tourist experience and encourage the creation of loyalty to a destination.

6. The Influence of Destination Innovation on Experience Quality

The value of the path coefficient is 0.4584 and the t-statistic is 7.4550. This proves that destination innovation has a positive and significant effect on the quality of tourist experience. Therefore, this hypothesis is accepted. This is in line with research conducted by Suhartanto et al (2024) that innovations in appropriate services and facilities can improve the tourist experience. This means that tourist destinations that always have new innovations will improve the quality of the experience of tourists so that it affects the satisfaction of tourists when visiting tourist

destinations.

7. The Influence of Experience Quality on Tourist Satisfaction

The value of the path coefficient is 0.6007 with a t-statistic of 8.6139. • These findings show that the quality of the experience has a positive and very strong influence on traveller satisfaction. Therefore, the hypothesis is accepted. This is in line with the research of Prakoso, et al. (2020) who explained that tourist experience has a significant effect on tourist satisfaction so that it can be interpreted that tourist experience has a significant effect on satisfaction. The significant positive influence between tourist experiences on tourist satisfaction implies that the better the tourist experience at tourist destinations in Wonosobo will be able to increase tourist satisfaction and vice versa. If tourists get a bad travel experience, the level of satisfaction will be low.

8. The Influence of Experience Quality on Tourist Loyalty

The path coefficient is 0.2774 with a t-statistic value of 2.9446. These results indicate that the quality of the experience has a positive and significant effect on tourist loyalty, so the hypothesis is accepted. This is the same as the research conducted by Dybsand et al (2023) which explains that high quality of experience contributes to visitor loyalty so building good quality of navigation is very important because it affects tourist loyalty so that tourists can come back again or promote a good experience to others.

9. The Influence of Tourist Satisfaction on Tourist Loyalty

The path coefficient is 0.6009 with a t-statistic value of 6.2803. These findings show that tourist satisfaction has a positive and significant effect on tourist loyalty. Therefore, the hypothesis is accepted. This is in line with Kusuah (2024) researcher that tourists who are satisfied with sustainability efforts will be more loyal and support the initiative. Listyawati, et al. (2022) in their research also explained that there is a positive and significant influence between tourist satisfaction and tourist loyalty.

The results of the hypothesis test showed that all relationships between variables in the research model were proven to have a positive and significant effect. The variables of experience quality and tourist satisfaction have the most dominant role in shaping tourist loyalty, while environmental awareness and smart tourism technology play an important role in driving destination innovation and experience quality.

CONCLUSION

Based on the discussion above, the results of this study provide strong empirical evidence that the factors studied contribute significantly to increasing tourist loyalty in tourist destinations in Wonosobo Regency. This research is expected to provide insight for destination managers in formulating effective strategies to increase tourist satisfaction and loyalty, as well as encourage local economic growth through increasing the number of tourists visiting Wonosobo Regency.

Based on the results of the research conducted, destination managers need to focus on strengthening the image of the destination through effective promotion and improving service quality. In addition, the application of smart tourism technology should be expanded to improve the tourist experience. Managers are also advised to integrate sustainable practices in destination management, given that attention to the environment can increase tourist loyalty

Innovation in products and services should also be a priority, as relevant innovations can improve the quality of the traveller experience. The use of social media and digital platforms in

promoting destinations is important, considering its great influence on tourists' image and decisions.

Based on the results of the study that shows the significant influence of destination image, smart tourism technology, attention to the environment, and destination innovation on the satisfaction and loyalty of tourists in Wonosobo Regency.

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