Research Article

The impact of electronic word-of-mouth and destination image on tourist loyalty in agritourism

Nguyen Thi Kim Thanh, Ngo Trong Tuan, Vuong Thi Hong

Electric Power University, Hanoi,10000, Vietnam

* Corresponding author: Ngo Trong Tuan, tuannt@epu.edu.vn.

ABSTRACT

Objectives. This study evaluates the influence of electronic word-of-mouth (eWOM) and destination image on tourist loyalty at agritourism destinations in Hanoi.

Material and methods. To test the hypotheses, 500 tourists were surveyed at three agritourism sites in Hanoi, and the PLS-SEM approach was applied.

Results. The findings reveal that destination image significantly impacts perceived value and tourist loyalty, while eWOM influences destination image and perceived value. However, the study does not find evidence of a direct relationship between destination image, eWOM, and tourist satisfaction. The results confirm the direct impact of perceived value and satisfaction on tourist loyalty and the relationship between satisfaction and loyalty. Additionally, destination image and eWOM indirectly influence tourist loyalty through perceived value, highlighting its mediating role. Conversely, satisfaction does not mediate the relationship between destination image, eWOM, and tourist loyalty.

Conclusions. The study discusses contributions to theory, practical applications for destination management, research limitations, and directions for future studies.

Keywords: Electronic word-of-mouth (eWOM); destination image; tourist loyalty, agritourism; Hanoi; sustainable development goals (SDG)

1. Introduction

Tourism has become one of the fastest-growing economic sectors globally, with agritourism emerging as a sustainable niche that bridges agriculture and tourism. Agritourism provides unique experiences, such as farming activities, cultural immersion, and eco-friendly practices, appealing to tourists seeking authentic rural experiences. The COVID-19 pandemic and rapid climate change have significantly impacted multiple sectors, including tourism, shifting tourist consumption behavior toward safety, health, and environmentally friendly tourism[1]. In this context, many countries prioritize green growth, with the Development of agritourism identified as a key strategy to achieve sustainability goals. Over recent decades, agritourism has proven to be a promising field, delivering numerous socio-economic benefits to various countries[2,3]. It also serves as an attractive solution for economic diversification[4], contributing to socio-economic Development and fostering stronger connections with local communities[5]. With its thousands of traditional agricultural

villages, Vietnam has significant agritourism development potential. The integration of tourism and agriculture not only creates culturally rich tourism products but also generates sustainable economic value. As of 2020, agricultural land accounted for approximately 80% of Vietnam's total area, with 70% of the population residing in rural and mountainous regions. Globally, Vietnam is recognized as an agricultural country, and agricultural elements are deeply embedded in many of its tourism products. In Hanoi, agritourism has gained momentum due to its rich agricultural heritage and the proximity of rural attractions to urban centers.

Fostering tourist loyalty is a core goal for tourism businesses, as it provides a sustainable competitive advantage[6,7]. Loyal customers generate substantial profits and promote destinations through positive word-of-mouth[8]. Tourist loyalty is a key driver of revisit intentions [9] and facilitates recommendations to others[10,11].

While many studies have explored agricultural tourism[12], research examining the influence of electronic word-of-mouth (eWOM) and destination image on tourist loyalty in agritourism destinations remains limited[13,14]. Attracting and retaining tourists in agritourism requires more than natural beauty or cultural uniqueness. Key drivers such as eWOM and destination image play crucial roles in shaping tourists' perceptions and behaviors, directly influencing tourist loyalty—a critical determinant of long-term success for agritourism destinations.

Despite their importance, the mediating roles of perceived value and satisfaction in the relationship between eWOM, destination image, and tourist loyalty are underexplored[15-17]. Understanding these mediating effects is essential to identify how eWOM and destination image contribute to tourist loyalty, particularly in niche tourism markets like agritourism[18,19]. Moreover, the destination image is often subjective and influenced by personal factors, making its measurement and comparison challenging. The dynamic nature of environmental and social factors further affects destination image stability, highlighting the need for research into emerging elements, such as the impact of eWOM on destination image formation.

This study addresses these gaps by investigating the impact of eWOM and destination image on tourist loyalty at agritourism destinations in Hanoi. It also examines the mediating roles of perceived value and satisfaction in this relationship. Finally, the study provides practical strategies to enhance tourist loyalty through improved destination image and effective eWOM management. By integrating eWOM, destination image, perceived value, and satisfaction into a unified framework, this study offers significant theoretical contributions to understanding tourist loyalty in agritourism. Practically, the findings provide actionable insights for destination managers and policymakers in Hanoi, supporting efforts to enhance the competitiveness and sustainability of agritourism.

2. Literature review

2.1. Agricultural tourism

Agritourism, or agricultural tourism, is a form of tourism where visitors engage in activities related to agriculture, rural living, and nature-based experiences[14]. It is defined as visiting operational farms for recreation, relaxation, education, or entertainment[5]. Typical activities include observing farm landscapes, participating in agricultural processes, and experiencing rural culture[20]. Agritourism has gained importance in developed countries, offering diverse experiences. For instance, in the UK, visitors to the countryside enjoy locally sourced meals and wine while participating in farming tasks like harvesting and feeding livestock[21]. In the US, activities range from milking cows and planting trees to horseback riding and

foraging workshops, such as those offered at Hidden Villa in California and Willow-Witt Ranch in Oregon[22].

According to[21,20,13], agritourism activities can be classified into two main categories: entertainment and education. Entertainment and leisure activities allow visitors to engage in hands-on farming experiences like planting, harvesting, and dining on farm-to-table meals. This category includes nature observation, resort stays, and seasonal events such as harvest festivals. Agricultural education, on the other hand, provides immersive learning opportunities through practical activities like milking livestock, transplanting rice, or cultivating vegetables and mushrooms[4]. These activities educate tourists about farming and offer meaningful cultural and ecological insights. Agritourism bridges tourism and agriculture, promoting sustainable practices, enhancing cultural understanding, and supporting rural economies. Its appeal lies in offering authentic, eco-friendly experiences that meet the growing demand for sustainable tourism options, making it a valuable niche in global tourism development.

2.2. Electronic word-of-mouth, destination image, and tourist loyalty

Word-of-mouth (WOM) is a form of informal communication where individuals share opinions and experiences about products or services, often influencing consumer behavior[10,18]. In tourism, WOM is particularly impactful due to the intangible nature of tourism products, with tourists relying on others' experiences to make decisions[23]. Electronic word-of-mouth (eWOM), shared through digital platforms like social media, review websites, and blogs, has expanded WOM's reach, offering speed and accessibility[24]. eWOM significantly influences destination choice, willingness to pay, revisit intentions, and destination loyalty, as positive eWOM enhances the destination's image and appeal[25,26].

The Destination Image Theory[27] describes destination image as a combination of cognitive (tangible characteristics) and affective (emotions and feelings) components. This theory highlights the importance of perceptions and impressions in shaping tourist behavior, though destination image is subjective and influenced by personal factors, environmental changes, and social dynamics[28]. Research indicates that eWOM significantly impacts destination image by shaping tourist perceptions[19].

Loyalty, a cornerstone of marketing, is often defined as customers' commitment to repurchase products or services[29]. In tourism, loyalty includes intentions to revisit and recommend destinations to others[30]. Studies demonstrate that loyalty is closely tied to satisfaction and perceived value[31,32]. In this study, tourist loyalty is conceptualized as a psychological expression of positive feelings toward agritourism destinations, reflected in the intention to revisit and support the destination[3].

2.3. Mediating roles of perceived value and satisfaction

Perceived value, as defined by[29], is the overall assessment of benefits received relative to costs incurred. In tourism, it comprises functional value (service quality), emotional value (positive experiences), and social value (social recognition). Research shows that perceived value mediates the relationship between destination image and tourist loyalty by enhancing satisfaction[25,33].

Satisfaction, a psychological state where actual experiences meet or exceed expectations[34], is crucial in driving loyalty. Tourists who perceive high value in their experiences are more likely to feel satisfied, which increases their intention to revisit and recommend the destination[19]. Satisfaction also mediates the effects of destination image and perceived value on loyalty. Positive destination images create high expectations, and satisfaction strengthens loyalty when experiences align with these expectations[35]. This study examines how eWOM and destination image influence tourist loyalty, focusing on the mediating roles of perceived value and satisfaction to understand better the mechanisms underlying loyalty in agritourism contexts.

2.4. Hypotheses development

Research highlights the critical role of word-of-mouth (WOM) and electronic word-of-mouth (eWOM) in influencing tourist behavior, including purchasing decisions, destination image perception, and loyalty[10,13]. Positive WOM enhances tourists' emotional and cognitive evaluations of destinations, shaping perceived value and satisfaction factors crucial for loyalty[35]. Similarly, eWOM significantly impacts tourists' revisit intentions and likelihood of recommending destinations by providing credible and sentiment-rich information that enhances perceived value[18,25,26]. Based on these insights, the following hypotheses are proposed:

H1: Electronic word-of-mouth has a direct relationship with the destination image

H2: Electronic word-of-mouth has a direct relationship with satisfaction.

H3: Electronic word-of-mouth has a direct relationship with perceived value.

H4: Electronic word-of-mouth has a direct relationship with loyalty.

Studies by[36] and [31]demonstrate that a destination's image significantly influences tourist loyalty. A positive destination image fosters tourists' intentions to revisit and recommend the destination[37,38]. Moreover, this favorable image enhances perceived value and satisfaction, benefiting destinations and tourism businesses. Based on these findings, the following hypotheses are proposed:

H5: Destination image has a direct relationship with satisfaction.

H6: Destination image has a direct relationship with perceived value.

H7: Destination image has a direct relationship with loyalty.

Perceived value, a critical concept in consumer behavior, reflects individuals' assessments of the appeal and significance of a product or service[39,40]. It is a key determinant of purchasing decisions and customer loyalty. Research by[33] underscores the relationship between destination image, perceived value, and tourist loyalty. Based on these insights, the following hypotheses are proposed:

H8: Perceived value has a direct relationship with satisfaction.

H9: Perceived value has a direct relationship with loyalty.[3] define tourist loyalty as a psychological attachment expressed through preferences for a destination and intentions to return and support it. Studies demonstrate strong interconnections between loyalty, satisfaction, destination image, and tourist experiences[7,41]. Satisfied tourists are more likely to revisit and share positive word-of-mouth[30,42]. Based on these findings, the following hypothesis is proposed:

H10: Satisfaction has a direct relationship with loyalty.[29] identified perceived value as a key driver in consumer decision-making, mediating the effect of external influences such as WOM on satisfaction and loyalty. Research further supports the mediating roles of perceived value and satisfaction in the relationship between destination image and loyalty[9,33,43]. These mediators explain how cognitive (value) and emotional (satisfaction) dimensions translate destination image and eWOM into loyalty. Based on these findings, the following hypotheses are proposed:

H11: Perceived value mediates the relationship between eWOM and loyalty.

H12: Satisfaction mediates the relationship between eWOM and loyalty.

H13: Perceived value mediates the relationship between destination image and loyalty.

H14: Satisfaction mediates the relationship between destination image and loyalty.

3. Research method

The study follows a three-step process to test the research hypotheses: qualitative research, preliminary quantitative research, and official quantitative research. In the first phase, in-depth interviews with tourists and experts in tourism and marketing provided insights to refine the research model, adjust measurement scales, and revise the questionnaire. The second phase involved preliminary quantitative research to validate the adjusted model and scales. Finally, official quantitative research was conducted to test the hypotheses and validate the proposed model comprehensively. **Table 1** presents the finalized scales and their origins, reflecting adjustments based on expert feedback.

Table 1. Measurement scales and their sources.

Variables	Scale	Code	Sources
Satisfaction	I think this agricultural tourism destination will bring good experiences	SA1	[30]
	This agritourism destination experience was what I needed	SA2	
	I enjoyed this agritourism destination.	SA3	
	Overall, I am satisfied with this agritourism destination	SA4	
Perceived value	I think this agricultural tourism destination will bring good experiences	PV1	[30]
	This agritourism destination experience was what I needed	PV2	
	I enjoyed this agritourism destination.	PV3	
Electronic word-of-mouth	I frequently search for information from reviews or comments about this destination online.	WOM1	[10], [18]
	Online opinions and reviews have influenced my decision to choose this destination.	WOM2	
	The online information about this destination is straightforward, easy to understand, and detailed.	WOM3	
	The content I found on online platforms is highly relevant to my needs	WOM4	
Destination image	This agritourism destination is famous for its nature, history, and name	DI1	[5], [14]
	This agricultural tourism destination has built a beautiful image in the eyes of tourists.	DI2	
	This agritourism destination exudes a historical, dynamic, and fun atmosphere.	DI3	
Loyalty	I consider myself a loyal tourist of this agritourism destination	LOY1	[30]
	I will continue to come to this agritourism destination	LOY2	
	I will recommend this agritourism project to those who need my advice	LOY3	
	I will tell others positive things about this agritourism destination	LOY4	

All observed variables in the constructs were measured using a five-point Likert scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Additionally, the questionnaire collected demographic information from the survey sample, including the gender, age, and income of the tourists.

3.1. Pilot study of the questionnaire

A pilot study was conducted to assess the reliability of the questionnaire. Seventy tourists were invited to participate, comprising 30 tourists from Dong Anh and 40 tourists from Ba Vi. Reliability testing, based on Cronbach's Alpha coefficients, indicated that all constructs achieved a Cronbach's Alpha value greater than 0.7, demonstrating acceptable internal consistency and reliability of the measurement scales [44].

Following the pilot study, formal quantitative research was conducted with 600 tourists who visited agritourism destinations in Hanoi. Data were collected through survey methods at key locations, including

the Ban Rom ecotourism area in the Soc Son district, the Country Farm in the Ba Vi district, and the Chimi Farm 4 ecological site in the Dong Anh district. The data collection period spanned from April to July 2024.

3.2. Common method bias (CMB) assessment

To ensure no Common Method Bias (CMB), the study applied **Harman's Single-Factor Test** and checked multicollinearity through **VIF**. Exploratory Factor Analysis (EFA) revealed three factors, with the first accounting for 45% of the variance (<50%), confirming no significant CMB (Podsakoff et al., 2003). VIF values were below 2, within acceptable thresholds (<3: Hair Jr et al., 2021; <5:[46], ruling out multicollinearity. These results validate that the data are free from CMB, ensuring reliability and accuracy in analysis.

3.3. Data analysis

The study employed Partial Least Squares Structural Equation Modeling (PLS-SEM) to analyze the data collected through structured questionnaires using SPSS and SmartPLS software. Following[47], the PLS-SEM model was evaluated in two stages: the measurement and structural models. The measurement model was assessed for the constructs' reliability, convergent validity, and discriminant validity. The structural model was tested using bootstrapping with 3,000 iterations to evaluate the significance of indicators and paths. Key metrics included: Variance Inflation Factor (VIF): To assess multicollinearity. Effect Size (f^2): To measure the impact of exogenous variables on endogenous variables.Predictive Relevance (Q^2): To assess out-of-sample predictive ability.Explained Variance (R^2): To determine the proportion of variance explained by the independent variables.

4. Research results

4.1. Descriptive statistics for the study sample

600 survey responses were collected, but some were excluded due to missing data or unreliable answers. After data cleaning, 500 valid responses were retained for analysis. These responses were subjected to descriptive statistical analysis to ensure the sample's suitability and representativeness. The demographic characteristics, including gender, age, education, and income, were statistically described. **Table 2** presents the demographic profile of the study sample.

Table 2. Demographic profile of the study sample.

Indicators		Frequency	Rate (%)
Gender	Male	246	49.2
	Female	254	50.8
Age	≤ 25	130	26.0
	26- 40	261	52.2
	>40	109	21.8
Level	High school or below	134	26.8
	College	179	35.8
	University or above	187	37.4
Income	≤ 10 million dong	143	28.6
	10-15 million dong	190	38.0
	>15 million dong	167	33.4
Total		500	100.0

Among the 500 surveyed tourists visiting agritourism destinations in Hanoi, 49.2% were men (246) and 50.8% were women (254), aligning with market trends and previous studies. Most respondents (52.2%) were aged 25-40, followed by 26% under 25 and 21.8% over 40. Educational levels were divided into below high school, high school/college graduates, and university/postgraduate qualifications. Monthly income was categorized into less than 10 million VND, 10–15 million VND, and over 15 million VND. These demographics provide a representative profile of agritourism visitors in Hanoi.

4.2. Model fit indices

Reliability assesses the consistency and stability of observed variables in the model. It includes evaluating the reliability of individual scales and the internal consistency among scales. The reliability of each scale is determined using factor loading indices, with acceptable values exceeding 0.7. Internal consistency is evaluated through composite reliability (CR) and Cronbach's alpha, which should also exceed the threshold of 0.7. These metrics collectively ensure the measurement scales are reliable and suitable for further analysis.

Table 3. Reliability indices of the measurement model.

Variable	Code	Loading	Cronbach's Alpha	CR	AVE
Electronic word-of-mouth	eWOM1	0.759	0.810	0.875	0.637
	eWOM2	0.742			
	eWOM3	0.864			
	eWOM4	0.821			
Destination image	DI1	0.905	0.890	0.932	0.820
	DI2	0.905			
	DI3	0.907			
Perceived value	PV1	0.908	0.892	0.933	0.822
	PV2	0.911			
	PV3	0.900			
Tourist satisfaction	SA1	0.809	0.872	0.912	0.722
	SA2	0.871			
	SA3	0.878			
	SA4	0.839			
Tourist loyalty	LOY1	0.881	0.913	0.939	0.792
	LOY2	0.876			
	LOY3	0.903			
	LOY4	0.900			

Table 3 demonstrates that both CR and Cronbach's alpha exceed 0.7, confirming statistically significant and acceptable internal consistency for the constructs. Additionally, the average variance extracted (AVE) values are more significant than 0.5, meeting the recommendations of[45]. Furthermore, all factor loadings for the latent variables in the model are above 0.7, indicating the linear structural model[45]suggested. These results confirm the model's reliability and validity for further analysis.

Table 4. Fornell and larcker discriminant validity values.

	Destination image	Perceived value	Tourist loyalty	Tourist satisfaction	Electronic word-of-mouth
Destination image	0.906				
Perceived value	0.516	0.907			
Tourist loyalty	0.423	0.442	0.890		
Tourist satisfaction	0.127	0.244	0.323	0.850	
Electronic word-of-mouth	0.351	0.317	0.452	0.151	0.798

Table 4 presents additional analytical parameters confirming the model's statistical validity. Discriminant validity is ensured, as all diagonal values exceed the corresponding off-diagonal values in the same column. Additionally, the study further evaluates discriminant validity using the Heterotrait-Monotrait Ratio (HTMT) to strengthen the validity assessment.

Table 5. HTMT discriminant validity values.

	Destination image	Perceived value	Tourist loyalty	Tourist satisfaction
Perceived value	0.578			
Tourist loyalty	0.469	0.488		
Tourist satisfaction	0.144	0.276	0.357	
Electronic word-of-mouth	0.404	0.368	0.523	0.176

Table 5 shows that all HTMT values are below 0.85, confirming discriminant validity and ensuring the model's fit.

4.3. Hypothesis testing results

Table 6 indicates that all Variance Inflation Factor (VIF) values in this study are below 3, confirming the absence of multicollinearity issues among the predictor constructs.

Table 6. VIF, f², R², and Q² values of the structural model.

	R²	Q²	Perceived value		Tourist loyalty		Tourist satisfaction		Electronic word-of-mouth	
			f²	VIF	f²	VIF	f²	VIF	f²	VIF
Destination image	0.12	0.10	0.26	1.14	0.04	1.439	0.00	1.439	0.14	1.00
Perceived value	0.28	0.21			0.04	1.457	0.36	1.40	0.03	1.14
Tourist loyalty	0.36	0.28					0.06	1.07	0.11	1.18
Tourist satisfaction	0.06	0.04							0.00	1.07

The results indicate that the R² values demonstrate an acceptable level of variance explained by the independent variables for the dependent variables. The effect sizes are also reasonable, as all f² values exceed 0.02, reflecting moderate influence. The Q² values are more significant than 0, confirming the out-of-sample predictive power of the research variables in the structural model. Detailed results of the structural model evaluation, including path coefficients, t-values, and p-values, are provided in **Table 7**.

Table 7. Results of direct relationships in the structural model.

Hypothesis	Original Sample (O)	T Values	P Values	Results
Destination image -> Perceived value	0.461	10.825	0.000	Supported
Destination image -> Tourist loyalty	0.191	4.211	0.000	Supported
Destination image -> Tourist satisfaction	-0.020	0.407	0.684	Unsupported
Electronic word-of-mouth -> Destination image	0.351	8.232	0.000	Supported
Electronic word-of-mouth -> Perceived value	0.155	3.429	0.001	Supported
Electronic word-of-mouth -> Tourist loyalty	0.290	7.343	0.000	Supported
Electronic word-of-mouth -> Tourist satisfaction	0.086	1.858	0.064	Unsupported
Perceived value -> Tourist loyalty	0.201	4.375	0.000	Supported
Perceived value -> Tourist satisfaction	0.227	4.612	0.000	Supported
Tourist satisfaction -> Tourist loyalty	0.206	6.249	0.000	Supported

According to[45], hypotheses are supported if the t-value exceeds 1.96 and the p-value is less than 0.05. The results confirm that destination image significantly influences perceived value ($\beta = 0.461$; $t = 10.082$; $p < 0.01$) and tourist loyalty ($\beta = 0.191$; $t = 4.211$; $p < 0.01$). Additionally, electronic word-of-mouth has a significant impact on destination image ($\beta = 0.351$; $t = 8.232$; $p < 0.01$) and perceived value ($\beta = 0.155$; $t = 3.429$; $p < 0.01$). However, the findings indicate no significant influence of destination image and electronic word-of-mouth on tourist satisfaction ($t < 1.96$, $p > 0.05$).

The results also show that perceived value has a direct positive effect on both satisfaction ($\beta = 0.227$; $t = 4.612$; $p < 0.01$) and tourist loyalty ($\beta = 0.201$; $t = 4.375$; $p < 0.01$). Furthermore, the relationship between satisfaction and tourist loyalty in agritourism is also supported ($\beta = 0.206$; $t = 6.249$; $p < 0.01$). These findings provide evidence for the structural relationships in the proposed model. The results are visually summarized in **Figure 1**.
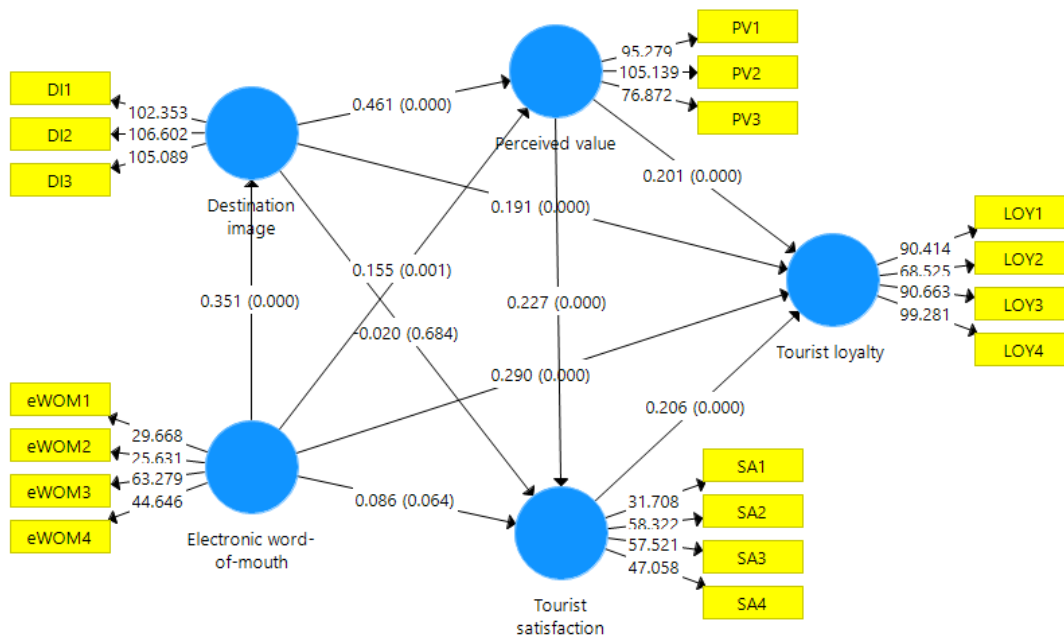

Figure 1. Results of pls-sem structural model analysis.

According to[50], testing the mediating role of a variable requires the t-value to exceed 1.96, the p-value to be less than 0.05, and the confidence interval to not include zero. **Table 8** illustrates the significant indirect influence of destination image and eWOMon tourist loyalty through perceived value, confirming its mediating role. However, the results do not support an indirect relationship between destination image, eWOM, and tourist loyalty through satisfaction. This indicates that satisfaction does not act as a mediator in this study.

Table 8. Results of indirect effects in the structural model.

Hypothesis	Original Sample (O)	T Values	P Values	Confidence Intervals		Results
				2.5%	97.5%	
Destination image -> Perceived value -> Tourist loyalty	0.093	4.096	0.000	0.05	0.15	Supported
Destination image -> Tourist satisfaction -> Tourist loyalty	-0.004	0.397	0.692	-0.03	0.02	Unsupported
Electronic word-of-mouth -> Destination image -> Perceived value	0.162	6.766	0.000	0.01	0.05	Supported
Electronic word-of-mouth -> Tourist satisfaction -> Tourist loyalty	0.018	1.832	0.068	-0.001	0.04	Unsupported

4.4. Results discussion

In tourism research, customer loyalty is widely recognized as a multi-faceted concept influenced by factors such as destination image[51], expectations[52] self-congruity[53,54], and satisfaction[55-57]. This study adds to the growing literature by investigating the relationships among destination image, eWOM, perceived value, satisfaction, and tourist loyalty in agritourism.

The study confirms the significant influence of destination image and eWOM on tourist loyalty, supporting findings from[51] and[58]. A strong destination image fosters emotional and cognitive connections, encouraging revisitation and positive recommendations. However, while previous studies[10,13,36,59] highlighted a positive relationship between eWOM, destination image, and satisfaction, this study does not find a significant direct effect. This divergence may be attributed to the specific context of agritourism, where satisfaction is more closely linked to perceived value and personal experiences rather than the abstract qualities of the destination image.

The study also reveals the significant impact of eWOM on destination image, aligning with the findings of[40,36] and[25]. It plays a crucial role in shaping perceptions, especially in agritourism, where tourists often rely on shared experiences to evaluate the authenticity and quality of destinations. This result bridges a gap in prior agritourism research, which lacked empirical evidence of the direct relationship between eWOM and destination image[10,11,13].eWOM emerges as a critical factor in enhancing the appeal of agritourism destinations.

This study underscores the mediating role of perceived value in the relationship between destination image, eWOM, and tourist loyalty. Perceived value serves as a cognitive filter, where tourists evaluate their experiences based on a balance of costs and benefits[29]. The findings align with research by[33,43,9,60], and and[30], demonstrating that perceived value significantly influences satisfaction and loyalty. However, this study advances the literature by showing that perceived value, rather than satisfaction, mediates the indirect relationships between destination image, eWOM, and loyalty.

Contrary to prior studies that emphasize satisfaction as a mediating variable[33,51,61], this study does not find evidence supporting its mediating role between destination image, eWOM, and tourist loyalty. This discrepancy suggests that loyalty may be driven more by perceived value and direct emotional connections to the destination in agritourism rather than overall satisfaction. Agritourism's experiential and niche nature could explain why satisfaction plays a diminished role compared to perceived value.

This study reinforces the critical roles of destination image, eWOM, and perceived value in shaping tourist loyalty while challenging the conventional mediating role of satisfaction. These findings provide a comprehensive understanding of loyalty mechanisms in agritourism, contributing to both theory and practice in sustainable tourism development. Further research could explore the context-specific factors that diminish the role of satisfaction and expand these insights to other tourism niches.

5. Conclusion and implications

This investigation investigates the impact of eWOMand destination images on tourist commitment to agriculture-related tourism in the context of tourist destinations in Hanoi that are dedicated to agriculture. Through the application of the PLS-SEM method to data gathered from 500 tourists, the results indicate several significant associations, as well as the limitations of traditional approaches to loyalty. Notably, 9 of the 13 hypotheses were supported, this confirmed the critical role of eWOM and destination images in enhancing tourist commitment. However, the investigation revealed no significant association between destination reputation and WOM, nor an indirect effect of these constructs on tourist satisfaction via loyalty. These findings contradict the commonly held mediating role of satisfaction in traditional tourist models, they instead suggest that perceived value is more significant in regards to loyalty.

5.1. Theoretical contributions

The findings confirm the pivotal role of destination image in enhancing tourist loyalty. In agritourism, destination image is not just a representation of natural beauty but also an expression of rural cultural heritage, historical significance, and the vibrancy of agricultural practices. A positive destination image fosters emotional and cognitive connections with tourists, influencing their willingness to revisit and recommend the destination. This supports prior studies[51,58] while emphasizing the unique attributes of agritourism destinations. The study also highlights the role of eWOM, particularly in influencing destination image and perceived value. eWOM is a credible and authentic source of information, particularly for niche tourism markets like agritourism, where tourists often rely on shared experiences to form expectations. This finding aligns with prior research [25,36,40] but also bridges a gap in the literature by confirming eWOM's direct impact on destination image and perceived value in agritourism contexts[10].

A significant contribution of this study is its identification of perceived value as a critical mediator between destination image, eWOM, and tourist loyalty. Unlike satisfaction, which traditionally plays a mediating role[61], perceived value offers a more comprehensive explanation of how tourists evaluate agritourism experiences. This finding is particularly relevant for agritourism, where tourists prioritize unique, immersive, and cost-effective experiences. Interestingly, the study does not support satisfaction as a mediator between destination image, WOM, and loyalty. This challenges conventional models and suggests that loyalty may be more directly influenced by perceived value and the emotional attachment fostered by WOM and destination image in agritourism. The experiential nature of agritourism could explain why satisfaction plays a lesser role than other tourism contexts.

5.2. Practical implications

Agritourism managers must invest in building and maintaining a strong, attractive destination image. This involves Highlighting natural beauty, agricultural heritage, and cultural identity; Creating visual and emotional branding that resonates with target demographics; and leveraging digital platforms to showcase authentic visitor experiences.eWOM is a powerful tool for promoting agritourism. Encouraging satisfied tourists to share their experiences on social media, blogs, and review platforms can amplify positive perceptions. Managers can foster eWOM by Creating shareable, Instagram-worthy experiences, Offering incentives for reviews and referrals, and ensuring high-quality service to generate organic positive feedback.

Perceived value is central to loyalty in agritourism. To enhance perceived value, destination managers should Offer cost-effective, unique, and experiential activities; combine traditional agricultural practices with modern comforts, appealing to emotional and functional value dimensions; and use digital transformation to provide personalized recommendations and seamless booking experiences.

Local governments should prioritize sustainable, inclusive, and community-centered agritourism development. Strategies include Promoting eco-friendly practices and preserving agricultural traditions, encouraging community participation to foster innovation and authenticity, and developing high-value tourism products that appeal to environmentally conscious travelers.

5.3. Limitations and future research directions

The study focused on three agritourism destinations in Hanoi, limiting its generalizability. Future research should include diverse destinations across Vietnam to provide a more comprehensive understanding of agritourism loyalty. The study did not explore how demographic factors such as age, gender, or income influence loyalty. Future studies should examine these variables to uncover differences in tourist behavior. Including variables such as expectations, service quality, and emotional attachment could provide a more holistic understanding of the drivers of loyalty. Future studies should also explore cross-cultural differences to examine how agritourism loyalty varies across different nationalities and cultural contexts. Applying advanced analytical techniques, such as multi-group analysis or longitudinal studies, could provide deeper insights into the dynamics of loyalty formation over time and across different tourist segments.

This study challenges traditional loyalty models by emphasizing the mediating role of perceived value and downplaying the role of satisfaction in agritourism. It contributes to theoretical advancements while offering practical strategies for agritourism managers and policymakers to foster sustainable and inclusive tourism. Future research should build on these findings to address the limitations and explore new dimensions of agritourism loyalty.

Conflict of interest

The authors declare no conflict of interest.

References

1. M. M. Ismail and N. M. Daud, "Post Covid-19: Developing a Homestay Business By Adopting A Social Entrepreneurship Approach," International Journal of Academic Research in Business and Social Sciences, vol. 10, no. 9, pp. 33–43, 2020.
2. Wang dkk., "The Role of Destination Image in Formation of Destination Loyalty at Leisure Farm: Difference Between First-Time and Repeat Visitors," International Journal of Agricultural Travel and Tourism, vol. 2, no. 2, pp. 106. – 121, 2011.
3. G. Leo et al., "Attraction loyalty, destination loyalty, and motivation: agritourist perspective," Current Issues in Tourism, vol. 24, no. 9, pp. 1244–1256, 2021.
4. F. G. Santeramo and M. Morelli, "Enhancing the foreign demand for agritourism," 2015.
5. R.-D. Liang, T.-Y. Hsiao, D.-J. Chen, and J.-H. Lin, "Agritourism: Experience design, activities, and revisit intention," Tourism Review, vol. 76, no. 5, pp. 1181–1196, 2021.

6. E. Hungenberget al., "The relationship between sport tourists' perceived value and destination loyalty: an experience-use history segmentation approach," Journal of Sport and Tourism, vol. 9, no. 2, pp. 331–342, 2018, doi: 10.1080/1477508052000341887.
7. Y. Jeong and S. Kim, "A study of event quality, destination image, perceived value, tourist satisfaction, and destination loyalty among sport tourists," Asia Pacific Journal of Marketing and Logistics, vol. 32, no. 4, pp. 940–960, 2020, doi: 10.1108/APJML-02-2019-0101.
8. H. Zhang, X. Fu, L. A. Cai, and L. Lu, "Destination image and tourist loyalty: A meta-analysis," Tour Manag, vol. 40, pp. 213–223, 2014.
9. D. Stylidis, K. M. Woosnam, and M. Ivkov, "Tourists' emotional solidarity with residents: A segmentation analysis and its links to destination image and loyalty," Journal of Destination Marketing and Management, vol. 17, no. July, p. 100458, 2020, doi: 10.1016/j.jdmm.2020.100458.
10. S. Jumanazarov, A. Kamilov, and K. Kiatkawsin, "Impact of Samarkand's destination attributes on international tourists' revisit and word-of-mouth intention," Sustainability, vol. 12, no. 12, p. 5154, 2020.
11. M. N. Khuong and N. T. Phuong, "The effects of destination image, perceived value, and service quality on tourist satisfaction and word-of-mouth—a study in Ho Chi Minh City, Vietnam," International Journal of Trade, Economics and Finance, vol. 8, no. 5, pp. 217–224, 2017.
12. M. N. Alim, N. Sayidah, I. A. Faisol, and N. Alyana, "Halal Tourism in Rural Tourism Context: Field Study in Madura-Indonesia," International Journal of Professional Business Review, vol. 8, no. 2, p. e01546, Mar. 2023, doi: 10.26668/businessreview/2023.v8i2.1546.
13. Nanggong and A. Mohammad, "The impact of cultural tourism experience on electronic word-of-mouth (e-WOM) and destination image," Diponegoro International Journal of Business, vol. 3, no. 2, pp. 68–79, 2020.
14. D. Suhartanto, D. Dean, B. T. Chen, and L. Kusdibyo, "Tourist experience with agritourism attractions: what leads to loyalty?," Tourism Recreation Research, vol. 45, no. 3, pp. 364–375, 2020.
15. S. Castellano and V. Dutot, "Investigating the influence of E-word-of-mouth on E-reputation," International Studies of Management & Organization, vol. 47, no. 1, pp. 42–60, 2017.
16. Z. Fuaddah, I. D. A. Nurhaeni, and A. Rahmanto, "Digital marketing and electronic word of mouth (eWOM) tourism post COVID-19," International Journal of Multicultural and Multireligious Understanding, vol. 9, no. 3, pp. 547–558, 2022.
17. K. Rouibah, N. Al-Qirim, Y. Hwang, and S. G. Pouri, "The determinants of eWoM in social commerce: The role of perceived value, perceived enjoyment, trust, risks, and satisfaction," Journal of Global Information Management (JGIM), vol. 29, no. 3, pp. 75–102, 2021.
18. Goyette, L. Ricard, J. Bergeron, and F. Marticotte, "e-WOM Scale: word-of-mouth measurement scale for e-services context," Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration, vol. 27, no. 1, pp. 5–23, 2010.
19. J. Liu, C. Wang, S. Fang, and T. Zhang, "Scale development for tourist trust toward a tourism destination," Tour Manag Perspect, vol. 31, pp. 383–397, 2019.
20. Fleischer and A. Tchetchik, "Does rural tourism benefit from agriculture?," Tour Manag, vol. 26, no. 4, pp. 493–501, 2005.
21. M. H. Casey, "Understanding the Alabama agritourism industry: Motivation, value, and cost," 2021, Auburn University.
22. L. Cohn, "Experience life and food from the ground up with agritourism," USA Today, pp. 02D-02D, 2018.
23. G.-J. H. Sun Y. and S. Wang, "Examining the relationships between e-WOM, consumer ethnocentrism and brand equity," J Bus Res, vol. 130, pp. 564–573, 2021.
24. T. Hennig-Thurau, K. P. Gwinner, G. Walsh, and D. D. Gremler, "Electronic word-of-mouth via consumer-opinion platforms: what motivates consumers to articulate themselves on the internet?," Journal of interactive marketing, vol. 18, no. 1, pp. 38–52, 2004.
25. F. Quoquab, J. Mohammad, and A. M. Mohd Sobri, "Psychological engagement drives brand loyalty: evidence from Malaysian ecotourism destinations," Journal of Product & Brand Management, vol. 30, no. 1, pp. 132–147, 2021.
26. M. Munar and J. K. S. Jacobsen, "Motivations for sharing tourism experiences through social media," Tour Manag, vol. 43, pp. 46–54, 2014.
27. C. M. Echtner and J. R. B. Ritchie, "The measurement of destination image: An empirical assessment," J Travel Res, vol. 31, no. 4, pp. 3–13, 1993.
28. H. Jenkins, "Understanding and measuring tourist destination images," International journal of tourism research, vol. 1, no. 1, pp. 1–15, 1999.
29. V. A. Zeithaml, "Consumer perceptions of price, quality, and value: a means-end model and synthesis of evidence," J Mark, vol. 52, no. 3, pp. 2–22, 1988.
30. C. Nilplub, D. B. Khang, and D. Krairit, "Determinants of destination loyalty and the mediating role of tourist satisfaction," Tourism Analysis, vol. 21, no. 2–3, pp. 221–236, 2016.

31. C. G.-Q. Chi and H. Qu, "Examining the structural relationships of destination image, tourist satisfaction and destination loyalty: An integrated approach," Tour Manag, vol. 29, no. 4, pp. 624–636, 2008.
32. Yuksel, F. Yuksel, and Y. Bilim, "Destination attachment: Effects on customer satisfaction and cognitive, affective and conative loyalty," Tour Manag, vol. 31, no. 2, pp. 274–284, 2010.
33. Z. Abbasi et al., "Application of destination choice model: Factors influencing domestic tourists destination choice among residents of Nairobi, Kenya," Psychol Mark, vol. 18, no. 3, pp. 7251–7272, 2020, doi: https://doi.org/10.1016/j.jvb.2019.103369.
34. R. L. Oliver, "Whence consumer loyalty?," J Mark, vol. 63, no. 4_suppl1, pp. 33–44, 1999.
35. H. Zhang, Y. Wu, and D. Buhalis, "A model of perceived image, memorable tourism experiences and revisit intention," Journal of destination marketing & management, vol. 8, pp. 326–336, 2018.
36. H. Moon and H. Han, "Tourist experience quality and loyalty to an island destination: The moderating impact of destination image," Journal of Travel & Tourism Marketing, vol. 36, no. 1, pp. 43–59, 2019.
37. W. Kim and K. Malek, "Effects of self-congruity and destination image on destination loyalty: the role of cultural differences," Anatolia, vol. 28, no. 1, pp. 1–13, 2017, doi: 10.1080/13032917.2016.1239209.
38. D. Krešić and D. Prebežac, "Index of destination attractiveness as a tool for destination attractiveness assessment," Tourism: An International Interdisciplinary Journal, vol. 59, no. 4, pp. 497–517, 2011.
39. M. Caber, T. Albayrak, and D. Crawford, "Perceived value and its impact on travel outcomes in youth tourism," Journal of Outdoor Recreation and Tourism, vol. 31, no. August, p. 100327, 2020, doi: 10.1016/j.jort.2020.100327.
40. K.-H. Kim and D.-B. Park, "Relationships among perceived value, satisfaction, and loyalty: Community-based ecotourism in Korea," Journal of Travel & Tourism Marketing, vol. 34, no. 2, pp. 171–191, 2017.
41. R. Eid and H. El-Gohary, "The role of Islamic religiosity on the relationship between perceived value and tourist satisfaction," Tour Manag, vol. 46, pp. 477–488, 2015.
42. S. Ghose and M. Johann, "Measuring tourist satisfaction with destination attributes," Journal of Management and Financial Sciences, no. 34, pp. 9–22, 2018.
43. C.-F. F. Chen and F.-S. S. Chen, "Experience quality, perceived value, satisfaction and behavioral intentions for heritage tourists," Tour Manag, vol. 31, no. 1, pp. 29–35, 2010, doi: 10.1016/j.tourman.2009.02.008.
44. J. C. Nunnally and I. H. Bernstein, Psychometric Theory, 3rd ed. New York, NY: McGraw-Hill, Inc., 1994.
45. J. F. Hair Jr, G. T. M. Hult, C. M. Ringle, and M. Sarstedt, A primer on partial least squares structural equation modeling (PLS-SEM). Sage publications, 2021.
46. N. Kock, "Common method bias in PLS-SEM: A full collinearity assessment approach," International Journal of e-Collaboration, vol. 11, no. 4, pp. 1–10, 2015.
47. J. Henseler, C. M. Ringle, and M. Sarstedt, "Using partial least squares path modeling in advertising research: basic concepts and recent issues," in Handbook of research on international advertising, Edward Elgar Publishing, 2012.
48. C. Fornell and D. F. Larcker, "Structural equation models with unobservable variables and measurement error: Algebra and statistics," 1981, Sage Publications Sage CA: Los Angeles, CA.
49. J. Henseler, C. M. Ringle, M. Sarstedt, and R. C. M. & S. M. Henseler J., "A new criterion for assessing discriminant validity in variance-based structural equation modeling," J Acad Mark Sci, vol. 43, no. 1, pp. 115–135, 2015.
50. X. Zhao, J. G. Lynch Jr, and Q. Chen, "Reconsidering Baron and Kenny: Myths and truths about mediation analysis," Journal of consumer research, vol. 37, no. 2, pp. 197–206, 2010.
51. Milovanović, R. Matić, K. Alexandris, N. Maksimović, Z. Milošević, and P. Drid, "Destination Image, Sport Event Quality, and Behavioral Intentions: The Cases of Three World Sambo Championships," Journal of Hospitality and Tourism Research, vol. 45, no. 7, pp. 1150–1169, 2021, doi: 10.1177/1096348019883920.
52. R.-H. Kung, "A Study of the Tourists Expectation, Satisfaction and Revisiting Intention in the Neiwan, Hsinchu," International Journal of New Developments in Engineering and Society, vol. 2, no. 1, pp. 43–49, 2018.
53. S. Sop, "Self-congruity theory in tourism research: A systematic review and future research directions," European Journal of Tourism Research, vol. 26, p. 2604, 2020.
54. C. R. Liu, W. R. Lin, and Y. C. Wang, "Relationship between self-congruity and destination loyalty: Differences between first-time and repeat visitors," Journal of Destination Marketing and Management, vol. 1, no. 1–2, pp. 118–123, 2012, doi: 10.1016/j.jdmm.2012.05.002.
55. M. M. Battour, M. M. Battor, and M. Ismail, "The mediating role of tourist satisfaction: A study of Muslim tourists in Malaysia," Journal of Travel & Tourism Marketing, vol. 29, no. 3, pp. 279–297, 2012.
56. N. Saqib, "A positioning strategy for a tourist destination, based on analysis of customers' perceptions and satisfactions: A case of Kashmir, India," Journal of Tourism Analysis, vol. 26, no. 2, pp. 131–151, Sep. 2019, doi: 10.1108/JTA-05-2019-0019.
57. H.-C. Wu and T. Li, "A study of experiential quality, perceived value, heritage image, experiential satisfaction, and behavioral intentions for heritage tourists," Journal of Hospitality & Tourism Research, vol. 41, no. 8, pp. 904–944, 2017.

58. D. Stylidis, K. M. Woosnam, and A. D. A. Tasci, "The effect of resident-tourist interaction quality on destination image and loyalty," Journal of Sustainable Tourism, vol. 30, no. 6, pp. 1219–1239, 2022, doi: 10.1080/09669582.2021.1918133.

59. J.-H. Kim, "The impact of memorable tourism experiences on loyalty behaviors: The mediating effects of destination image and satisfaction," J Travel Res, vol. 57, no. 7, pp. 856–870, 2018.

60. R. Eid, Y. A. El-Kassrawy, and G. Agag, "Integrating Destination Attributes, Political (In)Stability, Destination Image, Tourist Satisfaction, and Intention to Recommend: A Study of UAE," Journal of Hospitality and Tourism Research, vol. 43, no. 6, pp. 839–866, 2019, doi: 10.1177/1096348019837750.

61. Fotiadis, N. Stylos, and C. A. Vassiliadis, "Travelling to compete: antecedents of individuals' involvement in small-scale sports events," Tourism Recreation Research, vol. 46, no. 4, pp. 531–547, 2021, doi: 10.1080/02508281.2020.1808934.