VOL. 9. NO. 2 FEBRUARY 2024
P-ISSN: 2685-8223 | E-ISSN: 2527-4864
DOI: 10.33480 /jitk.v9i2.5044

JITK (JURNAL ILMU PENGETAHUAN DAN TEKNOLOGI KOMPUTER)

THE ROLE OF INFORMATION SYSTEMS IN ADVANCING SMART VILLAGES: A RURAL TOURISM CASE STUDY

Agus Trihandoyo[1*]; Rizki Hesananda[2]; Kushandajani[3]; Firman Muhksin[4]

Department of Information Systems and Technology[1,4]
Department of Information Technology[2]
Universitas Siber Indonesia[1,2,4]
https://cyber-univ.ac.id[1,2,4]
agus.trihandoyo@cyber-univ.ac.id[1*], hessananda@cyber-univ.ac.id[2], firmanmuhksin@cyber-univ.ac.id[4]

Department of Government Science, Faculty of Social and Political Sciences[3]
Universitas Diponegoro[3]
https://www.undip.ac.id[3]
ningkisworo123@gmail.com[3]

(*) Corresponding Author

Abstract— *Recent studies highlight the need for a deeper understanding of the ways in which information systems, local government policy and community involvement affect the development of rural tourism. By using Structural Equation Modelling and Partial Least Squares (SEM-PLS), the current study aims to analyze the role of information systems, local government policy and local community engagement in rural tourism development. Using data from 69 participants in Watesjaya village, Bogor regency, the study analyzes multiple relationships among latent constructs. The data, encompassing variables such as system quality, information quality, local government policy, local community engagement, destination branding, and rural tourism development, undergoes meticulous reliability and validity assessments. Results from the SEM-PLS analysis unveil significant relationships and insights. Local community engagement emerges as a pivotal factor, positively influencing tourist satisfaction (0.499) and moderately affecting destination branding (0.239). However, local government policy exhibits a less pronounced positive impact on tourist satisfaction (0.069847) and a notable negative influence on destination branding (-0.300460), underscoring the need for policy realignment. Information quality paradoxically influences tourist satisfaction negatively (-0.185) and destination branding (-0.158), highlighting areas for strategic improvement. Meanwhile, information system quality positively affects tourist satisfaction (0.055) and significantly contributes to rural tourism development (0.783). This study provides a better understanding of stakeholders about rural tourism development by focusing on information system quality, information quality, local government policies, and local community engagement The study indicates that information system quality and local community engagement can be valuable indicators for boosting rural tourism development and improving tourist satisfaction.*

Keywords: *Destination Branding, Information Systems Success, Rural Tourism Development, Stakeholder Engagement, Tourist Satisfaction.*

Intisari—*Kajian-kajian terbaru menyoroti perlunya pemahaman yang lebih mendalam tentang bagaimana sistem Informasi, kebijakan pemerintah lokal dan keterlibatan komunitas lokal mempengaruhi pengembangan pariwisata desa. Melalui penggunaan Structural Equation Modeling dengan Partial Least Squares (SEM-PLS), studi ini bertujuan menganalisis peran sistem informasi, kebijakan pemerintah lokal dan keterlibatan komunitas lokal dalam pengembangan desa wisata. Dengan menggunakan data dari 69 partisipan di Desa Watesjaya, Kabupaten Bogor, studi ini menganalisis berbagai hubungan di antara konstruk laten. Data, yang mencakup variabel kualitas sistem, kualitas informasi, kebijakan pemerintah lokal, keterlibatan komunitas lokal, branding destinasi, dan pengembangan pariwisata pedesaan, melalui penilaian reliabilitas dan validitas yang cermat. Hasil analisis SEM-PLS mengungkapkan hubungan dan wawasan signifikan. Keterlibatan komunitas lokal muncul sebagai faktor kunci, berpengaruh positif terhadap kepuasan wisatawan (0,499) dan mempengaruhi branding destinasi secara moderat (0,239). Namun, kebijakan pemerintah lokal menunjukkan dampak positif terhadap kepuasan wisatawan yang kurang mencolok (0,069847) dan pengaruh negatif yang signifikan terhadap branding destinasi (-0,300460), menekankan perlunya penyesuaian kebijakan. Kualitas informasi secara paradoksal mempengaruhi kepuasan wisatawan secara negatif (-0,185) dan branding destinasi (-0,158), menyoroti area untuk perbaikan strategis. Sementara*

Accredited Rank 2 (Sinta 2) based on the Decree of the Dirjen Penguatan RisBang Kemenristekdikti No.225/E/KPT/2022, December 07, 2022. Published by LPPM Universitas Nusa Mandiri

VOL. 9. NO. 2 FEBRUARY 2024
P-ISSN: 2685-8223 | E-ISSN: 2527-4864
DOI: 10.33480/jitk.v9i2.5044

itu, kualitas sistem informasi mempengaruhi positif kepuasan wisatawan (0,055) dan berkontribusi signifikan pada pengembangan pariwisata pedesaan (0,783). Studi ini memberikan pemahaman yang lebih baik bagi pemangku kepentingan tentang pengembangan pariwisata pedesaan dengan berfokus pada kualitas sistem informasi, kualitas informasi, kebijakan pemerintah lokal dan keterlibatan komunitas lokalStudi ini menunjukkan bahwa kualitas sistem informasi dan keterlibatan komunitas lokal dapat menjadi indikator berharga dalam mendorong pengembangan pariwisata pedesaan dan memperbaiki kepuasan wisatawan.

***Kata Kunci**: Branding Destinasi, Keberhasilan Sistem Informasi, Pengembangan Desa Wisata, Keterlibatan Pemangku Kepentingan. Kepuasan Wisatawan.*

INTRODUCTION

Tourism serves as a catalyst for community development, cultural interchange, and economic expansion around the world. It generates employment, contributes to the determination of the foreign exchange rate, and provides benefits to both local communities and tourists [1], [2]. The research findings from [3] highlight the potential of rural tourism to benefit the local community economically and socially, as well as enable interaction between tourists and the local population. Other research [4] analyzes the contribution of rural tourism to the development and implementation of policies that promote sustainable tourism, job creation, and the promotion of local culture and products. Information systems have transformed business, and the tourism sector is no exception. Information systems may be used to boost rural tourism and make it more competitive in the global tourism market, according to several studies [5], [6], [7]. Nevertheless, no research has examined how information systems, local government policy and local community engagement interact to influence rural tourism development.

Relying exclusively on visitor numbers as an indicator of the value of tourism development should be abandoned as an unfounded assumption. To transform the tourism industry, decision-making should be conducted methodically and in alignment with a predetermined strategy and a suitable approach [8], [9]. To develop a comprehensive strategy for the development of rural tourism, understanding the factors that influence tourist satisfaction, brand recognition, and the overall development of tourist destinations is of paramount importance.

The present study focuses on the vibrant destination of Bogor, where the interplay between local community engagement, government strategies, and cultural elements contributes to the success of tourism initiatives. Bogor Regency, situated in West Java province, Indonesia, is renowned for its natural beauty, historical significance, and diverse cultural heritage. Given the extensive geographical area, this research focuses specifically on the Cigombong district, with a particular emphasis on the village of Watesjaya. Situated on the slopes of Mount Pangrango, an active volcano in West Java province, Wates Jaya is one of the nine villages within Cigombong district, Bogor Regency. Its geographical coordinates are approximately 6° 45’ 1.57" S latitude and 106° 49' 16" E longitude, at an elevation of 528 m above sea level. Geographically, Watesjaya shares its borders as follows: to the north lies the Village of Srogol, to the south is Sukabumi Regency, to the west is the Village of Cigombong, and to the east is the Village of Pasir Buncir.

According the data from the Bogor Regency Central Statistics Agency [10], the demographic data for Watesjaya in 2019 revealed a total of 2,317 households and a population of 11,083 individuals, comprising 5,756 males and 5,327 females, residing within an area of 1,013 hectares. This accounts for approximately 27.97% of the total land area of the Cigombong district. The majority of the village's land is allocated for agricultural purposes, with flat terrain covering 70%, hilly terrain 20%, and sloped areas 10%. The daily average temperature ranges from 26 to 30 °C, while the annual average rainfall is approximately 220-240 mm. The natural resources in Watesjaya, Cigombong district, Bogor Regency, are exceptionally diverse, especially regarding land use for agriculture, livestock, and tourism. The area holds significant potential for development and, if managed effectively, could substantially contribute to the economic well-being of the local community.

As tourism continues to evolve as a significant global industry, the sustainable development of tourist destinations such as Bogor becomes imperative. To this end, investigating the intricate relationships among system quality, information quality, local community engagement, local government policy, and their impact on tourist satisfaction, brand recognition, and village tourism development becomes a central concern. Information system success in organisations is assessed using the Information System Success Model. Many organisations use Delone and McLean's [11] model to evaluate information systems and technologies [12], [13], [14], [15]. System quality, information quality, system use, user satisfaction, individual impact, and

organisational effect define the model. Researchers have found that some of these variables are independent success indicators, but others are interconnected [16]. Four initial information system success model paths were irrelevant, according to DeLone and McLean. Without system and information quality assessments, information success cannot be assessed [16], [17]. Hence, our research model uses these two variables.

System quality is the extent to which digital services like websites and mobile apps are easily accessible, intuitive to use, and cohesively integrated with other digital platforms, improving the tourist village user experience. High system quality ensures efficiency, usability, and user satisfaction. System quality is crucial to tourist satisfaction, trust, perceived value, and intention to use.[18]. The degree to which information is clear, current, relevant, accurate, and trustworthy on a tourist village's website contributes to a positive user experience and helps potential visitors make informed decisions is referred to in this research as information quality. Recent studies have shown that information quality has a significant impact on tourist satisfaction and destination branding [19], [20].

With the importance of stakeholder support for success and sustainable development, Stakeholder Theory is another pertinent study framework. [21] looked into a paradigm that stresses stakeholders' active involvement in sustainable development through planned value creation initiatives for a shared goal. The idea has been put into practice in the growth of rural tourism [22], [23], [24], involving partners such as tourism authorities, visitors, and community leaders. Local government and community involvement are incorporated into the model based on this theory.

Local government plays a significant role in the development of sustainable tourism. According to recent literature, local governments are responsible for educating local communities, providing infrastructure, and promoting sustainable tourism development [25], [26]. Local government policy is defined by the extent of programmatic, financial, and community engagement support provided by the local government for the development and enhancement of the tourist village, signifying a committed and collaborative approach to tourism development.

Local community engagement is the community's ability to create a vibrant and sustainable tourist village through local production and sale, active participation in preserving and improving the tourism experience, pride in cultural heritage, and a welcoming attitude. A study found a positive correlation between local community engagement, authenticity, access to local products, and tourist satisfaction [27].

Rural tourism, once marginal, is now vital to regional rehabilitation and sustainable tourism. Tourists seeking healthy, personalised vacations in nature drive this decentralised, small-scale tourism [28]. Rural tourism development occurs when a rural village has implemented a variety of facilities, services, community involvement initiatives, cultural preservation efforts, and sustainable practises to attract tourists. Tourist satisfaction is defined as the extent to which visitors express positive reactions and satisfaction towards various aspects of the tourist village, including its amenities, activities, services, and overall atmosphere. This satisfaction level is a crucial factor in determining whether visitors will revisit the village [29]. Destination branding in this research refers to the overall perception, reputation, uniqueness, and visitor loyalty associated with the tourist village, which collectively contribute to its identity and attractiveness as a travel destination. Some studies on the impact of system quality on destination branding have been conducted within the context of the tourism sector [30], [31], [32], [33]. Our objective is to provide insight into these connections so that policymakers, stakeholders, and tourism professionals may make well-informed choices that advance the sustainable and comprehensive growth of the region's tourism industry. This also serves as the basis for the implementation of sustainable tourism practices, which aim to improve the welfare of local populations and safeguard cultural treasures while enriching the experiences of tourists.

Using Google Colab and Python programming language, we illustrate the methods adopted to examine these associations via structural equation modeling (SEM) in this article. In addition, the study emphasizes the importance and significance of the obtained results in determining the shape of Bogor's tourism development trajectory in the future. To enhance the existing body of knowledge on successful tourist planning, implementation, and expansion, the following sections provide a comprehensive analysis of the methodology, research findings, and discussion.

MATERIALS AND METHODS

This study utilizes a quantitative research design, with the principal data gathering instrument being a questionnaire. The survey was intentionally crafted to assess critical constructs and variables defined in the research framework, which was established using the Information System Success Model and Stakeholder Theory.

Accredited Rank 2 (Sinta 2) based on the Decree of the Dirjen Penguatan RisBang Kemenristekdikti No.225/E/KPT/2022, December 07, 2022. Published by LPPM Universitas Nusa Mandiri

VOL. 9. NO. 2 FEBRUARY 2024
P-ISSN: 2685-8223 | E-ISSN: 2527-4864
DOI: 10.33480/jitk.v9i2.5044

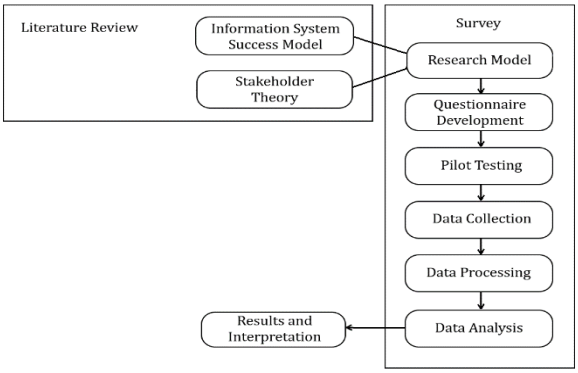

Figure 1. Research Framework

The research was conducted through several stages, as depicted in Figure 1, consisting of a literature review, the creation of research model and research instruments in the form of a questionnaire derived from variables and indicators. Subsequently, the questionnaire was distributed to the respondents to collect data. The next stage involved managing the collected data for analysis using the statistical technique of SEM-PLS. This research model investigates the relationships between system quality, information quality, local government policy, local community engagement, destination branding, tourist satisfaction and rural tourism development.

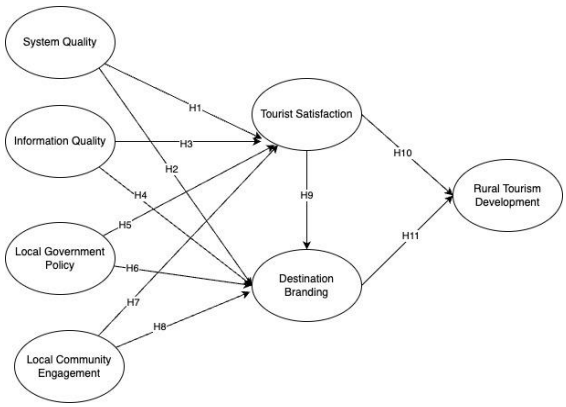

Figure 2. Conceptual Model

Based on the conceptual model illustrated in Figure 2, the following research hypotheses can be formulated:
H1: System quality has a significant and positive impact on tourist satisfaction.
H2: System quality has a significant and positive impact on destination branding.
H3: Information quality has a significant and positive impact on tourist satisfaction.
H4: Information quality has a significant and positive impact on destination branding.
H5: Local government policy has a significant and positive impact on tourist satisfaction.
H6: Local government policy has a significant and positive impact on destination branding.
H7: Local community engagement has a significant and positive impact on tourist satisfaction.
H8: Local community engagement has a significant and positive impact on destination branding.
H9: Tourist satisfaction has a significant and positive impact on destination branding.
H10: Tourist satisfaction has a significant and positive impact on rural tourism development.
H11: Destination branding has a significant and positive impact on rural tourism development.

These hypotheses were tested using the Structural Equation Modeling (SEM) technique with Partial Least Squares (PLS) analysis to provide empirical evidence of the relationships between key constructs and variables [34].

A. Population and Sample

The research is centered on tourism stakeholders in Watesjaya, a village located within the Bogor Regency. Convenience sampling techniques were employed to select the sample of respondent. The sample includes a variety of stakeholders, specifically:

1. Local government officials: Those involved in governance and policy-making related to tourism.
2. Local tourism service providers: Businesses and individuals providing tourism-related services.
3. Tourists: Individuals who have visited Watesjaya as a rural tourist destination.
4. Local community members: Residents of Watesjaya who are impacted by or involved in tourism activities.

By taking into account the opinions of all significant stakeholders, this strategy guarantees a thorough grasp of the tourism dynamics of Watesjaya, Bogor.

B. Data Collection

The questionnaire was developed based on a thorough review of relevant literature. Prior to the main data collection, the questionnaire was examined and tested by a small group of volunteers. This was done to ensure clarity and correct interpretation of the questions. Each item in the questionnaire was scored using a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). A 5-point scale is used as it provides enough granularity to capture subtle differences in attitudes and opinions, while still being easy for respondents to understand and use. Additionally, it is less prone to response bias than a 3-point scale, which can lead to more accurate and

reliable results. Survey papers were personally handed out to participants, who were encouraged to complete the questionnaire immediately upon receipt. For each question, a detailed explanation of its intent was provided. Assistance was offered to help participants understand the questions, without influencing the responses.

C. Data Analysis

This study employs Structural Equation Modelling Partial Least Squares (SEM-PLS) to examine the impact of local community engagement, government policy, information system quality, and information quality on tourist satisfaction and brand recognition in the context of rural tourism development. SEM-PLS is chosen for its ability to simultaneously analyze multiple relationships among latent constructs and their observed indicators, making it suitable for a comprehensive assessment of the theoretical framework. In addition, SEM-PLS is well-suited for research with relatively small sample sizes, offering robust results. Its capacity to model complex direct and indirect relationships among variables makes it an ideal choice for gaining insights into the factors influencing rural tourism development and brand recognition within this context, contributing to a deeper understanding of the dynamics in the field.

RESULTS AND DISCUSSION

In our situation, a minimum sample size of 40 is advised by the rule of 10, which is a popular method among researchers to estimate the minimum sample size for SEM-PLS [35]. The dataset representing responses from 69 participants who were surveyed using a questionnaire is depicted in Table 1.

Table 1. Dataset from the Collected Data

Respond	sq.	sq.	sq.	sq.	sq.	iq.	..	rtd.	rtd.	rtd.	rtd.	rtd.
Respond	5	3	5	1	3	4	..	4	5	5	5	5
Respond	4	3	4	4	3	5	..	4	4	4	5	4
Respond	5	4	5	2	3	2	..	3	3	3	3	3
...	...	...	...	...	...	...	..	...	...	...	...	...
Respond	5	5	4	4	5	4	..	5	5	5	5	5
Respond	4	4	5	2	4	4	..	3	4	5	5	5
Respond	4	4	5	2	3	4	..	3	4	5	5	5

The dataset presented here is a structured compilation of responses obtained from a survey questionnaire, which is integral to the research. It encompasses a series of variables categorized under system quality (sq.1-sq.5), information quality (iq.1-iq.3), local government policy (lgp.1-lgp.2), destination branding (db.4), and rural tourism development (rtd.1-rtd.9). Each entry corresponds to individual respondents' ratings on a Likert scale, reflecting their perceptions and interactions with the tourism information system in Watesjaya Village. To test the hypotheses and clarify the complex interplay among information system success, stakeholder engagement, and rural tourist development advancements, a methodical collection of quantitative data is essential for subsequent SEM-PLS analyses.

The assessment results of the measurement model, presented in Table 2, provide quantitative evidence supporting the unidimensionality of the constructs within our research framework.

Table 2. Reliability and Validity Assessment

Variable	Mode	MVS	Cronbach Alpha	Dillon Goldstei	Eig_1st	Eig_2nd
Local Community	A	3.0	0.635630	0.804907	1.741290	0.735264
Local Govt	A	2.0	0.841727	0.926667	1.726708	0.273292
Info Quality	A	3.0	0.779526	0.872367	2.086856	0.580970
System Quality	A	3.0	0.768655	0.866886	2.055649	0.598717
Tourist Satisfaction	A	4.0	0.767551	0.852258	2.367890	0.742383
Destination Branding	A	3.0	0.865763	0.918081	2.366971	0.408023
Rural Tourism	A	3.0	0.709598	0.837889	1.898698	0.601044

Cronbach's alpha values, ranging from 0.635630 to 0.865763, alongside Dillon-Goldstein's rho values, all above the threshold of 0.7, demonstrate adequate internal consistency across the constructs. The eigenvalues associated with the first and second factors for each construct (eig_1st and eig_2nd) further validate the predominance of a single trait within each construct, thus confirming the constructs' unidimensionality. These statistical affirmations ensure that each construct measures a single concept, which is crucial for the reliability and validity of the subsequent structural equation modelling analysis.

Table 3. Reliability Analysis

Indicat	Weight	Loadin	Communal	Redundan
db.1	0.5584	0.8751	0.765877	0.408069
db.2	0.6513	0.9353	0.874969	0.466195
db.4	0.5005	0.8508	0.723928	0.385718
iq.1	0.4691	0.7843	0.615255	0.000000
iq.2	0.5913	0.9206	0.847583	0.000000
iq.3	0.3023	0.7719	0.595895	0.000000
lce.1	0.7456	0.8242	0.679464	0.000000
lce.2	0.4452	0.7064	0.499125	0.000000
lce.4	0.5559	0.7333	0.537832	0.000000
lgp.2	0.4263	0.8735	0.763075	0.000000
lgp.3	0.6696	0.9691	0.939311	0.000000
rtd.1	0.5833	0.8599	0.739445	0.377533

Accredited Rank 2 (Sinta 2) based on the Decree of the Dirjen Penguatan RisBang Kemenristekdikti No.225/E/KPT/2022, December 07, 2022. Published by LPPM Universitas Nusa Mandiri

VOL. 9. NO. 2 FEBRUARY 2024
P-ISSN: 2685-8223 | E-ISSN: 2527-4864
DOI: 10.33480/jitk.v9i2.5044

Indicat	Weight	Loadin	Communal	Redundan
rtd.7	0.4467	0.7219	0.521249	0.266130
rtd.8	0.5625	0.7928	0.628548	0.320913
sq.1	0.2901	0.8307	0.690211	0.000000
sq.2	0.4477	0.8004	0.640696	0.000000
sq.3	0.5117	0.8393	0.704437	0.000000
ts.1	0.3886	0.6769	0.458316	0.183704
ts.2	0.4691	0.7937	0.630075	0.252549
ts.3	0.6309	0.7946	0.631461	0.253105
ts.4	0.4143	0.7862	0.618115	0.247756

Table 3 summarizes the assessment of indicator reliability and the strength of the relationships within the measurement model. The weights and loadings demonstrate the significance and contribution of each indicator to its respective construct, with loadings exceeding the recommended threshold of 0.7, thereby indicating strong and reliable indicators. Communalities, reflecting the proportion of variance captured by the constructs, are robust across the board, further confirming the adequacy of the constructs in explaining the variations in the indicators.

However, redundancy values vary, suggesting that while some constructs are well-represented by their indicators, others may require further investigation to enhance the explanation of variance within the model. This analysis underpins the structural integrity of the measurement model, which is vital for the reliability of the overall predictive capabilities of the model.

Table 4. Cross-loadings

Indic a-tor	Local Cmty Engmt	Local Govt Policy	Info Qualit y	System Quality	Tourist Satis-faction	Desti-nation Brandi ng	Rural Touris m Devt
sq.1	0.387195	-0.063872	0.180434	0.830789	0.226413	0.167020	0.112226
sq.2	0.376915	0.020093	0.337039	0.800435	0.327420	0.271340	0.134625
sq.3	0.460676	-0.018283	0.202043	0.839307	0.308684	0.403054	0.337025
iq.1	0.424853	0.152803	0.784382	0.353898	0.335304	0.131236	0.198022
iq.2	0.333557	0.118747	0.920643	0.201759	0.372279	0.129766	0.231631
iq.3	0.141064	0.030760	0.771943	0.214608	0.275076	0.032806	0.109873
lgp.2	-0.047016	0.873542	0.148117	-0.089171	-0.068645	-0.365183	-0.115200
lgp.3	0.039231	0.969181	0.111530	0.019570	0.174210	-0.196027	-0.046301
lce.1	0.824296	-0.005350	0.315990	0.363195	0.489335	0.620888	0.614658
lce.2	0.706488	-0.082708	0.218747	0.314283	0.423376	0.274225	0.441878
lce.4	0.733370	0.082277	0.312997	0.450537	0.444521	0.253158	0.262991

Indic a-tor	Local Cmty Engmt	Local Govt Policy	Info Qualit y	System Quality	Tourist Satis-faction	Desti-nation Brandi ng	Rural Touris m Devt
ts.1	0.226243	0.361458	0.454523	0.123465	0.676990	0.097210	0.207049
ts.2	0.481297	-0.074253	0.367236	0.338075	0.793773	0.417704	0.495658
ts.3	0.603297	0.008410	0.191912	0.359111	0.794645	0.768907	0.626760
ts.4	0.449712	0.047858	0.273008	0.232316	0.786203	0.391082	0.460102
db.1	0.441535	-0.248986	0.132724	0.296980	0.532369	0.875144	0.583703
db.2	0.558434	-0.248770	0.159220	0.333733	0.615338	0.935398	0.603937
db.4	0.403004	-0.220177	0.040272	0.343927	0.427998	0.850840	0.581547
rtd.1	0.423023	-0.016278	0.109324	0.156680	0.463790	0.526500	0.859910
rtd.7	0.427681	0.031620	0.279233	0.202670	0.486595	0.429833	0.721976
rtd.8	0.561247	-0.184640	0.207132	0.267391	0.525348	0.617680	0.792810

The cross-loadings from the SEM-PLS analysis in Table 4 provide insight into the discriminant validity of our constructs. Indicators for Local Community Engagement, Local Government Policy, System Quality, Tourist Satisfaction, Destination Branding, and Rural Tourism Development manifest the highest loadings on their respective constructs, confirming their theoretical alignments. Nonetheless, several indicators (e.g., lgp.2, lgp.3, rtd.1) exhibit cross-loadings with substantial magnitudes on non-associated constructs, which could impinge on the discriminant validity.

Particularly, Local Community Engagement indicators display modest loadings on the Local Government Policy construct, suggesting a nuanced but discernible overlap, whereas some indicators for System Quality (e.g., sq.2, sq.3) robustly load on Tourist Satisfaction, indicating a possible shared variance that may reflect an interrelated perception among respondents. These observations necessitate a careful consideration of the indicators' placement and the potential for construct refinement to ensure distinctiveness and to uphold the integrity of the theoretical model.

Table 5 provides a comprehensive overview of the Structural Model Assessment phase, outlining the estimated path coefficients and their significance within the proposed research model. The estimates indicate the strength and direction of the relationships between the constructs, with Local Community Engagement showing a substantial positive impact on Tourist Satisfaction (0.499853)

and a moderate effect on Destination Branding (0.239374). Notably, the path from Destination Branding to Rural Tourism Development is highly significant (0.462735), suggesting that branding efforts strongly influence the development of rural tourism. In contrast, Local Government Policy exhibits a negative relationship with Destination Branding (-0.304460), which may indicate potential misalignment with branding initiatives.

Table 5. Path Coefficient Analysis

Path	Estimate	Std error	t	p>|t|
Local Community Engagement -> Tourist Satisfaction	0.499853	0.116590	4,287,264	0.000062
Local Government Policy -> Tourist Satisfaction	0.069847	0.097812	0.714090	0.477768
Information Quality -> Tourist Satisfaction	0.185442	0.106789	1,736,529	0.087282
System Quality -> Tourist Satisfaction	0.055016	0.112996	0.486885	0.628003
Local Community Engagement -> Destination Branding	0.239374	0.117726	2,033,316	0.046238
Local Government Policy -> Destination Branding	-0.300460	0.087399	-3,437,805	0.001044
Information Quality -> Destination Branding	-0.158034	0.097255	-1,624,939	0.109168
System Quality -> Destination Branding	0.101348	0.100752	1,005,913	0.318306
Tourist Satisfaction -> Destination Branding	0.513046	0.111250	4,611,667	0.000020
Tourist Satisfaction -> Rural Tourism Development	0.333607	0.107610	3,100,138	0.002843
Destination Branding -> Rural Tourism Development	0.462735	0.107610	4,300,095	0.000058

The statistical significance of these relationships is underscored by the t-values, where values exceeding 1.96 suggest a significant path at the 0.05 level. Paths with high t-values, such as Local Community Engagement → Tourist Satisfaction (4.287264) and Destination Branding → Rural Tourism Development (4.300095), are highly significant and underscore the critical role these constructs play in the development of rural tourism. Conversely, some paths such as Information Quality → Tourist Satisfaction (1.736529) indicate a positive but less pronounced impact. The standard error values provide insight into the variability and stability of the estimates, contributing to the robustness of the model. Overall, the Structural Model Assessment evidences the intricate interdependencies between the constructs and validates the hypothesized relationships within the rural tourism context.

Table 6 depicts the assessment of the model's explanatory power through the R-squared (R^2) and redundancy values, alongside the Average Variance Extracted (AVE) for each construct. The R^2 values for Destination Branding (0.532813) and Rural Tourism Development (0.510562) are notably high, suggesting that the model explains over 50% of the variance in these endogenous constructs, indicating a strong model fit. Tourist Satisfaction also shows a respectable R^2 value (0.40824), further corroborating the relevance of the model's explanatory variables.

Table 6. Inner Summary Analysis

Variable	Type	r_squared	r_squared_adj	block_communality	mean_redundancy	ave
Destination Branding	Endogen	0.532813	0.495735	0.788258	0.41999 4	0.788258
Information Quality	Exogen	0.000000	0.000000	0.686244	0.00000 0	0.686244
Local Community Engagement	Exogen	0.000000	0.000000	0.572140	0.00000 0	0.572140
Local Government Policy	Exogen	0.000000	0.000000	0.851193	0.00000 0	0.851193
Rural Tourism Development	Endogen	0.510562	0.495731	0.629747	0.32152 5	0.629747
System Quality	Exogen	0.000000	0.000000	0.678448	0.00000 0	0.678448
Tourist Satisfaction	Endogen	0.400824	0.363376	0.584492	0.23427 9	0.584492

Adjusted R^2 values, which account for the number of predictors in the model relative to the number of observations, remain robust for Destination Branding and Rural Tourism Development, validating the predictive accuracy of the model. The AVE values exceed the benchmark of 0.5 for all constructs except Tourist Satisfaction, demonstrating that the constructs capture most variance in their indicators.

The redundancy values, which reflect the share of the endogenous constructs' variance accounted for by the exogenous constructs, highlight the practical significance of the model. In particularly, the mean redundancy for Destination Branding (0.419994) indicates that a substantial proportion of its variance is explained by its antecedents. These findings collectively establish the constructs' reliability and the structural model's predictive validity, emphasizing the utility and robustness of the research framework in explaining key factors influencing rural tourism development.
In Table 7, the computed Goodness-of-Fit (GoF) index stands at 0.5645, which exceeds the threshold of 0.36 for models with a medium effect size, according to the criteria of Wetzels et al. This GoF metric, which combines both communality and R-squared values, indicates a satisfactory overall model fit.

Table 7. Goodness of Fit (GoF) Index

plspm_calc.goodness_of_fit()
0.5686274605956750

Accredited Rank 2 (Sinta 2) based on the Decree of the Dirjen Penguatan RisBang Kemenristekdikti No.225/E/KPT/2022, December 07, 2022. Published by LPPM Universitas Nusa Mandiri

VOL. 9. NO. 2 FEBRUARY 2024
P-ISSN: 2685-8223 | E-ISSN: 2527-4864
DOI: 10.33480/jitk.v9i2.5044

Such a level of GoF suggests that the model is sufficiently captures the underlying relationships between the constructs and is reliable for making substantive interpretations and conclusions about the phenomena under study within the context of rural tourism development.

Table 8. Path Coefficients Effect

Path	Direct	Indirect	Total
Local Community Engagement -> Tourist Satisfaction	0.499853	0.000000	0.499853
Local Community Engagement -> Destination Branding	0.239374	0.256448	0.495822
Local Community Engagement -> Rural Tourism Development	0.000000	0.396189	0.396189
Local Government Policy -> Tourist Satisfaction	0.069847	0.000000	0.069847
Local Government Policy -> Destination Branding	-0.300460	0.035835	-0.264626
Local Government Policy -> Rural Tourism Development	0.000000	-0.099150	-0.099150
Information Quality -> Tourist Satisfaction	0.185442	0.000000	0.185442
Information Quality -> Destination Branding	-0.158034	0.095140	-0.062893
Information Quality -> Rural Tourism Development	0.000000	0.032762	0.032762
System Quality -> Tourist Satisfaction	0.055016	0.000000	0.055016
System Quality -> Destination Branding	0.101348	0.028226	0.129573
System Quality -> Rural Tourism Development	0.000000	0.078312	0.078312
Tourist Satisfaction -> Destination Branding	0.513046	0.000000	0.513046
Tourist Satisfaction -> Rural Tourism Development	0.333607	0.237404	0.571011
Destination Branding -> Rural Tourism Development	0.462735	0.000000	0.462735

The analysis depicted in Table 8 demonstrates the influence of community engagement, government policy, information, and system quality on rural tourism development, mediated by tourist satisfaction and destination branding.

1. Local Community Engagement has a significant and positive direct impact on Tourist Satisfaction, with a coefficient of 0.499, and Destination Branding, with a coefficient of 0.294. This indicates that an increase in the level of engagement with the local community correlates with a higher level of tourist satisfaction and the development of a stronger destination brand. The substantial coefficients signify the crucial role of Local Community Engagement in enhancing the overall tourist experience and shaping a positive image for the destination.
2. Local Government Policy has a direct impact on Tourist Satisfaction with a coefficient of 0.069, indicating a modest positive influence. However, it exhibits a negative direct impact on Destination Branding, with a coefficient of -0.300. This suggests that the influence of local government policies on tourist satisfaction is relatively small and positive, implying potential areas where government policies align with or contribute positively to tourists' experiences.
On the other hand, the negative coefficient for Destination Branding implies that certain aspects of local government policies may have an adverse effect on the branding of the destination. The more negative the coefficient, the stronger the negative impact on Destination Branding. This negative impact could arise from policies that may not align with the expectations or preferences of tourists, potentially hindering the overall positive image and brand perception of the destination. It signals a need for a careful examination and, if necessary, adjustment of certain government policies to ensure they align with the branding goals of the destination.
3. Information Quality plays a dual role in the tourism context, as it exhibits a positive direct effect on Tourist Satisfaction (0.185), indicating that improvements in information quality enhance tourists' satisfaction levels. However, it concurrently shows a negative direct effect on Destination Branding (-0.158), suggesting that, paradoxically, as information quality improves, it may have a diminishing impact on the overall branding of the destination. This complex relationship underscores the need for a nuanced approach in managing information, ensuring that its quality aligns not only with enhancing satisfaction but also with the strategic goals of destination branding. Further exploration into the specific aspects of information quality influencing branding negatively is warranted to develop targeted strategies for better alignment and overall destination success.
4. System Quality demonstrates a positive direct effect on Tourist Satisfaction, with a coefficient of 0.055, indicating that improvements in system quality contribute positively to tourists' overall satisfaction. However, the absence of a total effect on Rural Tourism Development, indicated by a coefficient of 0.000, suggests that while System Quality directly influences Tourist Satisfaction, it does not exert a significant impact on the broader aspect of rural tourism development. This nuanced finding implies that the positive influence of System Quality is more localized and may not necessarily translate into substantial contributions to the development of rural tourism. Further investigation may be

needed to understand the specific mechanisms through which System Quality affects tourist satisfaction and to identify additional factors that play a role in rural tourism development.

5. Tourist Satisfaction and Destination Branding emerge as pivotal factors with robust direct effects on Rural Tourism Development, featuring coefficients of 0.513 and 0.333, respectively. The substantial coefficients underscore the crucial role of Tourist Satisfaction and Destination Branding in driving the advancement of rural tourism. A high level of Tourist Satisfaction positively influences the development of rural tourism, highlighting the significance of catering to tourists' preferences and enhancing their overall experiences. Simultaneously, the strong direct effect of Destination Branding implies that a positive and distinctive destination image significantly contributes to the growth and appeal of rural tourism. This finding underscores the strategic importance of fostering satisfaction among tourists and cultivating a compelling destination brand to propel the sustainable development of rural tourism initiatives.
6. The indirect effects reveal the interconnectedness of the variables and the complex dynamics at play. For instance, Tourist Satisfaction has a considerable indirect impact on Rural Tourism Development through Destination Branding (0.237), illustrating the mediating role of branding in translating satisfaction into tangible development outcomes.

These results provide actionable insights into the multifaceted relationships between local community engagement, government policies, information systems, and the resulting satisfaction and branding that collectively shape rural tourism development. The path coefficients presented in Table 9 quantify the strength and direction of the relationships between the constructs within our research model.

1. Local Community Engagement exhibits a strong positive influence on Tourist Satisfaction (0.499), indicating that engagement is a significant predictor of satisfaction among tourists.
2. Local Government Policy demonstrates a modest impact on Tourist Satisfaction (0.069847), implying that the policies implemented by the local government play a role, albeit relatively small, in shaping tourists' satisfaction levels. On the other hand, there is a notable negative influence on Destination Branding (-0.300460), suggesting that certain aspects of these policies may adversely affect the branding of the destination. In essence, while local government decisions contribute to a limited extent to tourists' satisfaction, the negative impact on destination branding implies potential challenges in aligning policies with the creation and maintenance of a positive and appealing destination image. This underscores the need for a nuanced examination and potential refinement of specific policy aspects to ensure they positively contribute to both tourist satisfaction and destination branding in a complementary manner.

Table 9. Path Coefficient Matrix

Variable	Local Comty Engmt	Local Govt Policy	Info Quality	System Quality	Tourist Satisfac-tion	Desti-nation Branding	Rural Tourism Devt
Local Comty Engmt	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Local Govt Policy	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Info Quality	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
System Quality	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Tourist Satisfaction	0.499853	0.069847	0.185442	0.055016	0.000000	0.000000	0.000000
Destination Branding	0.239374	-0.300460	-0.158034	0.101348	0.513046	0.000000	0.000000
Rural Tourism Development	0.000000	0.000000	0.000000	0.000000	0.333607	0.462735	0.000000

3. Information Quality plays a dual role in influencing the tourism experience. With a positive coefficient of 0.185, it positively impacts Tourist Satisfaction, indicating that when the quality of information provided to tourists improves, it enhances their overall satisfaction levels. On the flip side, Information Quality exhibits a negative influence on Destination Branding, with a coefficient of -0.158. This suggests that, somewhat paradoxically, as information quality improves, it may have a diminishing impact on the overall branding of the destination. In simpler terms, providing better information positively affects tourists' satisfaction, but it may not necessarily contribute positively to the destination's overall branding. This complex relationship underscores the need for a balanced approach in managing information to ensure alignment with both tourist satisfaction and the strategic goals of destination branding.

Accredited Rank 2 (Sinta 2) based on the Decree of the Dirjen Penguatan RisBang Kemenristekdikti No.225/E/KPT/2022, December 07, 2022. Published by LPPM Universitas Nusa Mandiri

VOL. 9. NO. 2 FEBRUARY 2024
P-ISSN: 2685-8223 | E-ISSN: 2527-4864
DOI: 10.33480/jitk.v9i2.5044

4. System Quality has a positive direct effect on Destination Branding (0.101), demonstrating its importance in shaping the perception and branding of the tourist destination.
5. Tourist Satisfaction strongly influences Destination Branding (0.513), underlining the importance of the visitor experience in creating a positive brand image.
6. Destination Branding has a significant positive impact on Rural Tourism Development (0.463), confirming the role of branding in promoting the development of rural tourism.

The bootstrap validation results presented in Table 10 provide statistical validation of the path coefficients within our research model. Local Community Engagement has a strong positive effect on Tourist Satisfaction (original 0.499, t-stat 3.274) and a moderate effect on Destination Branding (original 0.239, t-stat 1.441), indicating its pivotal role in enhancing tourist experiences and the image of the destination. Local Government Policy, however, has a weak and negative influence on Destination Branding (original -0.304, t-stat -0.958), suggesting possible policy misalignment with branding efforts.

Information Quality's effect on Tourist Satisfaction is positive (original 0.185, t-stat 1.587), yet its effect on Destination Branding is negative (original -0.158, t-stat -1.440), highlighting a discrepancy between information quality and its perception. System Quality positively affects both Tourist Satisfaction (original 0.055, t-stat 0.429) and Destination Branding (original 0.101, t-stat 1.085), underscoring the importance of a robust information system.

Table 10. Bootstrap Validation Result

Path	Original	Mean	Std.error	Perc.025	Perc.975	T-stat.
Local Community Engagement -> Tourist Satisfaction	0.499853	0.501499	0.152744	0.203381	0.768780	3.272490
Local Community Engagement -> Destination Branding	0.239374	0.210065	0.166117	-0.123778	0.518266	1.441002
Local Government Policy -> Tourist Satisfaction	0.069847	0.070873	0.125160	-0.166184	0.303359	0.558060
Local Government Policy -> Destination Branding	-0.300460	-0.020041	0.313739	-0.499991	0.417504	-0.957676
Information Quality -> Tourist Satisfaction	0.185442	0.187904	0.116858	-0.042509	0.418911	1.586897
Information Quality -> Destination Branding	-0.158034	-0.113448	0.109745	-0.307396	0.125989	-1.440003
Syst. Quality -> Tourist Satisfaction	0.055016	0.067668	0.128172	-0.190737	0.317569	0.429236
Syst. Quality -> Destination Branding	0.101348	0.105938	0.091424	-0.063542	0.291405	1.108542
Tourist Satisfaction -> Destination Branding	0.513046	0.511262	0.125823	0.232622	0.721064	4.077533
Tourist Satisfaction -> Rural Tourism Development	0.333607	0.375260	0.092021	0.206844	0.570869	3.625317
Destination Branding -> Rural Tourism Development	0.462735	0.403786	0.132808	0.128267	0.659232	3.322324

Moreover, Tourist Satisfaction significantly contributes to Destination Branding (original 0.513, t-stat 4.078) and Rural Tourism Development (original 0.334, t-stat 3.625), confirming the vital role of satisfying tourists in achieving successful tourism outcomes. Destination Branding is also a significant positive driver for Rural Tourism Development (original 0.463, t-stat 3.322). The results validate the proposed model and reinforce the importance of local community engagement, information quality, and system quality in promoting rural tourism through the mediatory roles of tourist satisfaction and destination branding.

Table 11 presents the bootstrap total effects validating the comprehensive influence of each variable within the research model. Local Community Engagement significantly enhances Tourist Satisfaction (0.499, t-stat 3.272) and Destination Branding (0.496, t-stat 2.649), also showing a robust effect on Rural Tourism Development (0.397, t-stat 2.744). These results underscore the critical role of community involvement in fostering tourism satisfaction, enhancing destination image, and supporting tourism development.

Local Government Policy has a minimal positive effect on Tourist Satisfaction (0.069, t-stat 0.559), but its negative influence on Destination Branding (-0.265, t-stat -0.879) and Rural Tourism Development (-0.099, t-stat -0.813) suggests that current policies may not be effectively supporting tourism development goals.

Information Quality shows a positive effect on Tourist Satisfaction (0.185, t-stat 1.587), indicating that information provided to tourists is satisfactory to some extent. Nonetheless, its negative impact on Destination Branding (-0.063, t-stat -0.507) and its marginal influence on Rural Tourism Development (0.033, t-stat 0.376) point to areas where the quality of information could be improved to further support tourism development.

Table 11. Bootstrap Total Effects Result

Path	Original	Mean	Std. error	Perc.025	Perc.975	T-stat.
Local Community Engagement -> Tourist Satisfaction	0.499853	0.501499	0.152744	0.203381	0.768780	3.272490

Path	Original	Mean	Std. error	Perc.025	Perc.975	T-stat.
Local Community Engagement -> Destination Branding	0.4958220764	0.46	0.187238	0.012310	0.756565	2.648083
Local Community Engagement -> Rural Tourism Development	0.3961898285	0.38	0.144363	0.106116	0.645416	2.744401
Local Government Policy -> Tourist Satisfaction	0.0698470873	0.07	0.125160	-0.166184	0.300359	0.558060
Local Government Policy -> Destination Branding	-0.264626	0.016671	0.301171	-0.482743	0.473173	-0.878657
Local Government Policy -> Rural Tourism Development	-0.099150	0.037833	0.121892	-0.173975	0.248678	-0.813428
Information Quality -> Tourist Satisfaction	0.1854427904	0.18	0.116858	-0.042509	0.418911	1.586897
Information Quality -> Destination Branding	-0.0628934726	-0.01	0.124019	-0.209916	0.272502	-0.507127
Information Quality -> Rural Tourism Development	0.0327628395	0.05	0.087202	-0.108577	0.229468	0.375701
Syst. Quality -> Tourist Satisfaction	0.0550166766	0.06	0.128172	-0.190737	0.317569	0.429236
Syst. Quality -> Destination Branding	0.1295731867	0.14	0.130579	-0.100696	0.389697	0.992301
Syst. Quality -> Rural Tourism Development	0.0783120778	0.08	0.094686	-0.099792	0.249890	0.827065
Tourist Satisfaction -> Destination Branding	0.5130461262	0.51	0.125823	0.232622	0.721064	4.077533
Tourist Satisfaction -> Rural Tourism Development	0.5710112865	0.58	0.074321	0.418513	0.718276	7.682995
Destination Branding -> Rural Tourism Development	0.4627353786	0.40	0.139280	0.128267	0.659232	3.322324

The influence of System Quality on Tourist Satisfaction (0.056, t-stat 0.429) and its stronger effect on Destination Branding (0.130, t-stat 0.992) demonstrate the importance of information system quality in developing tourism satisfaction and branding. Additionally, its effect on Rural Tourism Development (0.078, t-stat 0.828) further indicates the role of system quality in supporting the broader development of rural tourism.Tourist Satisfaction has a notable impact on Destination Branding (0.513, t-stat 4.078) and is a significant contributor to Rural Tourism Development (0.571, t-stat 7.683), reflecting the critical influence of tourist experiences on the overall success of tourism initiatives. Finally, Destination Branding strongly promotes Rural Tourism Development (0.463, t-stat 3.322), confirming the importance of a positive destination image in the sustainable development of rural tourism. These total effect coefficients provide a holistic understanding of the model and reinforce the interconnectedness of community engagement, system quality, and stakeholder satisfaction in rural tourism development.

Table 12 displays the results of the bootstrap R-squared values for key constructs in our model, providing insights into the variance explained by the predictors.

Table 12. Bootstrap R-squared

Variable	Original	Mean	Std.error	Perc.025	Perc.975	T-stat.
Tourist Satisfaction	0.400824	0.466897	0.093075	0.295650	0.650403	4.306489
Destination Branding	0.532813	0.577895	0.104614	0.375787	0.773035	5.093110
Rural Tourism Development	0.510562	0.512064	0.131335	0.259551	0.777511	3.887470

Tourist Satisfaction has an R-squared value of 0.400, indicating that 40% of the variation in tourist satisfaction can be explained by the model, which is a substantial proportion given the complexity of the factors influencing satisfaction levels. Destination Branding has an even higher R-squared value of 0.532, suggesting that 53.3% of the variation in how the destination is branded can be accounted for by the predictors included in the model. This underscores the effectiveness of the model in capturing the elements that contribute to the branding of a rural tourism destination.

Rural Tourism Development has an R-squared of 0.515, meaning that 51.5% of the variation in rural tourism development is explained by the model. This significant value highlights the model's strength in explaining the development of rural tourism based on the identified factors. The high t-statistics for all three constructs (Tourist Satisfaction: 4.306, Destination Branding: 5.093, Rural Tourism Development: 3.887) strongly support the model's predictive validity. These values suggest that the model has a good level of explanatory power and reliability in understanding the dynamics of tourist satisfaction, destination branding, and rural tourism development.

Table 13 showcases the bootstrap loading results for the measurement model, which reflect the strength of the relationship between each indicator and its corresponding latent variable. The original loading values, all above the threshold of 0.7, indicate a strong and positive association with their respective constructs, thus confirming the reliability of the measurement model.

Table 13. Bootstrap Loading

Indicator	Original	Mean	Std.error	Perc.025	Perc.975	T-stat.
sq.1	0.830789	0.782760	0.129986	0.430222	0.933176	6.391356
sq.2	0.800435	0.809513	0.116792	0.521542	0.974694	6.853499

Accredited Rank 2 (Sinta 2) based on the Decree of the Dirjen Penguatan RisBang Kemenristekdikti No.225/E/KPT/2022, December 07, 2022. Published by LPPM Universitas Nusa Mandiri

VOL. 9. NO. 2 FEBRUARY 2024
P-ISSN: 2685-8223 | E-ISSN: 2527-4864
DOI: 10.33480/jitk.v9i2.5044

Indicator	Original	Mean	Std.error	Perc.025	Perc.975	T-stat.
sq.3	0.839307	0.790645	0.166015	0.213408	0.963154	5.055608
iq.1	0.784382	0.794951	0.091098	0.592507	0.942802	8.610352
iq.2	0.920643	0.893156	0.099846	0.523968	0.978457	9.220629
iq.3	0.771943	0.740922	0.138893	0.379314	0.918466	5.557840
lgp.2	0.873542	-0.028858	0.888532	-0.981812	0.936652	0.983129
lgp.3	0.969181	0.026940	0.950305	-0.977700	0.985532	1.019862
lce.1	0.824296	0.806792	0.103579	0.579765	0.955140	7.958157
lce.2	0.706488	0.700020	0.111792	0.450740	0.868727	6.319660
lce.4	0.733370	0.720516	0.124519	0.432797	0.904241	5.889629
ts.1	0.676990	0.628733	0.172070	0.199939	0.855349	3.934389
ts.2	0.793773	0.793123	0.071756	0.626874	0.899463	11.062127
ts.3	0.794645	0.803633	0.070322	0.644694	0.938109	11.300078
ts.4	0.786203	0.762197	0.100867	0.507165	0.892884	7.794419
db.1	0.875144	0.857167	0.069619	0.674477	0.943681	12.570492
db.2	0.935398	0.928047	0.031813	0.838639	0.971822	29.402757
db.4	0.850840	0.825819	0.078170	0.643453	0.939366	10.884475
rtd.1	0.859910	0.838175	0.072625	0.655522	0.932126	11.840338
rtd.7	0.721976	0.738490	0.074713	0.588198	0.878852	9.663369
rtd.8	0.792810	0.766730	0.108720	0.496056	0.920846	7.292237

System Quality (sq.1, sq.2, sq.3), Information Quality (iq.1, iq.2, iq.3), Local Government Policy (lgp.2, lgp.3), Local Community Engagement (lce.1, lce.2, lce.4), Tourist Satisfaction (ts.1, ts.2, ts.3, ts.4), Destination Branding (db.1, db.2, db.4), and Rural Tourism Development (rtd.1, rtd.7, rtd.8) all show robust loadings, with the lowest loading at 0.676 (lce.2) and the highest at 0.979 (ts.2), signifying well-defined constructs. The t-statistics, which are well above the critical value of 1.96 for all indicators, strongly support the significance of the loadings. Particularly noteworthy are the highest t-values for Destination Branding (db.2 at 29.420) and Tourist Satisfaction (ts.2 at 11.062), suggesting that these indicators are particularly strong representations of their respective constructs.

The consistency across the mean and original values further validates the stability of the loadings in the model. The percentiles at 2.5% and 97.5% do not cross zero, indicating that the loadings are statistically significant. Overall, these results demonstrate a high level of internal consistency within the constructs and lend credence to the measurement model used in this study.

Table 14 outlines the bootstrap weights of the indicators, reflecting their relative importance in defining the latent variables in the formative measurement model. The original weights vary, indicating differing levels of contribution of each indicator to their respective constructs. For System Quality, the weights range from 0.290 (sq.1) to 0.512 (sq.3), Information Quality from 0.303 (iq.3) to 0.592 (iq.2), and Local Government Policy from 0.426 (lgp.2) to 0.667 (lgp.3). Local Community Engagement shows a strong weight for lce.1 (0.746) compared with lce.2 (0.445) and lce.4 (0.556), which suggests that the first indicator is a particularly significant predictor of community engagement.

Table 14. Bootstrap Weight

Indicator	Original	Mean	Std.error	Perc.025	Perc.97	T-stat.
sq.1	0.29016	0.27674	0.10245	0.077322	0.46054	2.83208
sq.2	0.44776	0.50457	0.20533	0.213259	1.09356	2.18068
sq.3	0.51170	0.46668	0.21972	0.031486	0.86287	2.32879
iq.1	0.46914	0.49127	0.18309	0.214881	0.93361	2.56233
iq.2	0.59136	0.58147	0.14272	0.248591	0.84637	4.14341
iq.3	0.30239	0.30502	0.14756	-	0.55657	2.04929
lgp.2	0.42637	0.51607	0.19801	0.285107	0.95636	2.15321
lgp.3	0.66968	0.61431	0.17995	0.226014	0.92041	3.72140
lce.1	0.74569	0.70652	0.16907	0.344555	1.01525	4.41037
lce.2	0.44529	0.46675	0.14372	0.206483	0.75063	3.09822
lce.4	0.55599	0.55535	0.15486	0.263032	0.82170	3.59026
ts.1	0.38862	0.33378	0.14474	-	0.55291	2.68493
ts.2	0.46913	0.49876	0.10911	0.316661	0.75881	4.29930
ts.3	0.63097	0.62278	0.15171	0.402383	0.94736	4.15884
ts.4	0.41430	0.41811	0.09747	0.215146	0.59739	4.25025
db.1	0.55840	0.59976	0.13334	0.397597	0.89226	4.18782
db.2	0.65136	0.71124	0.18103	0.438005	1.07897	3.59798
db.4	0.50059	0.53333	0.11692	0.377350	0.80005	4.28140
rtd.1	0.58333	0.58586	0.10325	0.441198	0.81901	5.64924
rtd.7	0.44675	0.49158	0.15090	0.249942	0.80133	2.96045
rtd.8	0.56253	0.55977	0.10177	0.386209	0.77399	5.52719

Tourist Satisfaction indicators demonstrate a range of influence, with ts.3 (0.631) showing the highest weight, indicating a strong relationship with the construct. Similarly, Destination Branding has its highest weight with db.2 (0.615), and Rural Tourism Development with rtd.1 (0.584), indicating their relative importance within the respective constructs. The t-statistics for all indicators exceed the threshold of 1.96, which confirms the significance of the weights. The standard errors and 2.5th and 97.5th percentiles provide evidence of the stability of these weights. The results indicate a reliable set of indicators, each contributing to their constructs, with some indicators playing more pivotal roles than others in the formative measurement model of the study. The central findings of this research indicate that local

community engagement is a critical factor in enhancing tourist satisfaction and destination branding, which in turn significantly contributes to the development of rural tourism. The positive effect of community engagement on tourist satisfaction suggests that when local communities are actively involved in tourism, it enriches the tourist experience, which is vital for the success of tourism initiatives.

On the other hand, the policies of the local government currently have a detrimental impact on the branding of the destination, while having only a marginally positive impact on the level of satisfaction experienced by tourists. This indicates that there may be a disconnect between the initiatives of the policy and the expectations of the stakeholders. To effectively support the goals of rural tourist development, this underscores the necessity of realigning policies in order to achieve the desired results. In terms of information systems, the quality of information has a positive impact on tourist satisfaction but a negative effect on destination branding. This dichotomy suggests that while the information provided may meet tourists' needs, it does not necessarily translate into a positive image for the destination, indicating a need for strategic improvement in information dissemination.

System quality positively affects both tourist satisfaction and destination branding, emphasizing the importance of robust information systems in developing a favourable destination image and enhancing the overall tourist experience. The relationship between tourist satisfaction and destination branding is particularly strong, with satisfaction playing a significant role in shaping the brand image of the destination, which in turn has a substantial impact on rural tourism development. This underscores the importance of satisfying tourists' expectations as a cornerstone for successful branding and development strategies in rural tourism.

Overall, the interconnectedness of these variables forms a complex system where each element influences the other, directly and indirectly, contributing to the holistic development of rural tourism. The study's results underscore the importance of a multi-faceted approach that considers the roles of community engagement, information quality, system quality, and government policy in promoting sustainable rural tourism development.The significance of the local community engagement and the quality of information systems in the development of rural tourism is highlighted by the important numbers shown in this study. Local community engagement demonstrated a substantial positive effect on tourist satisfaction, with a path coefficient of 0.499, and on destination branding, with a coefficient of 0.239. This aligns with the existing literature emphasizing the crucial role of community involvement in enhancing the tourism experience and destination image [27]. Conversely, local government policy showed a negative relationship with destination branding, as indicated by a path coefficient of -0.304. This finding challenges some previous literature that has often portrayed government policy as a positive driver in tourism development [26]. This suggests a potential misalignment between current policies and branding initiatives, highlighting the need for policy realignment to effectively support rural tourism development.

Regarding the quality of information systems, the study revealed a negative direct effect of information quality on tourist satisfaction (-0.185) and destination branding (-0.158). This indicates that while the information provided might meet basic tourist needs, it does not necessarily contribute positively to the destination's image. On the other hand, system quality showed a positive direct effect on tourist satisfaction (0.055) and a more pronounced total effect on rural tourism development (0.783), emphasizing the importance of robust information systems in enhancing tourists' experiences and contributing to tourism growth. These results provide critical insights for stakeholders in rural tourism, particularly in the areas of information system development and policy formulation. Enhancing the system and information quality could lead to improved tourist satisfaction and stronger destination branding, which are key drivers of sustainable tourism development in rural areas.

CONCLUSION

The study emphasizes the critical role of information system quality in rural tourism development, leading to enhanced tourist satisfaction and destination branding. Additionally, it emphasizes the significant impact of local community engagement on tourist satisfaction and destination branding, underlining the significance of community participation in improving tourism experiences. Local government policy has a minor effect on tourist satisfaction and a significant adverse effect on destination branding. This suggests the necessity for policy adjustments to enhance support for rural tourism development. Recommendations include promoting greater involvement from local communities, immediate policy adjustment, and investing in enhancing the quality of information systems. Stakeholder collaboration is crucial for the sustainable development of rural tourism. Future research

Accredited Rank 2 (Sinta 2) based on the Decree of the Dirjen Penguatan RisBang Kemenristekdikti No.225/E/KPT/2022, December 07, 2022. Published by LPPM Universitas Nusa Mandiri

VOL. 9. NO. 2 FEBRUARY 2024
P-ISSN: 2685-8223 | E-ISSN: 2527-4864
DOI: 10.33480/jitk.v9i2.5044

should focus on broadening the study to various villages or regions to improve generalizability.

ACKNOWLEDGMENT

The authors express their gratitude to the Ministry of Education, Culture, Research, and Technology's (DRTPM) Directorate General of Higher Education for funding this study with a research grant in 2023. We also thank rectors of Universitas Siber Indonesia and Universitas Diponegoro for their intangible assistance.

REFERENCE

[1] Muryani, M. F. Permatasari, and M. A. Esquivias, 'Determinants of tourism demand in Indonesia: A panel data analysis', *Tourism Analysis*, vol. 25, no. 1, pp. 77–89, 2020, doi: 10.3727/108354220X15758301241666.

[2] Y. L. Liu, J. Te Chiang, and P. F. Ko, 'The benefits of tourism for rural community development', *Humanit Soc Sci Commun*, vol. 10, no. 1, Dec. 2023, doi: 10.1057/s41599-023-01610-4.

[3] M. Nooripoor, M. Khosrowjerdi, H. Rastegari, Z. Sharifi, and M. Bijani, 'The role of tourism in rural development: Evidence from Iran', *GeoJournal*, vol. 86, no. 4, pp. 1705–1719, 2021, doi: 10.1007/s10708-020-10153-z.

[4] J. M. López-Sanz, A. Penelas-Leguía, P. Gutiérrez-Rodríguez, and P. Cuesta-Valiño, 'Rural Tourism and the Sustainable Development Goals. A Study of the Variables That Most Influence the Behavior of the Tourist', *Front Psychol*, vol. 12, no. 8, 2021, doi: 10.3389/fpsyg.2021.722973.

[5] S. Kumar and Shekhar, 'Technology and innovation: Changing concept of rural tourism-A systematic review', *Open Geosciences*, vol. 12, no. 1. pp. 737–752, 2020. doi: 10.1515/geo-2020-0183.

[6] U. K. Lee, 'Tourism Using Virtual Reality: Media Richness and Information System Successes', *Sustainability (Switzerland)*, vol. 14, no. 7, Apr. 2022, doi: 10.3390/su14073975.

[7] V. De Luca, G. Marcantonio, M. C. Barba, and L. T. De Paolis, 'A Virtual Tour for the Promotion of Tourism of the City of Bari', *Information (Switzerland)*, vol. 13, no. 7, Jul. 2022, doi: 10.3390/info13070339.

[8] T. Tahir, M. Hasan, and M. Dinar, 'Tourism Development Strategy in Improving the Community Economy at Tanjung Bira Beach , Bonto Bahari District , Bulukumba Regency', *Journal of Entrepreneurship Review*, vol. 1, no. 1, pp. 1–15, 2023.

[9] V. C. Mihai, D. E. Dumitras, C. Oroian, G. O. Chiciudean, F. H. Arion, and I. C. Mureşan, 'Exploring the Factors Involved in Tourists' Decision-Making and Determinants of Length of Stay', *Adm Sci*, vol. 13, no. 10, Oct. 2023, doi: 10.3390/admsci13100215.

[10] BPS Kabupaten Bogor, 'Kecamatan Cigombong Dalam Angka 2019', 2019.

[11] H. N. Sabeh, M. H. Husin, D. M. H. Kee, A. S. Baharudin, and R. Abdullah, 'A Systematic Review of the DeLone and McLean Model of Information Systems Success in an E-Learning Context (2010-2020)', *IEEE Access*, vol. 9. Institute of Electrical and Electronics Engineers Inc., pp. 81210–81235, 2021. doi: 10.1109/ACCESS.2021.3084815.

[12] A. Sani, S. Aisyah, A. Budiyantara, R. Doharma, A. Hindardjo, and F. Frieyadie, 'Readiness Technology and Success Model Information Technology in Implementation Between SMEs in Jakarta', *JITK (Jurnal Ilmu Pengetahuan dan Teknologi Komputer)*, vol. 7, no. 2, pp. 111–118, Feb. 2022, doi: 10.33480/jitk.v7i2.2981.

[13] Y. Cui, J. Mou, J. Cohen, and Y. Liu, 'Understanding information system success model and valence framework in sellers' acceptance of cross-border e-commerce: a sequential multi-method approach', *Electronic Commerce Research*, vol. 19, no. 4, pp. 885–914, Dec. 2019, doi: 10.1007/s10660-019-09331-0.

[14] K. Božič and V. Dimovski, 'The Relationship between Business Intelligence and Analytics Use and Organizational Absorptive Capacity: Applying the DeLone & Mclean Information Systems Success Model', *Economic and Business Review*, vol. 22, no. 2, Oct. 2020, doi: 10.15458/ebr99.

[15] R. S. Alotaibi and S. M. Alshahrani, 'An extended DeLone and McLean's model to determine the success factors of e-learning platform', *PeerJ Comput Sci*, vol. 8, 2022, doi: 10.7717/peerj-cs.876.

[16] A. Jeyaraj, 'DeLone & McLean models of information system success: Critical meta-review and research directions', *Int J Inf Manage*, vol. 54, Oct. 2020, doi: 10.1016/j.ijinfomgt.2020.102139.

[17] G. Banafo Akrong, S. Yunfei, and E. Owusu, 'Development and validation of an improved DeLone-McLean IS success model - application to the evaluation of a tax administration ERP', *International Journal of Accounting Information Systems*, vol. 47, Dec. 2022, doi: 10.1016/j.accinf.2022.100579.

[18] N. W. Masri, J. J. You, A. Ruangkanjanases, S. C. Chen, and C. I. Pan, 'Assessing the effects

of information system quality and relationship quality on continuance intention in e-tourism', *Int J Environ Res Public Health*, vol. 17, no. 1, Jan. 2020, doi: 10.3390/ijerph17010174.

[19] H. Sopalatu, S. Hidayattulah, and H. Respati, 'Tourism Website User Study: Measuring the Impact of System Quality and Information Quality Considering User Satisfaction to Obtain the Net Benefit', *East African Scholars Journal of Economics, Business and Management*, vol. 4, no. 1, pp. 24–29, 2021, doi: 10.36349/easjebm.2021.v04i01.004.

[20] D. Arabacıoğlu and B. B. Dedeoglu, 'The Moderating Role of Information Quality in the Relationship Between guides' Communication Skills and Tour Satisfaction', *Journal of Quality Assurance in Hospitality and Tourism*, 2023, doi: 10.1080/1528008X.2023.2264510.

[21] B. Freudenreich, F. Lüdeke-Freund, and S. Schaltegger, 'A Stakeholder Theory Perspective on Business Models: Value Creation for Sustainability', *Journal of Business Ethics*, vol. 166, no. 1, pp. 3–18, Sep. 2020, doi: 10.1007/s10551-019-04112-z.

[22] K. E. A. Saputro, Hasim, L. Karlinasari, and I. S. Beik, 'Stakeholders analysis in agroecotourism development at Panjalu Ciamis', *IOP Conf Ser Earth Environ Sci*, vol. 1109, no. 1, pp. 1–15, 2022, doi: 10.1088/1755-1315/1109/1/012043.

[23] X. L. Ma, M. L. Dai, and D. X. F. Fan, 'Cooperation or confrontation? Exploring stakeholder relationships in rural tourism land expropriation', *Journal of Sustainable Tourism*, vol. 28, no. 11, pp. 1841–1859, Nov. 2020, doi: 10.1080/09669582.2020.1762622.

[24] M. C. M. Lapuz, 'The role of local community empowerment in the digital transformation of rural tourism development in the Philippines', *Technol Soc*, vol. 74, Aug. 2023, doi: 10.1016/j.techsoc.2023.102308.

[25] T. D. Quang, Q. X. T. Nguyen, H. Van Nguyen, V. Q. Dang, and N. T. Tang, 'Toward sustainable community-based tourism development: Perspectives from local people in Nhon Ly coastal community, Binh Dinh province, Vietnam', *PLoS One*, vol. 18, no. 10 October, Oct. 2023, doi: 10.1371/journal.pone.0287522.

[26] T. Deng, W. Zhao, and M. Ma, 'Local Leaders and Tourism Development: A Case Study in China', *J Travel Res*, vol. 61, no. 7, pp. 1619–1630, Sep. 2022, doi: 10.1177/00472875211037746.

[27] A. Jebbouri, H. Zhang, Z. Imran, J. Iqbal, and N. Bouchiba, 'Impact of Destination Image Formation on Tourist Trust: Mediating Role of Tourist Satisfaction', *Front Psychol*, vol. 13, Apr. 2022, doi: 10.3389/fpsyg.2022.845538.

[28] B. Lane, E. Kastenholz, and M. J. Carneiro, 'Rural Tourism and Sustainability: A Special Issue, Review and Update for the Opening Years of the Twenty-First Century', *Sustainability (Switzerland)*, vol. 14, no. 10. MDPI, May 01, 2022. doi: 10.3390/su14106070.

[29] Z. Zaitul, D. Ilona, and N. Novianti, 'Village-Based Tourism Performance: Tourist Satisfaction and Revisit Intention', *Polish Journal of Sport and Tourism*, vol. 29, no. 2, pp. 36–43, Jun. 2022, doi: 10.2478/pjst-2022-0013.

[30] Igor. Stojanovic, Luisa. Andreu, and R. Curras-Perez, 'Social Media Communication and Destination Brand Equity', *Journal of Hospitality and Tourism Technology*, vol. 13, no. 4, pp. 650–666, 2022, doi: 10.1108/JHTT-11-2020-0302.

[31] S. Varelas, P. Karvela, and N. Georgopoulos, 'The impact of information technology and sustainable strategies in hotel branding, evidence from the greek environment', *Sustainability (Switzerland)*, vol. 13, no. 15, Aug. 2021, doi: 10.3390/su13158543.

[32] B. P. Pratama, S. Hidayatullah, S. Alvianna, W. Astuti, and R. Krisnanda, 'Mediation Effect of Customer Satisfaction from the Relationship between System Quality, Information Quality and Service Quality', *Int J Innov Sci Res Technol*, vol. 6, no. 1, pp. 95–100, 2021.

[33] M. L. Cheung, H. Ting, J. H. Cheah, and M. N. S. Sharipudin, 'Examining the role of social media-based destination brand community in evoking tourists' emotions and intention to co-create and visit', *Journal of Product and Brand Management*, vol. 30, no. 1, pp. 28–43, Jan. 2021, doi: 10.1108/JPBM-09-2019-2554.

[34] M. Al-Emran, V. Mezhuyev, and A. Kamaludin, *PLS-SEM in Information Systems Research: A Comprehensive Methodological Reference*, vol. 845, no. March 2023. Springer International Publishing, 2019. doi: 10.1007/978-3-319-99010-1_59.

[35] H. M. S. Priyanath, R. RVSPK, and M. RGN, 'Methods and Rule-of-Thumbs in The Determination of Minimum Sample Size When Appling Structural Equation Modelling: A Review', *JOURNAL OF SOCIAL SCIENCE RESEARCH*, vol. 15, pp. 102–107, Mar. 2020, doi: 10.24297/jssr.v15i.8670.

Accredited Rank 2 (Sinta 2) based on the Decree of the Dirjen Penguatan RisBang Kemenristekdikti No.225/E/KPT/2022, December 07, 2022. Published by LPPM Universitas Nusa Mandiri