Lecture Notes in Networks and Systems 1254

Andres Iglesias Jungpil Shin Bharat Patel Amit Joshi *Editors* 

# Information Systems for Intelligent Systems Proceedings of ISBM 2024, Volume 4



# Lecture Notes in Networks and Systems

Volume 1254

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# Information Systems for Intelligent Systems

Proceedings of ISBM 2024, Volume 4



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## Preface

Third series of World Conference on Information Systems for Business Management ISBM 2024 an extension to our ICT4SD conference series which is now in 9th edition.

Third of ISBM conference will serve as a potential to focus on the avenues and issues related to Governance involved with Information Systems and Business Management in different forms and would be attracted by delegates from more than 46 nations which will present their latest research and its practical implications for business, society, academia, and Governance. It will be an excellent platform to deliberate upon global themes and dimensions of Information Management.

The conference will be held on 12–13 September 2024 at Physical at Bangkok Marriott Hotel Sukhumvit, Bangkok, Thailand, and Digitally via Zoom. The Conference is organized by Global Knowledge Research Foundation and managed by G. R. Scholastic LLP, Supporting Partner Springer, Springer Nature, Knowledge Chamber of Commerce & Industry.

Research submissions in various advanced technology areas were received and after a rigorous peer-review process with the help of program committee members and 120 external reviewers for 1200+ papers from 62 different countries out of which 262 were accepted. These will be presented in 38 parallel sessions in two days organized physically and virtually including one inaugural and three keynote sessions.

The conference is anticipated to attract a large number of high-quality submissions and stimulate the cutting-edge research discussions among many strategists, managers, academic pioneering researchers, scientists, industrial engineers, students, directors, scientists, lawyers, policy experts, information technology professionals from all around the world and provide a forum to discuss more on the theme.

Propose new technologies, share their experiences, and discuss future solutions for design infrastructure. Discuss new case studies which haven't come across, share their experiences, and discuss future impacts and possible solutions for Good Technology Governance. Support and share greater and more impactful RECOMMENDATION for Global GOOD Governance Policies.

Provide a common platform for academic pioneering researchers, scientists, engineers, managers, and students to share their views and achievements. Enrich technocrats, management professionals, and academicians by presenting their innovative and constructive ideas. Focus on innovative issues at international level by bringing together the experts from different countries.

Cantabria, Spain Aizuwakamatsu, Japan Ahmedabad, India Ahmedabad, India Andres Iglesias Jungpil Shin Bharat Patel Amit Joshi

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# The Effect of Community Attachment and Community Satisfaction on Support Tourism Through Perceived Benefits and Perceived Costs on Tourism



#### Veny Megawati, Bambang Widjanarko Otok, and Jerry Dwi Trijoyo

**Abstract** This study aims to investigate the influence of community attachment and community satisfaction on support tourism through perceived benefits and perceived costs in the context of developing the sustainability of tourism villages. A total of 300 respondents who are local residents and entrepreneurs of Malang Heritage Tourism Village in East Java, Indonesia, were this study's subject. Testing was conducted using the Structural Equation Modeling (SEM) method. The results show that community attachment and community satisfaction have a significant positive influence on support for tourism, fully mediated by perceived benefits and perceived costs. Furthermore, perceived costs have a significant negative influence, while perceived benefits have a significant positive influence on tourism support. Perceived benefits proved to be the dominant variable influencing support for tourism development. These results provide important insights into understanding the factors influencing community support for local tourism. The outputs of these findings are expected to help design more sustainable and effective tourism management strategies in rural tourism destinations.

Keywords Social exchange theory · Support tourism · Local community

#### 1 Introduction

Tourism is one of the most important sectors in the global economy, contributing significantly to economic growth, job creation, and cultural promotion. In recent years, tourism has undergone a massive transformation, with new destinations emerging as hot spots for travelers from around the world. Since the 1970s, various stakeholders in the tourism industry, including entrepreneurs, policymakers, and

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academics, have intensively explored the impact of tourism on society. Social Exchange Theory [1] (SET) is a potential explanation of why people support or reject tourism development that can be attributed to the theory's recognition of the heterogeneous nature of host communities, where different groups of individuals may have different attitudes toward tourism, depending on how they perceive the benefits and costs of the industry. Community-based tourism is a tourism implementation system that uses a group of people approach that supports the fair sharing of benefits and advantages [2]. Therefore, local communities need to be actively involved in tourism policy planning and management to feel ownership and support tourism development in their area. One approach that is increasingly gaining attention in tourism development is community-based tourism. CBT refers to a tourism model that places local communities as the main actors in managing and empowering tourism activities. This concept aims to ensure that the benefits of tourism are intended for the community's welfare while preserving the local environment and culture. It recognizes and promotes community-owned tourism, involves them from the beginning in every aspect, and distributes the benefits fairly among community members. Thus, tourism's utmost benefit is for the community's welfare.

The Indonesian government has progressed to provide strong support in developing community-based tourism as one of the efforts to promote sustainable and inclusive development [3]. One example of a successful community-based tourism initiative is Malang Heritage in Malang, East Java. Kayutangan Heritage is the oldest village in Malang City, making it the top 75 of the 2023 Indonesian Tourism Village Award. As one of the best villages, it can bring the atmosphere of the past by providing various interesting photo spots, children's games, learning batik, watching music performances, and various buildings constructed since 1870, attracting tourists. However, a deeper understanding of the social and economic dynamics is needed to ensure the sustainability and growth of tourism in this village. This study uses Social Exchange Theory (SET) as a theoretical framework to understand the relationship between local communities and tourism. However, their impact on rural development and community well-being should not be overlooked [4]. Rural tourism development often involves local communities through various activities, including the opportunity to become a local entrepreneur. This opportunity can have a significant impact by capitalizing on the entrepreneurial dynamics within small tourism enterprises, especially when linked to the lifestyle motivations of individual local entrepreneurs. Another important factor is the social interaction and relationship of the community with visitors, which plays a role in supporting the community's intention and behavior to develop tourism [5]. Also, it is not easy to separate people's perceptions of their relationships with tourists and their attitudes toward tourism development. Over the past few years, communities' attitudes toward the impacts of tourism in their communities have attracted several researchers, resulting in many studies to find out how communities perceive and engage in tourism. This confirms that community perceptions are important to achieve the sustainability of tourism in the community [<mark>6</mark>].

#### 2 Study Overview

#### 2.1 Community Attachment (CA) and Community Satisfaction (CS)

Community attachment refers to a sense of belonging that can measure individuals' integration into social life with an emotional connection [7]. Individuals can feel attached to their group with various aspects, such as the same birthplace or the length of time someone has lived in the community. Community satisfaction is an individual's psychological reflection of services in the community, perceived living conditions, the credibility of the governing government, and civil rights in the community [8]. The assessment of an individual's satisfaction is through the lens of color itself and is seen in terms of community safety, the quality of facilities, the effectiveness of government or organizations, and the like that affect life and the community as a whole [9]. There is a positive relationship between community attachment and support for tourism sustainability, as residents with strong emotional attachments are more likely to support tourism development in their area [10]. The full explanation of community attachment is yet to be revealed. Some studies suggest that community attachment can directly and significantly influence support for tourism [11]. However, other studies do not find significance in the relationship [12].

#### 2.2 Perceived Benefits and Cost Tourism

Perceived Benefits Tourism (PBT) defined by Wang and Pfister [13], is economic, social, and/or cultural value obtained by the community and derived from the exchange relationship of the tourism industry. Economic benefits include creating jobs and employment opportunities, business development opportunities, and investment opportunities, while the benefits felt from the social and cultural side are increased promotion of traditional culture of an area, preservation of the original resources of the environment, and increased awareness. PCT is simply the perceived cost or negative impact of tourism that will likely influence on community support for ongoing tourism [14]. Tourism can also have a negative impact by disrupting and damaging local communities, undermining prevailing social norms, degrading the social structure of the community, and removing individuality from the community. Perdue et al. [1] and Nunkoo and So [15] found a significant relationship between PBT and support for tourism. This result is opposite to the relationship between PCT and support for tourism, namely, there is no significant relationship on costs or negative impacts on the sustainability of tourism [16]. The results of Vidal's [17] show that perceived benefits have a significant positive influence on support of tourism, while perceived costs have a negative effect, which means reducing local people's support for tourism in the community.

#### 2.3 Mediating Variable

Communities with higher attachment have higher perceptions of the benefits of tourism and influence their support for tourism [14]. Residents who have an attachment to their community have more opportunities to feel the benefits and economic benefits of tourism in their community. Moreover, community satisfaction can directly and positively influence the perceived benefits of tourism, and community satisfaction can directly and negatively influence the perceived costs of tourism [18]. In terms of perceived costs, residents with high attachment who feel that tourism can make an impact may have greater perceived costs, and people with high community attachment perceived the socio-economic impacts of tourism more negatively, thus influencing their support for tourism sustainability [19].

#### 2.4 Support Tourism

Support tourism can be defined as the extent to which the community can assess the effects of tourism in their community [20]. Community support for existing tourism is critical to the sustainable development of tourism destinations. Local communities will be the main players in tourism through the attitudes they show and especially their active support for successful development and social acceptance [21]. Even though an area has excellent potential, if the surrounding community does not support it, it can cause this potential to have no results. In fact, residents' behavior, hospitality, and acceptance toward visitors can also be an attraction factor that influences tourists' attention to tourist destinations [22]. Therefore, community support shown through attitudes will greatly affect the sustainability of tourism development [21].

#### 3 Methodology

The measurements in this study use an interval scale using is a Likert scale, to determine how much respondents agree or disagree with a series of statements given in this study. The target population of this study was local communities and entrepreneurs in East Java who are over 18 years old, live in a tourist village, are active in the tourist village development community, have a business that has been established for more than one year, and have interacted directly with tourists in the tourist village. The analysis in this study used the Structural Equation Modeling method. The measurement in this study used an interval scale. There are two things done and produced in SEM, namely, (i) estimating several interconnected equations simultaneously with the output of the structural model and (ii) representing latent variables (construct/latent/unobserved variables) based on indicator variables (manifest/ observed variables) with the output of the measurement model (Fig. 1).



Fig. 1 Conceptual framework

#### 4 Research Results

#### 4.1 Descriptive and Data Quality Testing

Of the 300 respondents who filled out the questionnaire, 39.3% were Millennials aged 28–43, and 28.3% were Gen X aged 44–59. Respondents in this study were dominated by 42.0% of residents who had lived more than 30 years in the village. In this study, most respondents were male (66.8%). Then 75.5% were village residents, with the dominating type of work as housewives (28.5%). The level of education is in accordance with the criteria, with a minimum of high school/equivalent, and the dominant respondents live in a family home. Through the measurement model, tests were carried out, which included convergent validity, discriminant validity, and reliability tests. The validity test aims to determine the representative level of questions in the questionnaire. The validity test uses confirmatory factor analysis on each latent variable. The loading factor value of all latent variables in this study is declared valid because it has a value of more than 0.5. The second test is the reliability test, in this study, the reliability test used construct reliability with a cut-off value of at least 0.7.

Table 1   Validity and     reliability tests   Image: second sec	Variabel	C-R	AVE	Square root of AVE	
	CA	0.827	0.616	0.785	
	CS	0.751	0.503	0.709	
	PBT	0.919	0.695	0.833	
	PCT	0.902	0.648	0.805	
	ST	0.892	0.631	0.794	

The construct reliability value of each indicator in the variables in the questionnaire is declared reliable because it is more than 0.7 with an AVE of more than 0.5. Both tests were processed using AMOS software. Table 1 shows that each variable can be declared valid and reliable.

#### 4.2 Structural Model

The results show a determinant of sample covariance matrix value of 0.019. This value is close to 0 but still less than 10E-5, so it can be said that there is no singularity problem in the analyzed data. The p-value on covariance is greater than ( $\alpha = 0.05$ ), so there is no multicollinearity. The Mahalanobis value, which is greater than the Chi-square table or p1 value < 0.001, is said to be an outlier observation. There are five outlier data in this study, yet as they are still below 5% of the observations, it can be said that there are no outliers. The latent variables can be continued in the analysis in the form of a path diagram presented as follows. The model uses goodness-of-fit indices to assess how well the estimated hypothesis model fits the variance and covariance structure of the observed variables. The three indices used are the Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), and Root Mean Error of Approximation (RMSEA). According to Hair et al. [23], for a good model and the acceptable cut-off (Table 2).

GoF	Cut-off	Results	Remarks
Chi-square	Expected small	354,933	$\chi^2$ with df = 796 is 862.74
Significance	$\geq 0.05$	0.000	Poor fit
RMSEA	$\leq 0.08$	0.062	Good fit
GFI	≥ 0.90	0.894	Marginal fit
AGFI	$\geq 0.90$	0.851	Marginal fit
CMIN/DF	≤ 2.00	2.164	Marginal fit
TLI	≥ 0.90	0.943	Good fit
CFI	$\geq 0.90$	0.955	Good fit

Table 2 Goodness-of-fit index

#### 4.3 Hypothesis Testing

Hypothesis testing is done by measuring the direct effect of indirect effects. The Sobel test is carried out by testing the strength of the indirect effect of the independent variable on the dependent variable in the presence of a mediating variable. If the Sobel test statistic  $\geq 1.96$  with a significant 5%, then the variable can be said to be able to mediate between the independent and the dependent variable [24]. Furthermore, testing will be carried out to determine the indirect effect of the mediating variable (Fig. 2).

Table 4 shows there are large indirect effects of exogenous latent variables on endogenous latent variables. PBT provides the largest indirect effect on CS to ST by 0.163, then on CA to ST by 0.129. The test in Table 3 shows that the direct effect of CA on ST is significant, while the indirect effect through the mediation of PBT and PCT produces a significant value with the nature of partial mediation. Therefore, CA can increase ST, even without mediation, but it can also be supported by strong PBT and PCT, so the influence on tourism support will be even higher. The direct effect of CS on ST is not significant, while its indirect effect through the mediation of PBT and PCT, so the influence with the nature of full mediation. Therefore, CS can only increase tourism support if it is supported by strong PBT and PCT.



Fig. 2 SEM testing results

Variable	Coefficient	C-R	P-value	Remarks
$CA \rightarrow PBT$	0.395	4.941	0.000	Sig.
$CS \rightarrow PBT$	0.497	5.717	0.000	Sig.
$CA \rightarrow PCT$	0.026	0.253	0.800	Not sig.
$CS \rightarrow PBT$	- 0.235	- 2.186	0.029	Sig.
$CA \rightarrow ST$	0.334	3.572	0.000	Sig.
$\text{CS} \rightarrow \text{ST}$	0.071	0.682	0.0495	Not sig.
$PBT \rightarrow ST$	0.327	3.081	0.002	Sig.
$PCT \rightarrow ST$	- 0.153	- 2.975	0.003	Sig.

Table 3 Results of hypothesis testing

Table 4 Mediation effect with sobel test

Indirect Effect	Coefficient	t-hitung	<i>p</i> -value	Mediating	Effect
$\mathrm{CA} \to \mathrm{PBT} \to \mathrm{ST}$	0.129	10.49	0.000	Sig.	Partially
$\text{CS} \rightarrow \text{PBT} \rightarrow \text{ST}$	0.163	24.49	0.000	Sig.	Full
$CA \rightarrow PCT \rightarrow ST$	-0.004	- 23.41	0.000	Sig.	Partially
$\text{CS} \rightarrow \text{PCT} \rightarrow \text{ST}$	0.036	9.72	0.000	Sig.	Full

#### 5 Discussion

Hypothesis 1 testing that shows community attachment has a significant positive influence on support tourism has important implications in the context of the relationship between individual psychological factors and support tourism behavior. This is also in line with theories that highlight the importance of social attachment in shaping individual behavior related to social communities that cause positive significant relationships [7, 10-12]. This could include programs designed to increase participation in community activities, build awareness of local cultural and historical values, and promote deeper social interaction between locals and visitors. The results of testing attachment to support that is positively mediated by costs and benefits also provide significant results that provide additional influence through the nature of partial mediation. Thus, residents' emotional attachment to local culture and heritage is the basis for supporting tourism development. Their support is also influenced by the benefits and costs of the development, the stronger their attachment to culture and heritage, and the clearer the benefits and costs of tourism development, the greater their support. The result of hypothesis 2 testing shows that community satisfaction has no significant effect on support tourism. In other words, services obtained, facility quality, organizational quality, and others, do not directly affect individual support for tourism development because the community will focus more on the benefits obtained [18]. It should be understood that the test results show that the level of satisfaction has the potential to increase support for tourism development with a record of indirect influence through the mediator of perceived costs and

benefits of tourism with the nature of full mediation, which means that although community satisfaction can indirectly affect support for tourism, the main influence occurs through the perceived costs and benefits due to tourism [25]. The result of testing the mediating variable shows that strong PCT indicates that communities feel that tourism-related costs, such as higher living costs or negative environmental impacts, are acceptable or well-managed. On the other hand, strong PBT indicates that communities feel that the benefits they derive from tourism, such as economic growth, cultural preservation, or infrastructure improvements, are worth more than the costs. With the combination of these two factors, community satisfaction can be strengthened, thereby increasing support for tourism. The results of hypothesis 3 and 4 testing are supported, where the PBT positively and PCT negatively have a significant influence on support tourism. This is consistent with the theoretical framework of behavioral economics and social exchange theory, which emphasizes the important role of individual perceptions in shaping support behavior for economic and social activities [26]. Individuals are likely to support tourism if they believe that the presence of tourism will provide benefits to them personally or to the community as a whole. Simply put, if individuals perceive risks, costs, or negative impacts of tourism on the community or themselves, it will make them reduce their support for tourism, and if individuals benefit from tourism, it will also increase their support for tourism.

People with higher attachment conditions want to see the community they are attached to continue to grow, and this causes them to be more sensitive to the costs of tourism. The negative relationship between PCT and support tourism illustrates that people tend to assess the negative impacts of tourism as outweighing the benefits if they consider the costs to be high, which can make people more skeptical of the positive value generated by tourism. These costs include increased property prices, increased daily needs, increased cost of living, environmental damage due to tourism activities, and others. In Malang Heritage, the level of satisfaction and engagement of the local community has a positive impact on its perceived benefits. For example, the satisfaction with improved tourist facilities and infrastructure makes them realize that there is an increase in tourist visits and preservation of local cultural heritage. From the test results, people's level of satisfaction with the community and emotional ties to the community dominantly influenced their perception of tourism benefits. This may provide new findings that tourism's benefits are assessed not only in economic terms by the community but also in emotional attachment and satisfaction with the community. Seeing the emotional attachment and satisfaction of the community will indirectly create an impression of its benefits in any aspect. The high level of satisfaction and emotion is also considered very influential and can have a positive impact on public awareness of the benefits felt. The major influence and impact is on perceived benefits to support tourism, which indicates that the high level of benefits in the form of economic, social, and cultural values obtained by the community for the sustainability, and sustainability of tourism is able to encourage poverty alleviation because it begins to create jobs, employment opportunities, business development

opportunities, and opportunities to invest. The benefits felt from the social and cultural side are increased promotion of traditional culture of an area, preservation of the original resources of the environment, and increased awareness for the surrounding population to protect the environment.

#### 6 Conclusion

The results show that individuals' emotional ties to their community have a significant positive effect on their support for tourism. This confirms the importance of individual psychological factors in shaping support behavior toward tourism sustainability. Although community satisfaction with services, facilities, and organizations does not directly affect individual support for tourism, it has the potential to increase support if viewed through the perceived costs and benefits of tourism. The findings show that individuals' perceived benefits and costs of tourism significantly influence their support for tourism. If individuals see benefits that outweigh the costs, they are likely to support tourism development. In the study, community attachment provides dominant results on perceived benefits so that emotional attachment and community satisfaction are not only assessed in economic terms but also in social and cultural terms, which can create awareness of the benefits felt by the community. This study provides factors that influence tourism support; for future research, it is recommended to conduct comparative studies between tourism destinations with different destinations and further qualitative analysis of the costs and benefits of tourism.

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