

EXPLORING THE IMPACT FACTORS TO VALUE CO-CREATION OF RESIDENTS IN DA LAT CITY

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Abstract

This study evaluated the factors affecting residents' value co-creation based on their attitudes towards tourism development, community attachment, and interactions with tourists. The study was conducted using structural equation modeling to analyze data from 481 residents of Da Lat city, Lam Dong, Vietnam. The research results reveal that residents' value co-creation is impacted by community attachment, interactions with tourists, and attitudes toward tourism development. The most impactful factor on residents' value co-creation is their attitudes toward tourism development. However, the relationship between the residents' interactions with tourists and their attitudes toward tourism development gives no significant results. Finally, the study proposes some managerial implications for the authorities and service providers.

Keywords: Da Lat; Residents; Tourists; Value co-creation.

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KHÁM PHÁ CÁC YẾU TỐ ẢNH HƯỞNG ĐẾN ĐỒNG SÁNG TẠO GIÁ TRỊ CỦA NGƯỜI DÂN ĐỊA PHƯƠNG TẠI THÀNH PHỐ ĐÀ LẠT

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Tóm tắt

Mục đích của nghiên cứu này đã đánh giá các yếu tố ảnh hưởng đến đồng sáng tạo giá trị của người dân địa phương dựa trên thái độ đối với phát triển du lịch, sự gắn kết cộng đồng và sự tương tác với khách du lịch của người dân. Nghiên cứu được thực hiện theo phương pháp nghiên cứu định lượng với 481 cư dân sinh sống tại thành phố Đà Lạt, Lâm Đồng, Việt Nam. Kết quả nghiên cứu đã phát hiện ra rằng đồng sáng tạo giá trị của người dân bị ảnh hưởng bởi sự gắn kết cộng đồng, sự tương tác với khách du lịch và thái độ tích cực đối với phát triển du lịch. Kết quả cũng cho thấy yếu tố ảnh hưởng lớn nhất đến đồng sáng tạo giá trị của người dân là thái độ tích cực đối với phát triển du lịch của họ. Tuy nhiên, nghiên cứu không tìm thấy mối quan hệ giữa sự tương tác của người dân với khách du lịch và thái độ của người dân tích cực đối với phát triển du lịch. Cuối cùng, nghiên cứu đề xuất một số hàm ý quản lý đối với cơ quan có thẩm quyền và các nhà cung cấp dịch vụ.

Từ khóa: Đà Lạt; Đồng sáng tạo giá trị; Khách du lịch; Người dân địa phương.

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1. INTRODUCTION

Value co-creation has become an interesting topic that has received the attention of researchers in recent years (Järvi, Kähkönen, & Torvinen, 2018). The interest originates from a change in the way businesses create value in the operation process. In the past, the value was created primarily in the production process of products; however, the transition from a production perspective to a production-cooperation perspective requires all product-related parties to create value (Vargo & Lusch, 2004). This means that the producers, customers, and suppliers interact together to create opportunities in business, new products, and new needs. Therefore, the theory of value co-creation became an influential theory in different fields and is widely applied in the field of marketing and services. The researchers focus primarily on customers, considering them to be the center of co-creation activity (Galvagno & Dalli, 2014). In the tourism industry, the concept of value co-creation is applied widely. It considers the relationships between customers (Rihova, Buhalis, Moital, & Gouthro, 2015) or customers with the tourism organization (Binkhorst & den Dekker, 2009; Cabiddu, Lui, & Piccoli, 2013). However, studies of value co-creation for residents interacting with tourists have not received the proper attention of researchers (Lin, Chen, & Filieri, 2017; Rihova et al., 2015).

Residents play an important role in the tourism industry. They interact and provide services to tourists, and the experience of tourists with the local people will affect satisfaction, pleasure, and future behavior (Sharpley, 2014). The researchers focused their research on explaining antecedents affecting the attitudes of residents to support tourism development (Eusébio, Vieira, & Lima, 2018; Moghavvemi, Woosnam, Paramanathan, Musa, & Hamzah, 2017; Ouyang, Gursoy, & Sharma, 2017; Woosnam, Draper, Jiang, Aleshinloye, & Erul, 2018), residents' life satisfaction (Kim, Uysal, & Sirgy, 2013), or residents' quality of life (Carneiro, Eusébio, & Caldeira, 2017). However, researchers still have not performed much research to discover the outcome of residents' attitudes toward tourism development. Therefore, in this study, we suggest that the residents' attitudes toward tourism development be considered as an antecedent value co-creation of residents.

This paper investigated residents' value co-creation in the interaction process with tourists based on three aspects: attitudes towards tourism development, community attachment, and interactions with tourists. The social exchange theory is used as an intermediary to explain value co-creation of residents. Social exchange theory has been widely used by researchers in studying the attitudes of residents towards the development of tourism, so we look forward to extending this theory further to explain the residents' value co-creation. This research aims to explore the factors that affect the value co-creation of residents. Moreover, this study also contributes to the application of social exchange theory to explain the value co-creation of residents. The rest of the report includes the following main contents: literature review and hypotheses, methods, results, and conclusions.

2. LITERATURE AND HYPHOTHESES

2.1. Value co-creation

Value is a concept that has been a focus of long-term research by researchers and applied in the business and production activities of enterprises. Creating new products that bring superior value benefits shareholders and is one of the competitive advantages of businesses (Babin & James, 2010; Bolton, Grewal, & Levy 2007). To date, marketing studies have provided some concepts about value, but there is disagreement among researchers (Gummerus, 2013). Scholars have come up with different concepts, such as the value that can be defined as the result, which is the function of benefit versus sacrifice, or context and experimentation (Gummerus, 2013). Value defined as the result means values include different levels, from the lowest to the highest, of product attributes, performance attributes, goals, and objectives (Gummerus, 2013; Woodruff, 1997). Value can be defined as benefits versus sacrifices meaning, in the simplest form, that value is customer appreciation of quality (service) over cost (Zeithaml, 1988). Besides, values need to be defined in a specific social context to determine the influencing factors (Edvardsson, Tronvoll, & Gruber, 2011). In this study, we consider the notion of value from the perspective of residents who compare the benefits gained in tourism development to the negative impacts of tourism. Prahalad and Ramaswamy (2004) proposed the concept of co-creating value, emphasizing the interactions between companies and customers that create value together. Vargo and Lusch (2004) examined this phenomenon and introduced the concept of S-D logic, which emphasizes the development of relationships between consumers and organizations through dialogue and continuous interaction. S-D logic considers customers to be the center of operations combined with other resources, and a partnership that creates value with the company rather than just consultants or ideas (Vargo, 2008). However, the concepts of Prahalad and Ramaswamy emphasize that only the customer is the main actor, so Grönroos (2008) argues that service providers should become value co-creators through direct engagement and interaction with customers in their value creation processes. Hence, Spohrer and Maglio (2008) came up with a concept of co-creation, which is the optimal change made as a result of communication, planning, and/or other purposeful interactions between multiple entities.

Generating value co-creation is divided into two factors: "co-production" and "value-in-use" in which the first factor relates to the product creation process, while the second factor relates to the value generated during use (Ranjan & Read, 2016). Customers evaluate and determine the value of goods and services based on their user experiences (Vargo & Lusch, 2004). Tourism is a major service industry in which the basic conditions for successful tourism development are a balanced, harmonious relationship between tourists, residents, and organizations providing travel services (Zhang, Inbakaran, & Jackson, 2006). Moreover, tourism takes place in a complex social context; tourists explore value at a destination, such as people, culture, and cuisine, through the process of mutual interactions with residents and experiences told to other travellers about previous experiences (Rihova et al., 2015). Thus, value co-creation is the value-in-use or value of the tourists' experience (Lin et al., 2017).

Furthermore, the nature of value in the exchange process involves resources that are used as a platform to enable customers to make value in the process of use (Grönroos, 2008). In tourism, the interactions between residents and tourists is a process to optimize the benefits accruing from the encounter (Sharpley, 2014). Tourists are looking for interesting experiences, and residents want to maximize the benefits of tourism and limit the negative impacts of tourism development. Research by Lin et al. (2017) suggests that residents will create value with tourists in the interaction process if they receive benefits, as opposed to feeling negative effects. Thus, the theoretical foundation of value co-creation between residents and tourists is the social exchange theory (Lin et al., 2017).

2.2. The attitude toward tourism development

Social exchange theory (Foa & Foa, 1975) is used quite commonly in analyzing relationships in psychology. This theory concerns exchanging physical or mental resources in the community or in a group of people. The theory is mainly used to analyze the processes of completely voluntary exchanges between participating parties (Sharpley, 2014). According to this theory, residents will keep the attitude of supporting tourism development so long as they believe that the benefits can compensate for the costs or losses brought about by development (Eusébio et al., 2018). This is an important theory and is widely used in studying residents' attitudes towards tourism development. Therefore, hypotheses H₁ and H₂ related to social exchange theory are presented as follows:

- H₁: Perceived benefits have a positive relationship with the residents' attitudes toward tourism development.
- H₂: Perceived costs have a negative relationship with the residents' attitudes toward tourism development.

The interaction between residents and tourists is a personal interaction process aimed at exchanging resources with each other. According to Karpen, Bove, & Lukas (2012), one of the six significant dimensions to value co-creation between an organization and customers is individuated interaction capability. The concept of individuated interaction capability is "an organization's ability to understand the resource integration processes, contexts, and desired outcomes of individual customers and other value network partners" (Karpen et al., 2012). In this context, residents play a role as service providers to tourists, and they have to know the expectations from their customers in the interaction process. Therefore, we suggest that residents have a supportive attitude to tourism development; they have motivation to co-create value with tourists in the interaction process to understand customers' needs and create tourism products. Hypothesis H₃ is stated as follows:

- H₃: The residents' attitude toward tourism development has a positive relationship with residents' value co-creation.

2.3. Interaction between tourists and residents

Interactions in tourism activities are defined as “the personal encounter that takes place between a tourist and a host” (Eusébio et al., 2018; Reisinger & Turner, 2012). Therefore, the quality of the interaction process will bring positive feelings to both parties. Luo, Brown, and Huang (2015) argue that if the interaction is positive, it will determine the development of positive travel experiences for tourists and determine the success of tourism. Meanwhile, the interaction plays a significant role in developing the residents' positive perceptions and attitudes towards tourism development (Eusébio et al., 2018). Residents' exposure to visitors will determine their attitudes. Andereck, Valentine, Knopf, and Vogt (2005) show that when the level of interaction is sufficient, residents will make a positive assessment of tourism development and ignore the negative impacts. Luo et al. (2015) affirm that a host's perception of tourists is affected by the quantity and quality of the interactions with them. Eusébio et al. (2018) found that the interaction between residents and tourists is the most important factor affecting the attitude toward tourism development. Thus, interaction is an important rationale for explaining the attitude of residents towards tourism development. The authors propose:

- H₄: The interaction between residents and tourists has a positive relationship with the perceived benefits of tourism development.
- H₅: The interaction between residents and tourists has a negative relationship with the perceived costs of tourism development.
- H₆: The interaction between residents and tourists has a positive relationship with residents' attitudes toward tourism development.

Ballantyne and Varey (2006) proposed that interaction is a “generator of service experience and value-in-use.” Furthermore, Grönroos (2008) developed a theoretical foundation for value co-creation based on the interaction between customers and suppliers, where the supplier becomes a co-creator of value to its customers. In the context of tourism, residents who interact with tourists are service providers for tourists, so the interaction between residents and tourists plays a significant role in the transfer of key values in tourism services. Thus, the hypothesis is stated as follows:

- H₇: The interaction between residents and tourists has a positive relationship with value co-creation of residents.

2.4. Community attachment

Community attachment has been defined as the level of social cohesion, such as friendship, affection, and social participation (Goudy, 1990). McCool and Martin (1994) defined community attachment as “the extent and pattern of social participation and integration into the community, and sentiment or affection toward the community.” Based on the assumption that citizens living in an area will be inextricably linked to their community, the degree of cohesion will affect residents' sense on the local economic

position, the costs, and the benefits of tourism development (Gursoy, Jurowski, & Uysal, 2002). However, the research team examining the community’s attitude towards tourism development has reported mixed results about the impact of community attachment. McCool and Martin (1994) could not find a relationship between community attachment and residents' perceptions, but they found a positive relationship between the degree of community attachment and the level of tourism development. The study of Gursoy et al. (2002) found no link between community attachment and perceived benefits and costs in Virginia (USA). However, a study of residents’ attitudes towards art festivals in South Africa shows that community attachment has a relationship with the perceived benefits and costs to local people (Loots, Ellis, & Slabbert, 2012). Woo, Kim, and Uysal (2015) propose that residents assess the level of tourism development in their communities, thereby affecting their consciousness and attitudes toward tourism development. Thus, community attachment acts as a resource influencing the attitudes and behavior of the residents. Moreover, a resident's attachment contributes to preserving cultural values and helps to spread local values in interactions with tourists. Therefore, the authors proposed that community attachment has an impact on residents’ value co-creation through a perception of the benefits of tourism development. The hypotheses are stated as follows:

- H₈: Community attachment and the perceived benefits of tourism are positively correlated.
- H₉: Community attachment and the perceived costs of tourism are positively correlated.

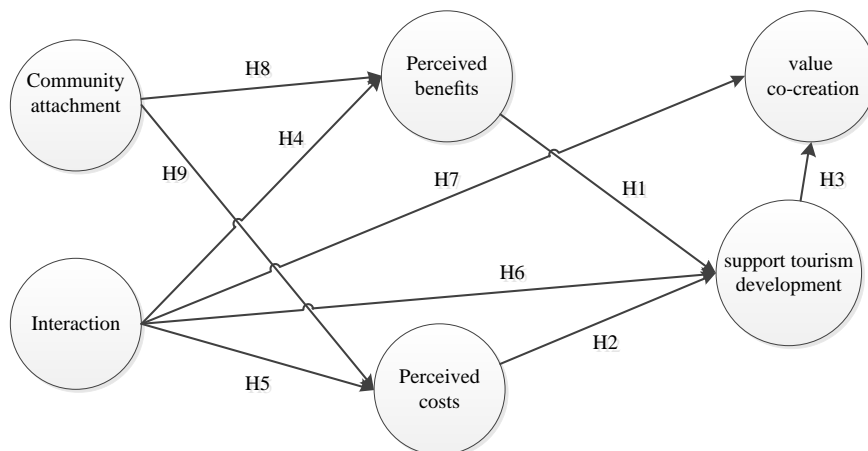


Figure 1. Framework research

3. METHOD

3.1. Research context

Da Lat is a tourist city with a history of formation and development over 100 years. Located on the Lang Biang plateau at an altitude of 1,500 meters above sea level and surrounded by rows of mountains and forests, Da Lat people enjoys a mild mountainous climate and cool air all year round. The city is suitable for leisure travel,

hiking, and adventure tourism to explore nature. Tourism is the city's main economic sector, accounting for about 65% of Gross Regional Domestic Product (GRDP) and has a growth rate of more than 10% per year (Báo Lâm Đồng, 2017). In 2018, the number of tourists visiting and relaxing in Da Lat was nearly 6.5 million, increasing by 10.3% over the same period (Báo, 2018). However, the rapid development of the city in recent years has also harmed the city with noise, pollution and traffic congestion.

3.2. The design and data collection

The research process comprised two phases: qualitative research and quantitative research. In the first stage, qualitative research was carried out by group discussion. A group of 10 residents who interact with tourists was invited to participate in the discussion. The quantitative research process was conducted after completing the qualitative research. A sample was collected by a convenient sampling method. The participants of the survey were residents over 18 years old who live in Da Lat and have interacted with tourists in the last six months. Data were collected using face-to-face interviews at various places in Da Lat. To ensure data were collected accurately and reliably, interviewers were trained on the questionnaire content so that they could explain it to interviewees.

The study uses the method of structural equation modeling (SEM) to assess the relevance of hypothetical research and testing models. Based on the rules to ensure the number of observations needed to perform SEM analysis, there must be 5 or 10 observations for each scale in the questionnaire (Bollen, 1989). Therefore, the sample size needed for data collection in the study could be 140 or 280 because there are 28 free parameters. However, out of 500 questionnaires distributed in interviews to ensure a representative population, a total of 481 questionnaires were used for SEM analysis after data screening. The total sample size is suitable with the suggested number from 30 to 460 (Wolf, Harrington, Clark, & Miller, 2013). The research uses SPSS AMOS 21 software to analyze the data.

Descriptive statistical results (Table 1) show that respondents were 55.9% male and 44.1% female. Most interviewees were young; those under 35 years old accounted for 72.0% and middle-aged people 16.0%. Respondents with a college or university education accounted for 70.0%, while those with high school or postgraduate education accounted for 19.0% and 10.0%, respectively.

Table 1. Respondent demographics

	Number of Observations	Percentage (%)
Gender		
Male	269	55.9
Female	212	44.1
Age		
18 - 25	223	46.4

Table 1. Respondent demographics (cont.)

	Number of Observations	Percentage (%)
26 - 35	126	26.2
36 - 45	77	16.0
46 - 55	41	8.5
> 55	14	2.9
Education		
High School	93	19.3
College	76	15.8
University	264	54.9
Postgraduate	48	10.0

3.3. Measurement development

The questionnaire was designed to include two parts. The first part is basic information about the respondents including gender, age, and education. The second part of the questionnaire is the measurement scale items that have already been validated in previous research. A questionnaire using a five-point Likert scale was used to gather data for each construct of the research model. The authors designed questionnaires that fit the research context in Vietnam. We first developed the questionnaire in English and then translated it into Vietnamese. To ensure content validity, three marketing researchers were invited to participate in the translation process so that the questionnaire is simple, easy to understand, and concise.

The scales of the research were taken from previous studies related to the topic of residents by different authors. All the scales have been applied to different research environments and are constantly being added to and developed by researchers. The scales of perceived benefits, perceived costs, and value co-creation were taken from a study by Lin et al. (2017) that applied social exchange theory to explain value co-creation of residents in China. The attitude toward tourism development scales were adapted from the study of Woosnam et al. (2018). The scales were built from the tourism impact attitude scale (TIAS) model and have been verified and proven in previous studies on residents' attitudes toward tourism development. The scales of community attachment are from Gursoy et al. (2002) and were used to study the impact of community attachment on perceived benefits, perceived costs, and local economic status in the United States. Finally, the interaction scales are taken from the study of Eusébio et al. (2018). The interaction scales were developed by Teye, Sirakaya, and Sönmez (2002) in a study of residents' attitudes towards tourism development in African countries. Eusébio et al. (2018) applied them to measure the attitudes of residents in Boa Vista Island (The Republic of Cabo Verde).

4. RESULTS

4.1. Common method variance analysis

Common method variance (CMV) is “variance that is attributable to the measurement method rather than to the constructs the measures represent” (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). The study applies the questionnaire survey method to collect data from residents, so CMV may be a possible concern. Therefore, the study utilized Harman’s one-factor test to analyze CMV (Podsakoff et al., 2003). The results of an exploratory factor analysis using SPSS estimate the percent of variance at 25.92%, less than the commonly accepted threshold of 50.00%. This suggests that common method variance is not an issue with these data.

4.2. Measurement model

The scales in the study are analyzed for indicators to evaluate some important content, such as consistency, internal reliability, convergent validity, and discriminant validity. Table 2 exhibits the load factor results of confirmatory factor analysis (CFA) analysis, composite reliability (CR), and average variance extracted (AVE) indicators. To assess internal reliability, CR numbers are generally used. The calculated CR factor values ranged from 0.774 to 0.899, and are greater than the recommended value of 0.708 (Hair, Hult, Ringle, & Sarstedt, 2016). Therefore, it can be concluded that the scales achieve the necessary reliability value. Moreover, the CFA analysis shows that the loading factors of all items on structures are greater than 0.500, and the AVE is in the range of 0.500-0.650, greater than the value of 0.500 (Hair et al., 2016). Therefore, the overall measurement model of this study achieves full convergent validity (see Table 2).

Table 2. Scale items and scale validation

Measurement item	Model construct	Mean	Estimate	CR	AVE
Da Lat should support the promotion of tourism.	Attitude support	4.040	0.765	0.899	0.500
I support new tourism facilities that will attract new visitors to Da Lat.		4.079	0.753		
Da Lat should remain a tourist destination.		4.023	0.731		
In general, the positive benefits of tourism outweigh negative impacts.		3.973	0.679		
The tourism sector will continue to play a major role in Da Lat’s economy.		4.035	0.711		
It is important to develop plans to manage growth of tourism.		4.029	0.674		
I believe tourism should be actively encouraged in Da Lat.		3.944	0.791		

Notes: chi-square = 586.534; df = 333.000 chi-square/df = 1.760; RMSEA = 0.044; GFI = 0.919; TLI = 0.953; CFI = 0.959.

Table 2. Scale items and scale validation (cont.)

Measurement item	Model construct	Mean	Estimate	CR	AVE
Long-term planning by Da Lat can control negative environmental impacts.		4.054	0.599		
I support tourism and want to see it remain important to Da Lat.		3.877	0.641		
Revenues for local governments	Perceived benefit	4.023	0.671	0.838	0.510
Increased investment		4.029	0.749		
Improved infrastructure		3.979	0.771		
Employment opportunity		3.931	0.734		
The positive tourism impacts on standard of living		3.869	0.638		
How sorry or pleased would you be if you move away?	Community attachment	3.626	0.599	0.801	0.504
Knowing what goes on in the community		3.717	0.729		
How much do you feel at home in this community?		3.877	0.719		
Satisfaction with the community		3.944	0.779		
I enjoy interacting with tourists.	Interaction	3.717	0.727	0.774	0.533
My interactions with tourists are positive.		3.626	0.715		
I have developed a friendship with tourists.		3.570	0.747		
I treated tourists with high esteem.	Value co-creation	3.929	0.767	0.847	0.650
I provided tourists with useful information, such as transport, attractions, restaurants, hotels, and others.		3.859	0.807		
I provided tourists with information on our way of life, traditional culture, and history.		3.780	0.842		
Tourism impacts on environmental pollution	Perceived cost	2.245	0.852	0.877	0.641
Tourism impacts on noise		2.200	0.819		
Tourism impacts on traffic congestion		2.198	0.775		
Tourism impacts on crowding		2.202	0.752		

Notes: chi-square = 586.534; df = 333.000 chi-square/df = 1.760; RMSEA = 0.044; GFI = 0.919; TLI = 0.953; CFI = 0.959.

In the next step, the authors analyzed the discriminant validity by examining the cross-loadings of the indicators. Specifically, an indicator's outer loadings on a construct should be higher than all its cross-loadings with other constructs (Hair et al., 2016). The results presented in Table 3 show that the correlations for each construct are less than the square root of the average variance extracted by the indicators. Therefore, the model of this study meets the requirement of the discriminant validity of the research scales.

Table 3. Construct correlations

	Support	Perceived benefit	Community attachment	Value co-creation	Perceived cost	Interaction
Support	0.707					
Perceived benefit	0.400	0.714				
Community attachment	0.035	0.332	0.710			
Value co-creation	0.683	0.381	0.087	0.806		
Perceived cost	-0.440	-0.224	0.069	-0.428	0.800	
Interaction	0.326	0.401	0.218	0.340	-0.196	0.730

The authors evaluated the overall model fit using the chi-square test combined with other indicators, such as RMSEA, GFI, TLI, and CFI. The results show a good fit between the model and data: chi-square = 586.534, df = 333.000, chi-square/df = 1.760, RMSEA = 0.044, GFI = 0.919, TLI = 0.953, CFI = 0.959, and the factor loadings for all items were greater than the minimum value of 0.500 (Hair, Black, Babin, Anderson, & Tatham, 2006). Therefore, no items were deleted in the theoretical model and the model fit with data.

4.3. The structural model

A structural equation modeling (SEM) approach was adopted in our data analysis. Figure 2 presents the results of the structural model from the AMOS software. Specifically, chi-square = 614.334, df = 338.000, p = 0.000, chi-square/df = 1.818, RMSEA = 0.041, GFI = 0.915, TLI = 0.949, and CFI = 0.955. According to Hair et al. (2006), all indicators are satisfactory and the data are relevant to the market.

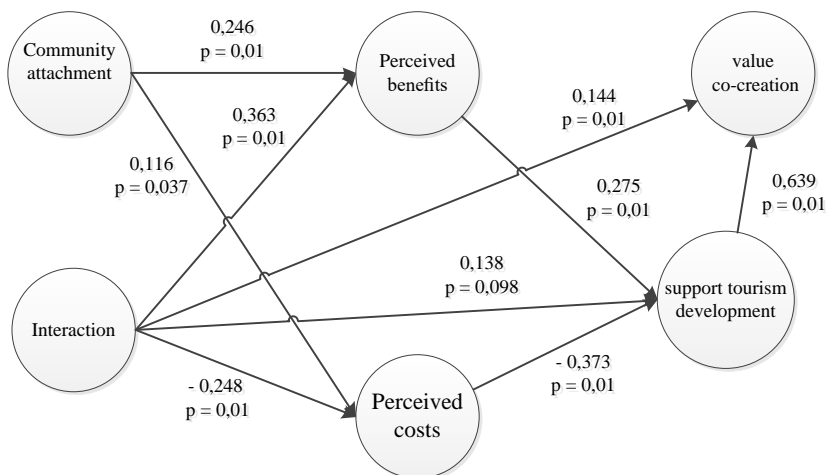
**Figure 2. The structural equation modeling results**

Table 4 shows the estimation results with 95 percent confidence interval. In detail, community attachment was positively related to both perceived benefit ($\beta = 0.246$;

$p = 0.010$) and cost ($\beta = 0.116$; $p = 0.037$). Perceived benefit was positively related to support development ($\beta = 0.275$; $p = 0.010$) and perceived cost was negatively related to support development ($\beta = -0.373$; $p = 0.010$). Interaction was positively related to perceived benefit ($\beta = 0.363$; $p = 0.010$) and negatively related to perceived cost ($\beta = -0.248$; $p = 0.010$). Value co-creation is influenced by interaction ($\beta = 0.144$; $p = 0.010$) and support development ($\beta = 0.639$; $p = 0.010$). The hypothesis H_6 was rejected because the construct did not have any significant causal relationship with support development ($p = 0.098 > 0.050$).

Table 4. Estimation results with 95 percent confidence interval

Correlation			Estimate	Lower	Upper	P
Perceived benefit	←	Interaction	0.363	0.192	0.527	0.010
Perceived cost	←	Interaction	-0.248	-0.376	-0.142	0.010
Perceived benefit	←	Community attachment	0.246	0.093	0.370	0.010
Perceived cost	←	Community attachment	0.116	0.009	0.247	0.037
Support	←	Perceived benefit	0.275	0.147	0.394	0.010
Support	←	Perceived cost	-0.373	-0.477	-0.258	0.010
Support	←	Interaction	0.138	-0.031	0.285	0.098
Value co-creation	←	Support	0.639	0.545	0.726	0.010
Value co-creation	←	Interaction	0.144	0.044	0.250	0.010

The results of direct, indirect, and total impacts on the dependent variables are presented in Table 5. Interaction has a direct and indirect impact on support and value co-creation. However, the indirect effect is greater than the direct impact on both. The attitude toward tourism development has a direct effect and the greatest impact on value co-creation (0.639), followed by interaction (0.355). Community attachment and interaction affect value co-creation through the social exchange model, but the impact of community attachment is negligible (0.024) compared to interaction (0.192).

Table 5. Direct and indirect effects

		Interaction	Community attachment	Attitude toward tourism development
Attitude toward tourism development	Direct	0.138	-	-
	Indirect	0.192	0.024	-
	Total	0.330	0.024	-
Value co-creation	Direct	0.144	-	0.639
	Indirect	0.211	0.015	-
	Total	0.355	0.015	0.639

5. CONCLUSIONS

5.1. Discussion and implications

The study aims to integrate and interpret the interaction between tourists and residents, community attachment, and attitudes toward tourism development on value co-creation of residents. The social exchange model plays a crucial role to mediate all of these relationships. The results supported most hypotheses, except hypothesis H₆. The research findings provide empirical evidence for Da Lat city, Lam Dong, Vietnam, by using the social exchange model to explain value co-creation of residents. The empirical data show that the most impactful factor on residents' co-creation value is the residents' attitude toward tourism development. This means that residents will co-create value in interacting with tourists as long as residents feel the benefits outweigh the costs of tourism development. Service providers and planners need to maximize the benefits and minimize the negative impacts of tourism (Lin et al., 2017) to get the support of residents and encourage value co-creation with tourists. Thus, one of the important implications is that policymakers need to be aware of the favorable environment for people to participate in the process of creating tourism products because residents have the main responsibility for developing tourism and are affected by the apparent or potential conflict level caused by development (Bimonte & Punzo, 2016).

The value co-creation of residents is also affected directly and indirectly by interaction. Thus, interaction is the foundation of value co-creation (Vargo & Lusch, 2004), and the interaction's quality directly affects the perception of residents' benefits and costs, thereby indirectly affecting the support and value co-creation of residents. However, the exception, hypothesis H₆, suggests the absence of a statistically significant (95% significance level) association between tourist-resident interactions and the residents' attitudes toward tourism development ($p = 0.098$). This result is different from the previous finding of Eusébio et al. (2018) that the interaction has a strong impact on the attitude toward tourism development. The difference in the research context could be a cause for this difference, and one of the reasons for this phenomenon is the negative impact of excessive tourism development on the environment in Da Lat. Residents feel the negative effects in the interaction process with tourists, so they will not have a favorable attitude to tourism development. Therefore, the authors suggest that the relationship will need more research in other contexts in the future.

This study found that community attachment has a relationship with the perceived benefits and costs of residents, a result similar to that of Loots et al. (2012). Thus, residents with a high degree of community attachment tend to perceive both the positive and negative impacts of tourism development. Furthermore, community attachment also has an indirect impact on support and value co-creation, although the level of impact is not as large as the other factors. From a management perspective, the local government should invest more resources in the community to increase community attachment, such as organizing community activities to preserve local cultural values, improving the quality of life for residents, and developing community infrastructure. As residents' community attachment increases from the investments in tourism development, residents

will have a supportive attitude toward tourism development and wish to create new value in local tourism products.

5.2. Limitations and further research

Research scales are taken and developed from previous empirical studies on tourism. The research model focuses on only three aspects: attitudes towards tourism development, community attachment, and interaction with tourists. It did not include other constructs such as residents' experiences and the motivations that encourage residents to participate in the interaction process with tourists. The study also did not show the possible outcome of residents' value co-creation. Therefore, future studies should investigate the impact of residents' value co-creation on local policies as well as tourism activities.

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APPENDIX

Community attachment	
1	Satisfaction with the community
2	How much do you feel at home in this community?
3	Knowing what goes on in the community.
4	How sorry or pleased would you be if you move away?
Interaction	
5	I have developed a friendship with tourists.
6	My interactions with tourists are positive.
7	I enjoy interacting with tourists.
Perceived benefits	
8	The positive tourism impacts on standard of living.
9	Employment opportunity.
10	Improved infrastructure.
11	Increased investment.
12	Revenues for local governments.
Perceived costs	
13	tourism impacts on crowding.
14	tourism impacts on traffic congestion.
15	tourism impacts on noise.
16	tourism impacts on environmental pollution.
The attitude toward tourism development	
17	I support tourism and want to see it remain important to Da Lat.
18	I believe tourism should be actively encouraged in Da Lat.
19	Da Lat should support the promotion of tourism.
20	I support new tourism facilities that will attract new visitors to Da Lat.
21	Da Lat should remain a tourist destination.
22	In general, the positive benefits of tourism outweigh negative impacts.
23	The tourism sector will continue to play a major role in Da Lat's economy.
24	It is important to develop plans to manage the growth of tourism.
25	Long-term planning by Da Lat can control negative environmental impacts.
Value co-creation	
26	I treated tourists with high esteem.
27	I provided tourists with useful information, such as transport, attractions, restaurants, hotels, and others.
28	I provided tourists with information on our way of life, traditional culture, and history.