A complexity perspective for antecedents of support for tourism development

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A complexity perspective for antecedents of support for tourism development

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Abstract

Purpose – In this study, the effects of negative tourism impacts, length of residency and nativity on support for tourism development were examined.

Design/methodology/approach – Because understanding the attitudes of local people toward tourism support is complex, this study employed both symmetric (PLS-SEM) and asymmetric (fsQCA) approaches from a holistic perspective. A total of 336 individuals from Cappadocia, one of Turkey's most prominent tourist destinations, were surveyed.

Findings – According to the symmetric method results, respondents' negative perceptions of tourism negatively affect attitudes toward tourism support. Native-born status acts as a moderating variable in the relationship between attitudes toward tourism support and the negative economic impacts of tourism. On the other hand, this study shows that the complex interactions of nativity and the negative impacts of tourism directly affect local people's attitudes toward tourism support.

Practical implications – This study revealed that practitioners should adopt a comprehensive perspective to understand the attitudes of local people toward tourism support.

Originality/value – This study, in addition to the findings obtained via the symmetric method, reveals the complex interaction of the negative impacts of tourism, thus providing a roadmap to improve local people's attitudes toward tourism support by using asymmetric modeling.

Keywords Negative tourism impacts, Tourism support, Length of residence, Nativity, Cappadocia, Complexity theory

Paper type Research paper

1. Introduction

As a primary industry of the global economic system, more than 270 million people work in tourism-related business and more than 1 billion people are involved in tourism. Looking at recent data makes the importance of tourism even more understandable. In 2019, the total GDP contribution of tourism was 10.4%. Even though this rate dropped to 5.5% in 2020 due to the negative impacts of COVID-19 (WTTC, 2020), such a robust sector will inevitably thrive in the long run. Despite the increasing growth and momentum of global development, tourism requires the support of residents. In other words, it is hard to conceive of tourism development that is not supported by residents (Choi and Murray, 2010; Sautter and Leisen, 1999). Residents' support of tourism is needed more than ever, especially in today's global economy.

The COVID-19 pandemic, responsible for the deaths of millions of people, has negatively impacted the tourism sector, which tends to rely on human smobility (Shaw *et al.*, 2020).

At this point, it is critical to reinterpret tourism with the assumption that the COVID-19 pandemic offers an invaluable opportunity to review the industry's activities (Higgins-Desbiolles, 2020) and think about tourism support accordingly. Therefore, although how the negative impacts of tourism are perceived is important, considering the current pandemic conditions, the role of these impacts in tourism support constitutes a worthy research topic (Çalışkan and Yeşilyurt, 2021). This study focuses on the interaction between these variables by considering the length of residency and nativity and by using asymmetric modeling.

Tourism has both positive and negative impacts, but attitudes toward support for tourism depend on how those impacts are perceived by residents. According to social exchange theory (Schroeter and Turner, 1979), if the perceived benefit dominates the overall cost following the evaluation of impacts, residents will not resist tourism development and will even tend to support it (Ap, 1992; Perdue et al., 1990; Yoon et al., 2001).

Considering the long-term nature of tourism development, the negative impacts of tourism are more dominant than the positive impacts. The negative impacts include environmental pollution, alteration of local culture and social conflicts, all of which can dampen one's perception of a given destination. Thus, the negative impacts of tourism demand "forced" attention to the rehabilitation of potential problems of the destination and sustainable tourism development (Mathew and Nimmi, 2021; Tsai et al., 2016). According to Lundberg (2015), while the positive impacts of tourism are perceived in the early period, the negative impacts occur in later stages, and it is observed that this negative perception is dominant in the stagnation and decline of tourism development. At this point, it is important to get feedback from as many stakeholders as possible regarding the decision-making and implementation of tourism policies (Karakuş and Çoban, 2018), and residents should be actively involved in these processes (Simmons, 1994; Tosun, 2006). As Bichler (2021) emphasized that: "... it is essential to collaborate with local residents to design structures, processes and to assign responsibilities to entities capable of steering tourism governance" (p. 9). Referring to the undeniable importance of inter-relationships between stakeholders in a tourism destination in building destination success (McLeod, 2020), successful management of residents' negative tourism perceptions is needed. If it is determined that local people have negative perceptions of tourism, and the importance of these perceptions is revealed, management of this perception may become more viable for destination stakeholders. Therefore, one must also attract the attention of those very stakeholders (destination management organizations, government agencies, investors, etc.) by emphasizing the effect of local people's attitudes on tourism development. With that in mind, it behooves decision-makers to consider local people's concerns when drawing up optimal plans, policies and strategies for tourism development. By taking into account local people's concerns and producing solutions, tourism can be supported through the elimination of negative perceptions. Therefore, residents' attitudes toward tourism support can only be ensured if destination management organizations consider residents both as stakeholders (Sheehan and Ritchie, 2005) and as vital components of the tourism product itself (Smith, 1994).

As mentioned earlier, residents' negative tourism perceptions reduce support for tourism development (García et al., 2015; Lankford and Howard, 1994). However, to understand local tourism support in more detail, demographic factors can be functional in understanding behavioral trends (Mattson and Ruther, 2012; Okumus et al., 2021), attitudes (Marafa and Tung, 2004) and social embeddedness (Bowker, 1983). At this point, it is useful to better understand residents' perceptions of tourism impacts and their attitudes toward tourism support while examining demographic factors in this context. The extant literature is filled with attempts to delineate links between the demographics of residents and tourism development by focusing on variables such as gender, age and length of residence (Stojković et al., 2020). In consideration of such factors, it is likely that individuals who started to live in a touristic destination later in their lives (non-native) and those who were born in that

destination (native) perceive tourism impacts differently (Davis *et al.*, 1988). As a key demographic factor, length of residence could lead to different perceptions of the impacts of tourism (Pavlić *et al.*, 2020). Despite the importance of demographic characteristics when developing tourism plans and policies, local administrations and practitioners routinely ignore them. But because demographic factors have such a strong correlation with trust in public practices (Christensen and Lægreid, 2005), in the current study, first the relationship between residents' perceptions of negative tourism impacts and their support for tourism development was tested; second, the effects of length of residency and native vs non-native characteristics on this relationship were examined. Finally, the moderating effects of length of residence and native vs non-native on the relationship between perceptions of negative tourism impacts and the attitude of supporting tourism development were examined.

It should be noted here that, in social science, it is not possible to build every predicted situation on linear causality (Gibbon *et al.*, 2002). In a specific region, the reasons for the occurrence of positive tourism behavior in individuals may not contrast with the causes of negative behaviors. Similarly, those dynamics might not carry over into another situation (Olya *et al.*, 2019; Urry, 2005), thus requiring more complex analysis. In this context, such a dynamic requires that the components involved be systematically combined and that the gaps between them are properly filled (Neuman, 2010). It is not enough to understand the outcome variables (e.g. support for tourism development) by examining the "net effects" of the antecedents. This situation may lead to a misinterpretation of the findings (Olya and Akhshik, 2019). One of the main reasons for this situation is that the social phenomenon investigated has complex structures (Overman, 1989). For this reason, explaining and understanding the social phenomenon involved is a complex task as it requires a more detailed analysis and evaluation of the relationships at hand (Levermore and Beacom, 2012). Moreover, more comprehensive and complex models are needed to understand the results. However, in the literature, studies examining local people's attitudes toward supporting the development of tourism from this perspective are scant (e.g. Olya and Gavilyan, 2017). On the other hand, when considering existing studies, it is foreseen that this issue should be addressed with respect to tourism dimensions. Therefore, the present study examines the negative effects of tourism according to its sub-dimensions and analyzes the role of each dimension in tourism support on the basis of demographic variables to fill this research gap. In general terms, this study aims to determine the recipe for the optimum interaction between variables (demographic factors and environmental, sociocultural and economic dimensions) and the tourism support of local people. Accordingly, by understanding the shaping of the attitudes of local people toward supporting the development of tourism, an application was made using a fuzzy-set qualitative comparative analysis (fsQCA), taking into account the complexity theory. It should be noted that "the complexity theory is useful in finding out asymmetrical conditions which are unable to manifest in multi-regression analysis" (Cheng *et al.*, 2016, p. 5,207) and understanding complex behavior and motivations in social systems (Rook and McManus, 2016). Thus, this study has made a significant contribution to the literature in terms of understanding the relationship between local people's perceptions regarding negative tourism impacts and their demographic features within the framework of the complexity approach. The research results will be valuable for decision-making and strategy development processes regarding tourism activities in the region.

2. Literature review
2.1 Negative tourism impacts and support for tourism development
Tourism is a complicated industry with a wide range of stakeholders. Local people (residents) comprise one of the most important stakeholders for the success of tourism activities (Andriotis, 2005; Byrd *et al.*, 2009). Indeed, success in tourism is inconceivable without local

support. In other words, one of the prerequisites for success in tourism is residents' positive attitudes toward tourism (García *et al.*, 2015). Therefore, understanding residents' perceptions of the impacts of tourism provides realistic insight into evaluating support for tourism development. That being said, while residents who perceive the effects of tourism positively are more likely to support tourism, those who perceive these effects negatively are less likely to support tourism (Ribeiro *et al.*, 2020).

Until the 1960s, tourism impacts were mostly examined from a positive point of view (Mathieson and Wall, 1988). Negative impacts started to be examined later (Rutty *et al.*, 2015). In general, tourism impacts have been examined under three main categories: economic, sociocultural and environmental (Andereck *et al.*, 2005; García *et al.*, 2015; Liu and Var, 1986).

Tourism has different outcomes, of which economic impact is an important dimension. Tourism's economic impacts can be examined from two aspects: the tourists themselves and the regions where tourism activities are carried out. For the regions where tourism activities are carried out, tourism has direct contributions such as household income, government revenue, employment and business turnover (Archer *et al.*, 2005), as well as contributions from secondary and multiplier effects. It is also possible to address the negative impacts of tourism. The dependence of a regional economy on tourism, the hindering of the development of other sectors in the region, increased employment of foreigners, and increased regional prices are some economic reasons underlying negative perceptions of tourism (Šegota *et al.*, 2017). Similarly, other impacts of tourism are perceived negatively by residents (Liu *et al.*, 1987), especially sociocultural impacts such as racism, relocation of traditional communities, breaking up of the traditional family structure, crowded environments and traffic jams (Dyer *et al.*, 2007), social tension, and increased crime rates (Andereck *et al.*, 2005; Mbaiwa, 2003). Environmentally speaking, the demolition of natural resources and pollution can lead to negative perceptions (Dyer *et al.*, 2007; Nepal, 2008). In this context, economic gains provide a benefit for both local people and external actors, while the negative consequences of these gains affect more local people. Therefore, the cost of economic gains from tourism should not be more than the social costs incurred by local people (Doe *et al.*, 2021).

Considering the above-mentioned impacts of tourism, residents with negative tourism perceptions are very unlikely to support tourism development (Nunkoo and Gursoy, 2012). As a matter of fact, the studies carried out by Besculides *et al.* (2002), Haralambopoulos and Pizam (1996), Nunkoo and Gursoy (2012) and Teye *et al.* (2002) show that residents' perceptions of negative tourism directly and negatively impact attitudes toward tourism development. Hence the first three hypotheses of the current study:

H1. Residents' perceptions of tourism's negative economic impacts affect their attitudes toward supporting tourism development in a negative and significant way.

H2. Residents' perceptions of tourism's negative environmental impacts affect their attitudes toward supporting tourism development in a negative and significant way.

H3. Residents' perceptions of tourism's negative socio-cultural impacts affect their attitudes toward supporting tourism development in a negative and significant way.

2.2 Length of residence and native vs non-native status as moderating variables
The fundamental question regarding the relationship between tourism impacts and attitude toward supporting tourism development is which factors affect residents' perceptions of negative tourism impacts. According to Peters *et al.* (2018), negative tourism impacts are not perceived similarly in every part of the local community. Therefore, solely identifying residents' perceptions of tourism impacts would not be sufficient to ensure sustainable and successful tourism activities. The factors that affect these perceptions should be identified as well. In this regard, as mentioned earlier, one of the most important of these factors is the length of

residency. As Sampson (1988) emphasized, length of residency influences local individuals' attitudes and behaviors. To support this argument, it can be claimed that long-established locals are more deeply invested in the community (McCool and Martin, 1994) and that individuals with strong community ties perceive negative tourism impacts more than others (Andereck *et al.*, 2005; McGehee and Andereck, 2004). In contrast, the environmental impacts of tourism are important for every individual within a community. This makes the environment an important tourism resource; thus, its protection and management are of vital importance both for the future of the tourism industry and for society at large (Green *et al.*, 1990).

Several researchers have tested the assumption that length of residency could be determinative of residents' perceptions of tourism impacts (Brougham and Butler, 1981; Davis *et al.*, 1988; Liu and Var, 1986; Williams *et al.*, 1995) and tourism support (Man Cheng *et al.*, 2021). Moreover, length of residency can be a moderator among these variables (Lee *et al.*, 2020). Unlike other studies, the current study examines whether the variable in question has a moderating impact on the relationship between negative tourism impacts and support for tourism development. Accordingly, length of residency is expected to play a determinative role in how residents' perceptions of negative tourism impacts direct their attitudes toward supporting tourism development. Thus:

H4. The effect of tourism's negative environmental impacts on support for tourism development is more determinative for individuals with longer residency in the region.

H5. The effect of tourism's negative economic impacts on support for tourism development is more determinative for individuals with shorter residency in the region.

H6. The effect of tourism's negative socio-cultural impacts on support for tourism development is more determinative for individuals with longer residency in the region.

Another factor that can alter residents' perceptions of tourism impact is nativity. Native-born individuals residing in the region where tourism activities are carried out could have more intense perceptions of negative tourism impacts (Davis *et al.*, 1988). Indeed, native residents' rate of place attachment is higher than that of non-natives (Hernández *et al.*, 2007; Sheldon and Var, 1984). In this regard, native residents are likely to perceive tourism impacts in a more sensitive way (Alam, 2011; Dou and Day, 2020). Xie *et al.* (2014) indicated that residents, based on being native or non-native to the region, have different levels of satisfaction with tourism impacts. For instance, certain negative sociocultural impacts are perceived negatively by native residents, whereas non-native residents perceive the same impacts positively. In other words, based on the sense of belonging, nativity may be determinative for how residents' perceptions of negative tourism impacts affect their attitudes toward support for tourism development (Sinclair-Maragh, 2017). However, at this point, there is an issue that should be noted regarding the economic effects. It is known that there are people who settled from other regions precisely because they were attracted by the intense tourism activities in the region (Karabacak, 2019). As these people earn money from their tourism activities, they may be more sensitive to economic impacts. Natives may not be as sensitive to the economic effects of tourism as their non-native counterparts because native residents are more likely to earn income from sectors other than tourism. Nevertheless, within the scope of the length of residency, every individual, native and non-native, has similar sensitivities regarding the environmental impacts of tourism.

H7. The effect of perceptions of tourism's negative environmental impacts on attitudes of support for tourism development is more determinative for native individuals.

H8. The effect of perceptions of tourism's negative economic impacts on attitudes of support for tourism development is more determinative for non-native individuals.

H9. The effect of perceptions of tourism's negative socio-cultural impacts on attitudes of support for tourism development is more determinative for native individuals.

2.3 Complexity approach to support for tourism development

In social research, individuals' responses to any subject are based on the complex interactions of various indicators that may clarify their behavioral intentions (Mehran and Olya, 2020; Tosun *et al.*, 2021). From this perspective, the relationships between the variables determined in the current research are nonlinear and may lead to a range of effects despite sharing the same cause (Urry, 2005). On the other hand, due to the necessity of complex decision making (Hsu *et al.*, 2009), the asymmetric relationship between the variables needs to be tested (Woodside, 2014). This perspective also applies to the analysis of its support for tourism development in a destination. According to Yoon *et al.* (2001), understanding the reactions of local people to tourism development and the factors affecting these reactions is very important for bolstering local people's support of tourism development. However, it is difficult to understand the relationships between these factors, necessitating a detailed analysis. Frankly, the general structure of the tourism system is complex (Wattanacharoensil and Stettler, 2019), making it difficult to define the unpredictable, dynamic and adaptive nature of tourism. Here, models based on complexity theory offer models for adapting to such internal and external changes (Speakman and Díaz Garay, 2016). Combining asymmetrical modeling with complexity theory enables a sufficient configuration of factors (Mehran and Olya, 2020) to predict the tourism support attitudes of residents.

Because support for tourism development is a complex issue, the attitudes of residents should be taken into account (Nunkoo and Gursoy, 2012) in an asymmetric way. Defining and predicting social events based on complexity theory is different from traditional research approaches. The proposed model, using the complexity theory, provides a broader insight into the interaction and combination of causality antecedents (Olya and Altinay, 2016). Thus, this study draws on "complexity theory" to evaluate the combined and variational relationship between negative economic impact, negative environmental impact, negative sociocultural impact, nativity versus non-nativity and attitudes of support for tourism development (see Figure 1). Complexity theory focuses on how patterns with many sub-variables can lead to well-organized and predictable behaviors (Baggio, 2008), thus offering "recipe antecedent conditions and recipe outcome conditions that describe, explain, and predict cases high and cases low" (Isaksson and Woodside, 2017, p. 186). Here, a recipe is given for the optimum interaction between these variables to have the strongest possible impact on tourism support.

In light of the above literature review, the following models were developed. In Figure 1, a structural model was developed and the net effect was examined. In Figure 2, a configurational model, which allows us to investigate asymmetric relationships, was developed and analyzed via fuzzy-set qualitative comparative analysis (fsQCA).

3. Methodology

3.1 Instrument

Research data were collected via questionnaires, in which negative tourism impacts were examined under three dimensions (environmental, economic and sociocultural impacts) and measured with 14 items. The scale of negative tourism impacts was adapted from Šegota *et al.*'s study (2017). Negative environmental impact, negative economic impact and negative sociocultural impact were examined using four, four and six items, respectively.
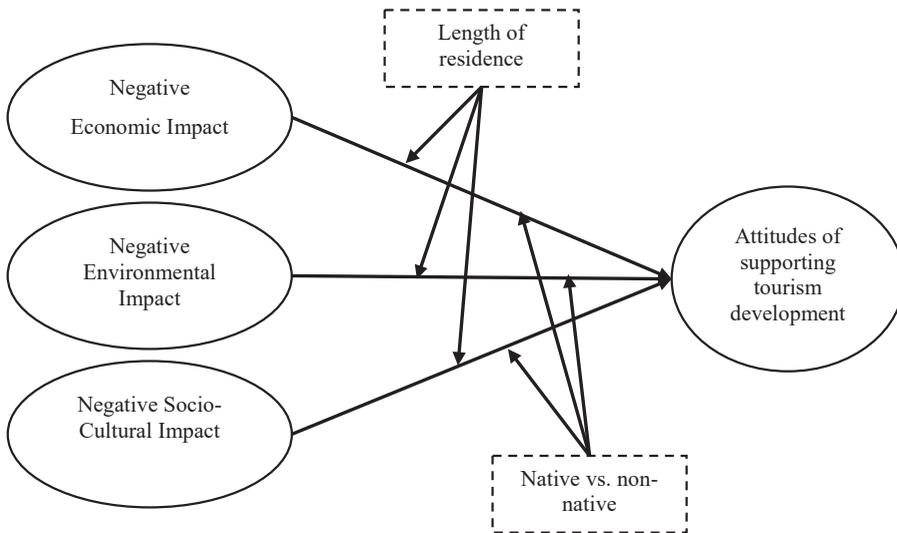
Figure 1.
Proposed
structural model
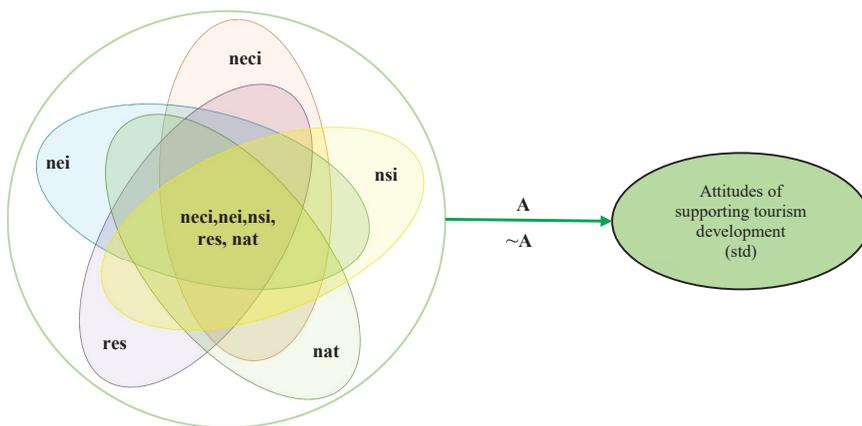
Note(s): neci: Negative economic impact; nei: Negative environmental impact;
nsi: Nega-tive socio-cultural impact; res: Length of residence; nat: Nativity
A= std = *f*(neci, nei, nsi, res, nat)
~ A= std = *f*(neci, nei, nsi, res, nat)

Figure 2.
Proposed
configurational model

The scale of support for tourism development was adapted from Látková and Vogt's study
(2012). Support for tourism development was measured with four items. All items were rated
on a five-point Likert-type scale ranging from 1 = "strongly disagree" to 5 = "strongly
agree." Additionally, items for age, gender, educational level, length of residency and nativity
were included to collect data on residents' demographic characteristics. The back-translation
procedure has been used to translate the questionnaires into Turkish (Brislin, 1976).

3.2 Data collection and sampling

The research population was composed of local people residing in Cappadocia, one of the most important and oldest tourist destinations in Turkey (Özen, 2021; Taheri *et al.*, 2018). Cappadocia is a vast area, extending toward the Toros Mountains in the south, Aksaray in the west, Malatya in the east, and the shorelines of the Black Sea in the north. Nowadays, Cappadocia encompasses Nevşehir, Aksaray, Niğde, Kırşehir and Kayseri provinces. The area known as "core" Cappadocia, and where the famous chimney rock formations may be seen, includes Uçhisar, Göreme, Avanos, Ürgüp, Derinkuyu, Kaymaklı, Ihlara, and the surrounding environment. For this study, this area was taken to be representative of Cappadocia on the whole. (see Figure 3).

Given its unique appeal, the region is rare in the world (Buyruk and Aydemir, 2022). Tourism activities have been carried out there since the 1950s. Since the 1980s, the government has played an important role in bringing tourism activities to the region. In total, 3,834,134 tourists visited Cappadocia in 2019 (Ministry of Culture and Tourism, 2020). It should be noted that approximately 57% of total tourist arrivals in Cappadocia were international, while 43% were domestic. Despite being an old destination, the region has yet to achieve its full potential (Karakuş and Çoban, 2018). Because residents have engaged with tourism for many years, they are expected to have sufficient levels of experience regarding all impacts of tourism. And yet, local people have limited experience in tourism-related activities (Karameşe, 2014), so the area requires further local support to catch up with the expected development of tourism. In this regard, an eligible research population was identified.

Cappadocia, where this study was conducted, includes destinations connected to more than one province. Although there are some reports at the provincial level, no official information, including demographic characteristics, at the overall Cappadocian level were found. Populations of these destinations, however, are available, and these rates were taken into account in the separation of the sample population.

Data collection was carried out between August and November of 2019, a time of year when relatively more tourists visited the region of interest. Residents were questioned about
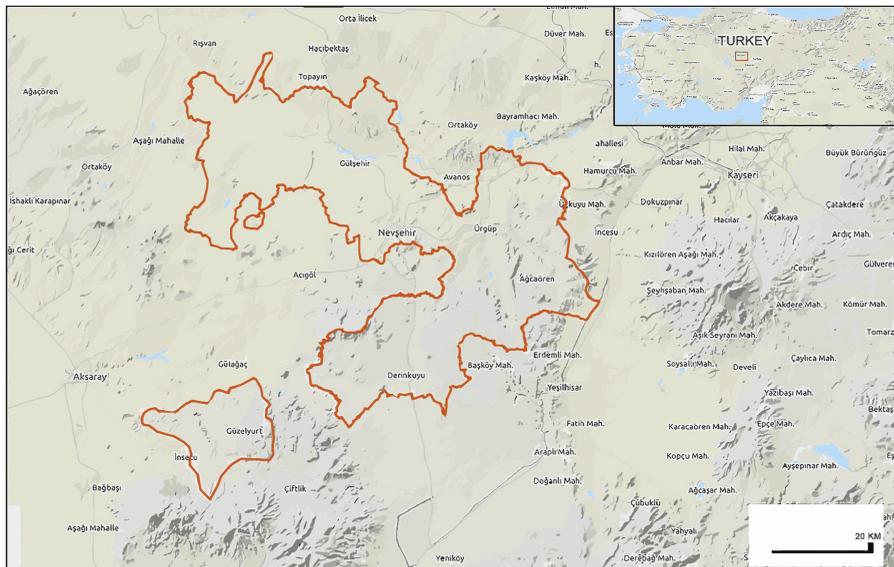

Figure 3.
Study region

Source(s): Generated via openstreetmap.org

the effects of tourism during this peak period of tourism activities on the assumption that they would give more consistent answers.

The research population consists of approximately 240,000 people (Turkish Statistical Institute, 2020). Because it is not possible to reach the entire population, data were obtained from a sample. The sub-destinations within the study region were determined by the judgmental sampling technique. The participants were then selected using convenience sampling. Questionnaires were conducted by five interviewers who were PhD candidates. Interviewers were trained in how to properly administer the questionnaires. The prepared measurement tool was piloted with 20 participants and no problem was encountered.

Questionnaires were distributed to households who agreed to participate, and the sample was extended to those who refused to participate in line with the general research population. There were some difficulties in this process, as residents were not always home. In such cases, a copy of the questionnaire was left behind along with the request that the household complete and return it to the office of the neighborhood "headman" on each street. In some cases, data collection could not be performed due to inaccurate timing. These households were revisited whenever available. All told, 336 questionnaires were collected. The question of whether this amount was sufficient to test the model was tested with G*Power (Faul *et al.*, 2009). G*Power determines the required minimum sample size for a study while avoiding disturbances of statistical significance. According to G*Power, the required minimum sample size under these criteria is 99 with a significance level of 0.05, effect size of 0.15, and statistical power of 0.90. However, to create a more consistent model, it may be useful to reach two or three times the required minimum sample size (Ringle *et al.*, 2014). Therefore, the sample size of 336 shows sufficient statistical power.

3.3 Data analysis

Data collected within the scope of the current study were subject to a screening process. In this process, missing values were checked. The steps recommended by Hair *et al.* (2017a) were followed to identify missing values and the correct method. For this purpose, the mean substitution method was used and the missing values were attributed accordingly. Second, Mahalanobis distance was examined to determine outliers. No outliers were determined (Mahalanobis D (18) 75.84150, $p < 0.001$) (Hair *et al.*, 2013). Skewness and kurtosis values were examined to check for a normal distribution. The normal distribution assumption was met, since that skewness (-0.849, 0.837) and kurtosis (-1.547, -0.418) values did not exceed the recommended values (Kline, 2011). The data were collected in a single period via the same questionnaire in this study. Considering that common method bias (CMB) is the main source of measurement error leading to misleading conclusions in such cases (Podsakoff *et al.*, 2003), CMB was examined using Harman's single-factor test. It was determined that a total of four factors accounted for 78.02% of the variance. Among those, the first factor explained 35.38% of the variance. Because the first factor did not account for most of the variance, there is no serious CMB for this study.

The proposed structural model (see Figure 1) in the present study was tested with partial least squares structural equation modeling (PLS-SEM). There are several key reasons for the choice of PLS-SEM. First, while examining the moderating effects of length of residency and nativity, there were fewer respondents in the groups of these variables. Nevertheless, PLS-SEM minimizes errors that could result from a reduction in sample size. Therefore, PLS-SEM was preferred to minimize these errors. Second, data in the current study were obtained through an ordinal (Likert) scale. Hair *et al.* (2017b) indicated that PLS-SEM possesses fewer limitations and can be utilized in studies for which ordinal scales are preferred. Due to the above-mentioned reasons, PLS-SEM was used in the current study. A bootstrap resampling technique considering 5,000 subsamples was used to determine the level of significance

(Hair *et al.*, 2017a). PLS-SEM was performed using SmartPLS 3.2.8 (Ringle *et al.*, 2017). To examine the moderating effects of length of residency and nativity, PLS multi-group analysis (PLS-MGA) was used. To compare path coefficients in PLS-MGA groups, measurement invariance was first established. At this point, the measurement invariance of composite model (MICOM) method recommended by Henseler *et al.* (2016) was used before the PLS-MGA was applied.

The proposed configurational model (see Figure 2) in the current study was examined using fuzzy-set qualitative comparative analysis (fsQCA), which deals with these configurations asymmetrically. At the same time, we examined configurations of different conditions (e.g. negative impacts of tourism) that could yield an output variable (e.g. support for tourism development) (Olya and Akhshik, 2019; Pappas *et al.*, 2016). As emphasized by Ragin (2008), relations in the social sciences have complex and asymmetrical structures. Therefore, an output in reality (e.g. support for tourism development) can be expected to occur as the result of combinations of different causal conditions with asymmetrical relationships (Woodside, 2013). In this context, fsQCA was used to test the configurational model proposed herein. Three steps of fsQCA were performed based on Ragin's (2008) guidelines: (1) calibration of data variables, (2) analysis of the fuzzy truth table algorithm and (3) counterfactual analysis of the causal conditions that lead to outcomes.

4. Findings

4.1 Demographic findings

As seen in Table 1, the majority of the sample (74.1%) is composed of male respondents. High school graduates comprised 54.5% of the sample, and 60.7% have a relative working in the tourism industry. Most respondents are native to Cappadocia. Most respondents have resided in Cappadocia for 15 years or more. Those at or below the age of 33 represented 45.4%, and 64.3% are married.

4.2 Testing of the structural model

PLS-SEM is composed of two steps: a measurement model and a structural model. First, internal consistency, convergent validity and discriminant validity were investigated for the measurement model (Hair *et al.*, 2017a). Table 2 summarizes the results of the measurement model.

As seen in Table 2, the Cronbach's alpha values range between 0.88 and 0.94 while the composite reliability values range between 0.92 and 0.95. In addition, the AVE values are above 0.50. It was observed that the factor loadings of the items were between 0.69 and 0.92. This shows that internal consistency and convergent validity were established. Besides the criterion of Fornell and Larcker (1981), the HTMT (heterotrait-monotrait) rate recommended by Henseler *et al.* (2015) was examined for discriminant validity. As shown in Table 2, because the square root of AVE values was found, in line with Fornell and Larcker's method, to be below the correlations of the relevant variables, discriminant validity was met. Moreover, discriminant validity was established because the HTMT values were below 0.90.

After obtaining valid findings regarding the measurement model, the structural model was tested. During this process, the collinearity problem (variance inflation factor, or VIF), path coefficients (β), determination coefficient (R^2), impact size (f^2) and Stone-Geiser's Q^2 value were examined (Hair *et al.*, 2017a). Table 3 presents these findings. Because the VIF values were below 5, no collinearity problem was found. Second, the path coefficients were examined. As seen in Table 3, all negative tourism impacts affect attitudes of support for tourism development in a negative and significant way. Accordingly, H1, H2 and H3 were supported. The R^2 value shows that 32.6% of the residents' attitudes of support for tourism

Demographic	Group	f	%
Gender	Male	249	74.1
	Female	85	25.3
	Missing	2	0.6
Income from tourism	Direct	31	9.2
	Indirect	88	26.2
	No	214	63.7
	Missing	3	0.9
Working relatives in tourism	Yes	204	60.7
	No	101	30.1
	Missing	31	9.2
Native	Yes	274	81.5
	No	62	18.5
	Missing	–	0
Length of residence	Less than 15 years	62	18.5
	15 years or more	274	81.5
	Missing	–	0
Education	Primary education	43	12.8
	High school	183	54.5
	University	102	30.4
	Missing	8	2.4
Age	25 and younger	48	14.3
	26–33	108	32.1
	34–41	96	28.6
	42–49	68	20.2
	50 and older	15	4.5
	Missing	1	0.3
Marital status	Married	204	64.3
	Single	101	33.0
	Missing	31	2.7
Working on hotel	Yes	110	32.7
	No	213	63.4
	Missing	13	3.9

Table 1.
Demographic findings

development are shaped by negative tourism impacts. The f^2 values show that negative environmental impacts ($f^2 = 0.04$) have a low level of influence on residents' attitudes of support for tourism development, whereas negative economic impacts and negative socio-cultural impacts have a moderate level of influence. The model's predictive power was examined using Stone-Geisser's Q^2 value. Because the Q^2 value is 0.258, the predictive relevance of the model is medium (Hair *et al.*, 2019).

4.3 Testing of the moderating variables
Before proceeding with the PLS-MGA, the MICOM method was applied for every moderating variable. Accordingly, the measurement invariances of the groups of the length of residency and nativity were analyzed. The MICOM method is a three-step process involving (1) configural invariance assessment, (2) the establishment of compositional invariance assessment and (3) an assessment of equal means and variance (Henseler *et al.*, 2016). Steps 1 and 2 were met but Step 3 was not (see Appendix 1). Therefore, full measurement invariance was not established. However, configural and compositional invariance were established; partial measurement invariance was met as well. Because partial measurement invariance was met, PLS-MGA was then applied.

Dimension	Items	Path coefficients	t-values	CR	AVE	Cronbach's alpha
NEcI	Cappadocia is economically over-dependent on only one industry–tourism	0.84	7.784	0.92	0.76	0.90
	Tourism hinders the development of other economic industries in my community	0.87	8.333			
	I'm bothered that tourism increases employment opportunities for foreign labor in Cappadocia	0.90	11.406			
	Tourism increases the cost of living in Cappadocia	0.87	10.958			
NEI	Tourism increases water pollution in Cappadocia	0.90	63.087	0.92	0.73	0.88
	Tourism increases air pollution in Cappadocia	0.91	76.072			
	Tourism development is likely to destroy green areas in Cappadocia	0.91	75.067			
	Tourists pollute Cappadocia with their waste	0.69	14.642			
NSI	Tourism in Cappadocia results in crowding	0.85	43.812	0.95	0.77	0.94
	Tourism decreases the availability of publicly accessible utilities in Cappadocia	0.87	53.504			
	Tourism is likely to increase the crime rate in my community	0.90	80.952			
	Tourism development increases traffic congestion in Cappadocia	0.91	93.169			
	Because of tourism, Cappadocia is over-commercialized	0.87	48.455			
	Increasing tourist numbers are likely to result in conflicts between visitors and residents	0.85	47.144			
STD	Tourism can be one of the most important economic developmental option for Cappadocia	0.92	83.361	0.95	0.82	0.93
	Cappadocia should try to attract more tourists	0.91	71.854			
	Additional tourism would help Cappadocia grow in the right direction	0.92	99.406			
	I support tourism having a vital role in Cappadocia	0.86	39.431			

	NEI	STD	NEcI	NSI
Fornell-Larcker				
NEI	0.872			
STD	−0.164	0.904		
NEcI	−0.051	−0.403	0.856	
NSI	0.027	−0.450	0.203	0.878

Table 2.
Results of the measurement model

	NEI	STD	NEcI	NSI
HTMT				
NEI				
STD	0.161			
NEcI	0.073	0.435		
NSI	0.088	0.480	0.214	

Note(s): STD: Support for tourism development; NEI: Negative Environment Impact; NEcI: Negative Economic Impact; NSI: Negative Sociocultural Impact; CR: Construct Reliability; AVE: Average variance extracted

Table 2.

Relation	Path coefficients	*t*-values	*p*-values	VIF	R^2	f^2	Q^2
NEI → STD	−0.171	3,657	0.000	1.004	0.326	0.04	0.258
NEcI → STD	−0.335	5,940	0.000	1.047		0.16	
NSI → STD	−0.377	7,725	0.000	1.045		0.20	

Note(s): STD: Support for tourism development; NEI: Negative Environment Impact; NEcI: Negative Economic Impact; NSI: Negative Sociocultural Impact

Table 3.
Results of structural model

Table 4 presents the results of the PLS-MGA for the moderating effect of length of residency. These findings show that length of residency is a moderating variable in the relationship between attitudes of supporting tourism development and negative tourism impacts. Negative economic impacts are more determinative for the tourism development-based attitudes of residents who have resided in the region for less than 15 years. Furthermore, length of residency plays a moderating role in the relationship between attitudes of support for tourism development and the negative sociocultural impacts of tourism. In line with these findings, it was observed that negative sociocultural impacts are more determinative for the tourism development-based attitudes of residents who have resided in the region for more than 15 years. Moreover, the perceptions of those who have resided in the region for less than 15 years regarding the negative socio-cultural impacts of tourism do not significantly affect their attitudes of support for tourism development. Therefore, H5 and H6 were supported, while H4 was not supported.

Relation	Length of residence	Path coefficients	*t*	Parametric	Welch-Satterthwait	Supported
NEI → STD	Less 15	−0.170	1.624[NS]	Δβ = 0.003	Δβ = 0.003	No
	More 15	−0.167	2.890**	p = 0.983	p = 0.981	
NEcI → STD	Less 15	−0.655	6.515*	Δβ = 0.382	Δβ = 0.382	Yes
	More 15	−0.273	4.262*	p = 0.008	p = 0.002	
NSI → STD	Less 15	−0.150	1.359[NS]	Δβ = 0.260	Δβ = 0.260	Yes
	More 15	−0.411	7.735*	p = 0.035	p = 0.036	

Note(s): *$p < 0.001$; **$p < 0.01$; [NS]: Not significant; STD: Support for tourism development; NEI: Negative Environment Impact; NEcI: Negative Economic Impact; NSI: Negative Sociocultural Impact

Table 4.
Results of multi-group analysis for the length of residence

The MICOM process was repeated for the moderating effect of nativity. Partial measurement invariance was established for the native vs non-native groups (see Appendix 2). Table 5 summarizes the results of the PLS-MGA applied to analyze the moderating effect of nativity. The findings show that native-born status acts as a moderating variable in the relationship between attitudes of supporting tourism development and the negative economic impacts of tourism. The negative economic impacts are more determinative in non-native residents' attitudes of supporting tourism development. Additionally, it was found that native-born status is a mediator in the relationship between attitudes of support for tourism development and the negative sociocultural impacts of tourism. In line with these findings, negative sociocultural impacts are more determinative on native residents' attitudes of support for tourism development. Moreover, non-native residents' perceptions of the negative sociocultural impacts of tourism do not significantly affect their attitudes of support for tourism development. Therefore, H8 and H9 were supported, while H7 was not supported.

4.4 Fuzzy-set qualitative comparative analysis (fsQCA)

Contrarian case analysis was performed first within the scope of fsQCA. Contrarian case analysis reveals whether the relationships between conditions and outcome are asymmetrical (Woodside, 2014) and whether the relationships in the configurational model based on complexity theory are asymmetric or not. Therefore, Cramér's V was used to examine contrarian cases, which were found to run counter to the main effect between negative economic impact (NEcI) and support for tourism development (STD). A total of 66 contrarian cases were identified. These cases correspond to approximately 20% of the total subject (see Appendix 3). Accordingly, an asymmetric relationship can be expected between antecedent and outcome conditions.

The first step of fsQCA is calibration, by which the values of conditions (negative impacts of tourism) and outcome (support for tourism development) are transformed into fuzzy-set membership scores. According to this calibration process, each continuous variable is transformed into a fuzzy set that is used to indicate the degree of membership of a case to that set. As a result, this study identified the thresholds for full membership (fuzzy score = 0.95), crossover point (fuzzy score = 0.50) and full non-membership (fuzzy score = 0.05) following the cutoffs proposed by Brenes *et al.* (2017). After the calibration process, necessary conditions analysis (NCA) was examined as suggested by Ragin (2008). The necessary conditions analysis determines whether any of the six conditions can be regarded as necessary for causing the outcome. Therefore, it was examined whether a single condition is always present or absent in all cases where the outcome is present (or absent) (Ragin, 2008). Nativity and length of residence are necessary conditions for the presence of STD, and nativity is a necessary condition for the absence of STD, because the consistency threshold exceeds 0.8 (see Appendix 4).

Relation	Nativity	Path coefficients	t	Parametric	Welch-Satterthwait	Supported
NEI → STD	Native	−0.155	2.585*	$\Delta\beta = 0.070$	$\Delta\beta = 0.070$	No
	Non-native	−0.225	2.264*	$p = 0.604$	$p = 0.547$	
NEcI → STD	Native	−0.270	4.222*	$\Delta\beta = 0.345$	$\Delta\beta = 0.345$	Yes
	Non-native	−0.615	5.886*	$p = 0.016$	$p = 0.006$	
NSI → STD	Native	−0.415	7.813**	$\Delta\beta = 0.282$	$\Delta\beta = 0.282$	Yes
	Non-native	−0.132	1.164[NS]	$p = 0.023$	$p = 0.027$	

Note(s): *$p < 0.01$; **$p < 0.05$; [NS]Not significant; STD: Support for tourism development; NEI: Negative Environment Impact; NEcI: Negative Economic Impact; NSI: Negative Sociocultural Impact

Table 5.
Results of multi-group analysis for native vs non-native

The second step of fsQCA is examining the sufficiency of causal combinations. Therefore, the truth table algorithm of fsQCA was used. The truth table consists of all possible combinations of causal sets, with one row for each combination. In other words, the truth table provided a list of combinations of causal antecedent conditions (or sufficient configurations) that led to the outcome condition. The truth table has been refined according to the frequency and consistency criteria. Frequency describes the number of observations for each possible combination. Consistency refers to "the degree to which cases correspond to the set-theoretic relationships expressed in a solution" (Fiss, 2011, p. 402). The cut-off point of frequency should be set higher than one for large-scale samples (e.g. 150 cases or more). Therefore, the cut-off point of frequency was chosen as three. The conservative consistency threshold was chosen as 0.95, greater than the recommended minimum value of 0.80 (Ragin, 2008).

For the third step of fsQCA, counterfactual analyses are examined to refine consistent and sufficient causal configurations for predicting the presence (high) and absence (low) of STD. At this point, as suggested by Ragin (2008), the intermediate solution obtained as a result of the analyses was taken into account. The findings are presented in Table 6.

As seen in Table 6, according to M1, high STD can be provided if local people have been living in the region for less than 15 years, are not native, and perceive the negative impacts of tourism on economic, environmental and sociocultural aspects to be low. This recipe has a consistency of 0.96 and explains a good number of cases (coverage = 0.12). On the other hand, according to M2, the level of STD may increase if local people have been living in the region for less than 15 years and are native. Local people's perception is low regarding tourism's economic and sociocultural negative impacts even if their perception is high regarding tourism's environmental negative impact. According to M3, when local people have been living in the region for less than 15 years and are not native, their perception is high regarding tourism's economic negative impacts, although their perception is low regarding tourism's environmental and sociocultural negative impacts, thus leading to low levels of STD.

The tenets of complexity theory should be examined to defend the complexity structure of the configurational model. According to Urry (2005), the same causes in certain situations can lead to different effects. Therefore, the relationship between each variable may not be expected to be linear. Also, Woodside (2015, p. 103) stated that "configural methods propose that the influence of antecedents on a specific outcome depends on how the antecedents are combined, rather than on the levels of the individual antecedents *per se*." Understanding whether these situations exist is possible by checking the key tenets of complexity theory. Therefore, the results obtained via the configurational model have been examined and evaluated within the scope of key tenets of complexity theory (see Woodside, 2015). First, the necessity-sufficiency tenet of complexity theory was examined. As seen in Table 6, this tenet was met due to the presence of more than one antecedent in both the presence and absence of STD. Second, the recipe principle was examined. As seen in Table 6, the presence of STD is shown by both M1 and M2. These two configurations have a high consistency score. Moreover, because complex antecedent conditions are shown in M1 and M2, the recipe principle tenet was met.

Third, the equifinality tenet of complexity theory was examined. This tenet was supported by obtaining more than one recipe in the formation of both presence and absence of STD. Fourth, the causal asymmetry tenet of complexity theory was evaluated. The configurations that make up the presence and absence of STD are not mirror opposites. Thus, the configurational model supported the causal asymmetry tenet of complexity theory. Fifth, the positive-negative-zero tenet of complexity theory was examined. Perception regarding negative environmental effects in M1 and M2 (see Table 6) plays a role as both presence and absence in the positive formation of STD, thus meeting this tenet as well. In predicting local

High (presence) level of std Recipes	RC	UC	C
M1: ~neci*~nei*~nsi*~res*~nat	0.128618	0.368518	0.964256
M2: ~neci*nei*~nsi*~res*nat	0.109659	0.017893	0.994405
Solution coverage: 0.146511			
Solution consistency: 0.966334			

Low (absence) level of std Recipes	RC	UC	C
M3: neci*~nei*~nsi*~res*~nat	0.144179	0.018260	0.950669
M4: neci*nei*nsi*~res*~nat	0.202954	0.076212	1.00000
M5: neci*nei*nsi*res*nat	0.349416	0.243915	0.942472
Solution coverage: 0.465128			
Solution consistency: 0.963995			

Note(s): RC: Raw coverage; UC: Unique coverage; C: Consistency; std: support for tourism development; nei: negative environment impact; neci: negative economic impact; nsi: negative sociocultural impact; nat: nativity; res: length of residence

Table 6.
Configurations for achieving high (presence) and low (absence) levels of STD

people's support of tourism development attitudes, the complex interaction of the negative impacts of tourism was supported.

5. Conclusion

Considering the general framework of the study and the current pandemic conditions, analyzing residents' perception of tourism impacts is of vital importance for gaining tourism support (Joo *et al.*, 2021; Kamata, 2021; Nunkoo and Gursoy, 2012). Therefore, investigating residents' perceptions of tourism's impacts provides beneficial data for tourism development (Chandralal, 2010; Smith and Krannich, 1998). In the present study, the relationship between perceptions of negative tourism impacts and support for tourism development was investigated, and the effects of length of residency and nativity in this relationship were analyzed. In essence, how long residents have lived in the region can cause them to be more critical of tourism for many reasons (Mantecón and Huete, 2011). Similar differences were found for being native versus non-native to the region. Nevertheless, the actual community that both enjoys ongoing tourism activities and suffers from their consequences is composed of individuals who know the region and reside there (de Kadt, 1979).

Clearly, investigating the positive or negative impacts of tourism within the framework of a region's demographic features can yield more realistic findings. Thus, demography plays a determinative role in the formation or evolution of the supply and demand of tourism via important parameters such as migration mobility, per-capita income, average age, and also the role of women within society (Yeoman and Butterfield, 2011).

6. Implications

6.1 Theoretical implications

This study details the negative effects of tourism with its sub-dimensions and analyzes the interaction of these effects with tourism support on the basis of demographic variables. The second unique aspect of the study is that this dimensional analysis is based on complexity theory and interpreted on this axis. Finally, it also is seen that some of the findings differ from similar studies.

According to the result of the symmetric method, respondents' negative perceptions of tourism's impacts negatively affect their support for tourism development. Negative environmental perceptions affect respondents' support for tourism at a low level, whereas negative economic and sociocultural perceptions affect it moderately. It is known that responses to the negative environmental effects of tourism are more sensitive than responses to other negative effects (Amuquandoh, 2010). This result is thought to deviate from similar research results. There are two important reasons for this situation. First, the natural environment and the area where economic activities are carried out are intertwined. Second, the environment refers to the place where economic and sociocultural events occur in a causal relationship, meaning it does not possess homogeneous features in terms of how tourism utilizes environmental elements (Çalışkan, 2017). In other words, components used in tourism activities such as beaches, the sea, forests, terrain, and water sources are not separate from the resources shared by other sectors or the public (Liu, 2003). From this point of view, it is understood that respondents do not solely associate damage to the environment with tourism. Indeed, environmental problems (e.g. waste, water and air pollution, etc.) observed in the region may result from other sectors (ÇŞB, 2018).

One of the original results of this study was formed on the basis of the native versus non-native variable. For example, in a study conducted in Florida by Davis *et al.* (1988), it is mentioned that native-born residents exhibit a negative attitude toward the development of tourism. It is also mentioned that native-born residents have a high awareness of the negative

economic effects of tourism. People's attitudes toward the development of tourism will be different depending on whether they benefit from indirect or direct tourism. In the current study, it is seen that the non-native resident is more determinative for negative economic effects. As mentioned before, local people have limited interaction with tourism activities. In other words, the interaction of local people with the economic benefits of tourism is relatively limited. However, the region receives a low amount of immigration (Karabacak, 2019). Therefore, it is predicted that non-native people who come to earn income by working in the tourism industry will be more determinative of the negative economic effects of tourism.

Another finding regarding the state of being native-born is that native tourism is a determinative factor for its negative sociocultural effects. Although local people's direct income from tourism activities is limited, they experience the sociocultural effects of that relationship on a one-to-one level. The study region, which is a large part of Anatolian culture, is highly dependent on folk customs and its ability to resist social and cultural phenomena beyond local value judgments. For example, as nightlife spots proliferate with the development of tourism, local people may believe that these businesses will increase the crime rate (Devkota et al., 2020; Gorman et al., 2001).

Williams et al. (1995) stated that those who have lived in the region for a relatively shorter time are more inclined to support tourism. Within the scope of social exchange theory, we can conclude that these people perceive the positive effects of tourism more acutely. However, examining how they perceive tourism for what effect will allow us to make more accurate inferences. It was found, for instance, that economic impacts are more determinative for tourism support among those respondents with shorter residencies (<15 years), whereas sociocultural impacts were more determinative for those who have resided in the region for a longer period (>15 years). In terms of the tourism industry, the main motivation of non-native people settling in the region is likely to be employment. The high sensitivity of these people to the economic effects of tourism should be explained in this way. As stated before, it is a situation specific to the region that native residents do not exhibit the same sensitivity due to the limited interaction of local people with tourism activities. Understandably, natives tend to develop an attitude toward the socio-economic effects to which they are exposed. Both cases indicate a sense of community because it is known that a sense of community affects individuals' support of topics concerning the community (Pretty et al., 1994).

Besides feeling a sense of belonging to their places of residence, individuals with a sense of community are deeply concerned about incidents that influence social life (Prezza et al., 2001). In this context, it is expected that individuals residing in a region for a long time or who were born and grew up in that region are more affected by the negative sociocultural impacts of tourism activities. The economic dimension of tourism embodies a structure that is easily affected by recent developments and creates an expectation of short-term income (Perdue et al., 1990). Thus, for individuals residing in a region with no apparent bonds to the region in question, tourism is perceived as an economic input or cost item, which can be determinative of their support for tourism development.

6.2 Practical implications

Given its global domain, tourism may create a financial burden for the hosting community in addition to its multi-dimensional benefits. By extension, tourism can lead to dilemmas or inspire regarding the hosting community's attitude toward tourism (Qin et al., 2021; Sharpley, 2014). However, communities no longer symbolize the authenticity of a region or generate a heterogeneous image by developing a new structure independent from regional borders (Richards and Hall, 2002). Therefore, tourism impacts can be perceived in different ways, even within the same community (Mason and Cheyne, 2000). This can create challenges during the development and implementation of tourism policies. Demography plays an

effective role in the causal relationship between human behaviors and support for tourism and other social phenomena. Nevertheless, tourism's long-term consequences can cause important changes in a region's demographic characteristics (Pizam and Milman, 1986).

There are successful tourism activities to be realized with the support of residents in ensuring optimal benefits for all stakeholders in the destination. As Brougham and Butler (1981) stated, everyone living in a given society does not perceive the effects of tourism in the same way. Thus, examining the behavior of social segments with similar characteristics can help destination managers and policymakers alike. In line with the findings of this study, the findings of Brougham and Butler (1981) were supported, although differences arose from the unique characteristics of the region.

This study, in addition to the symmetrically obtained findings (e.g. PLS-SEM), has revealed the complex interaction of the negative impacts of tourism to improve the local people's STD attitudes by using asymmetric modeling (fsQCA). For example, the effect of negative sociocultural impacts on STD in symmetric modeling is more decisive for people who have been living in the region of interest for more than 15 years (see Table 5). Attitudes toward STD may positively increase among people who are native and have been living in the region for less than 15 years. The latter are likely to have a low perception of tourism's negative economic and sociocultural impacts, even if their perception is high regarding the negative environmental impacts (see Table 6). The primary contributions of tourism in a region are expected to be sociocultural and economic (Ahmad, 2013). On the other hand, STD attitudes may decrease if the people who are non-native and living in the region for less than 15 years acutely perceive tourism's negative economic impacts, even if their perception is low regarding the negative environmental and sociocultural impacts. Thus, the economy is the main parameter in local people's support of tourism. At this point, the questions in need of answers include whether there will be a long-term balance between tourism development and regional economic growth, what the causal relationship between these two factors might be, and which position tourism will occupy in the regional economy (Kim *et al.*, 2006). For this reason, it can be stated that the problems caused by the negative economic effects are deserving of proper attention. As can be seen, addressing the negative effects of tourism with a complexity approach provides clearer and more practical guidelines for destination management organizations to estimate the local people's STD behavior.

People living in the region where tourism activities take place perceive the effects of tourism differently due to their characteristics. In other words, their tolerance of the negative effects of tourism changes according to the situation of being native or one's length of the duration of living in the region. Considering the tourism destination has a complex structure and consists of various actors based on both mutual relationships and different interests (Woyo and Slabbert, 2019), policymakers should be aware of these differences and take them into consideration while developing plans, policies, strategies and also building coopetition networks in general (Dambiski Gomes de Carvalho *et al.*, 2020).

An example is that the non-native resident is more determinative of the negative effects of tourism. At this point, the source of these negative perceptions should be determined, and mitigation efforts should be carried out accordingly. However, this alone will not be enough. Training may be required for people who are susceptible to adverse effects. It should not be forgotten that tourism has positive as well as negative effects. Creating awareness of the positive effects and explaining the value that should be loaded can change the negative attitudes toward related constructs. Training may be required for people who are sensitive to negative effects.

7. Limitations and future research
Despite the existence of important studies on negative tourism impacts and support for tourism in general, it is necessary to redo these studies on the basis of time-related changes,

demographic features and tendencies, and disruptions such as the COVID-19 pandemic. It would be particularly beneficial to investigate residents' primary tourism expectations and use those data to interpret impact-related perceptions. Moreover, only the nativity properties of residents were investigated in the present study. In other cases, however, the negative effects of tourism may differ depending on residents' gender, age, and education level (Woosnam and Erul, 2017). In addition, there are more job opportunities for tourism-educated people in Turkey. This situation provides a seriously qualified potential workforce (Boğan and Dedeoğlu, 2019). At this point, considering that tourism provides job opportunities for the younger generation, it may be possible for young residents to ignore the negative effects of tourism.

Accordingly, researching only the nativity feature of residents in the relationship between negative tourism impacts and attitudes toward tourism support can be seen as a limitation for this study. At this point, it can be stated that especially in regions such as Cappadocia, where tourism is the basis of economic development, the negative effects of tourism should be specially examined because the tourism sector provides more job opportunities for young residents. For this reason, to better manage the negative effects of tourism, different demographic characteristics of residents could be investigated in future studies and a more in-depth understanding of the relationship between the negative effects of tourism and attitudes toward tourism support could be achieved. In particular, if these studies are carried out by considering the social costs of the COVID-19 pandemic on local people (Qiu et al., 2020), it would help make today's tourism behavior more understandable.

The findings of the current study should be considered specific to Cappadocia. Therefore, future studies can compare different destinations with similar social characteristics where similar tourism activities are carried out. Moreover, this study focused on tourism's negative impacts and tourism support by deliberately ignoring the positive impacts of tourism. Clearly, tourism's positive impacts on residents' perception and implications for further tourism development should be studied by other scholars in tandem with the negative impacts. Although the negative effects of tourism and the perception of local people regarding these effects are quite important, the concerns of the local people should be questioned and focused on when handling this issue. This perspective is recommended for future studies.

References

Ahmad, A. (2013), "The constraints of tourism development for a cultural heritage destination: the case of Kampong Ayer (Water Village) in Brunei Darussalam", *Tourism Management Perspectives*, Vol. 8, pp. 106-113.

Alam, K. (2011), "Public attitudes toward restoration of impaired river ecosystems: does residents' attachment to place matter?", *Urban Ecosystems*, Vol. 14 No. 4, pp. 635-653.

Amuquandoh, F.E. (2010), "Residents' perceptions of the environmental impacts of tourism in the Lake Bosomtwe Basin, Ghana", *Journal of Sustainable Tourism*, Vol. 18 No. 2, pp. 223-238.

Andereck, K.L., Valentine, K.M., Knopf, R.C. and Vogt, C.A. (2005), "Residents' perceptions of community tourism impacts", *Annals of Tourism Research*, Vol. 32 No. 4, pp. 1056-1076.

Andriotis, K. (2005), "Community groups' perceptions of and preferences for tourism development: evidence from Crete", *Journal of Hospitality and Tourism Research*, Vol. 29 No. 1, pp. 67-90.

Ap, J. (1992), "Residents' perceptions on tourism impacts", *Annals of Tourism Research*, Vol. 19 No. 4, pp. 665-690.

Archer, B., Cooper, C. and Ruhanen, L. (2005), "The positive and negative impacts of tourism", in Theobald, W.F. (Ed.), *Global Tourism*, 3rd ed., Elsevier Butterworth-Heinemann, Burlington, p. 561.

Baggio, R. (2008), "Symptoms of complexity in a tourism system", *Tourism Analysis*, Vol. 13 No. 1, pp. 1-20.

Besculides, A., Lee, M.E. and McCormick, P.J. (2002), "Residents' perceptions of the cultural benefits of tourism", *Annals of Tourism Research*, Vol. 29 No. 2, pp. 303-319.

Bichler, B.F. (2021), "Designing tourism governance: the role of local residents", *Journal of Destination Marketing and Management*, Vol. 19, 100389.

Boğan, E. and Dedeoğlu, B.B. (2019), "The influence of corporate social responsibility in hospitality establishments on students' level of commitment and intention to recommend", *Journal of Hospitality, Leisure, Sport and Tourism Education*, Vol. 25, 100205.

Bowker, L.H. (1983), "Marital rape: a distinct syndrome?", *Social Casework*, Vol. 64 No. 6, pp. 347-352.

Brenes, E.R., Ciravegna, L. and Woodside, A.G. (2017), "Taking the complexity turn in strategic management theory and research", in Woodside, A.G. (Ed.), *The Complexity Turn*, Springer International Publishing, Cham, pp. 21-66.

Brislin, R.W. (1976), "Comparative research methodology: cross-cultural studies", *International Journal of Psychology*, Vol. 11 No. 3, pp. 215-229.

Brougham, J.E. and Butler, R.W. (1981), "A segmentation analysis of resident attitudes to the social impact of tourism", *Annals of Tourism Research*, Pergamon, Vol. 8 No. 4, pp. 569-590.

Buyruk, L. and Aydemir, D.A. (2022), "The opinions of hotel managers about halal hotel concept: a research in Cappadocia", *Journal of Multidisciplinary Academic Tourism*, Vol. 7 No. 1, pp. 31-40.

Byrd, E.T., Bosley, H.E. and Dronberger, M.G. (2009), "Comparisons of stakeholder perceptions of tourism impacts in rural eastern North Carolina", *Tourism Management*, Vol. 30 No. 5, pp. 693-703.

Çalışkan, C. (2017), "Sürdürülebilir Turizmin Çevre İkilemi: Toplum ve Tüketim", *İnsan ve Toplum Bilimleri Araştırmaları Dergisi*, Vol. 6 No. 2, pp. 1123-1136.

Çalışkan, C. and Yeşilyurt, H. (2021), "Socio-cultural impacts of the pandemic on tourism: the case of COVID-19", in Demir, M., Dalgıç, A. and Doğanay Ergen, F., (Eds), *Handbook of Research on the Impacts and Implications of COVID-19 on the Tourism Industry*, IGI Global, Hershey.

Chandralal, K.P.L. (2010), "Impacts of tourism and community attitude towards tourism: a case study in Sri Lanka", *South Asian Journal of Tourism and Heritage*, Vol. 3 No. 2, pp. 41-49.

Cheng, L.Y.V., Cai, H.H. and Jin, Z. (2016), "The effect of parental opportunism, IJV's autonomy and tacit knowledge on IJV instability: a comparison of multi-variate regression and fuzzy-set qualitative comparative analysis", *Journal of Business Research*, Vol. 69 No. 11, pp. 5203-5209.

Choi, H.C. and Murray, I. (2010), "Resident attitudes toward sustainable community tourism", *Journal of Sustainable Tourism*, Vol. 18 No. 4, pp. 575-594.

Christensen, T. and Lægreid, P. (2005), "Trust in government: the relative importance of service satisfaction, political factors, and demography", *Public Performance and Management Review*, Vol. 28 No. 4, pp. 487-511.

ÇŞB (Çevre ve Şehircilik Bakanlığı) and ÇŞB (2018), "*Nevşehir İli 2017 Yılı Çevre Durum Raporu*, Nevşehir, available at: http:webdosya.csb.gov.tr/db/ced/icerikler/son2018-nevsehir-icdr-20180910133754.pdf (accessed 23 July 2020).

Dambiski Gomes de Carvalho, G., Alisson Westarb Cruz, J., Gomes de Carvalho, H., Carlos Duclós, L. and Oliveira Corrêa, R. (2020), "Innovativeness and coopetition in tourism SMEs: comparing two coopetitive networks in Brazil", *Journal of Hospitality and Tourism Insights*, Vol. 3 No. 4, pp. 469-488.

Davis, D., Allen, J. and Cosenza, R.M. (1988), "Segmenting local residents by their attitudes, interests, and opinions toward tourism", *Journal of Travel Research*, Vol. 27 No. 2, pp. 2-8.

de Kadt, E.J. (1979), *Tourism - Passport to Development?: Perspectives on the Social and Cultural Effects of Tourism in Developing Countries*, Published for the World Bank and Unesco, Oxford University Press, Washington.

Devkota, N., Paudel, U.R. and Bhandari, U. (2020), "Tourism entrepreneurs' expectation from the provincial government in touristic city – Pokhara, Nepal", *Journal of Hospitality and Tourism Insights*, Vol. 3 No. 3, pp. 329-351.

Doe, F., Preko, A., Akroful, H. and Okai-Anderson, E.K. (2021), "Festival tourism and socioeconomic development: case of Kwahu traditional areas of Ghana", *International Hospitality Review*. doi: 10.1108/IHR-09-2020-0060.

Dou, X. and Day, J. (2020), "Human-wildlife interactions for tourism: a systematic review", *Journal of Hospitality and Tourism Insights*, Vol. 3 No. 5, pp. 529-547.

Dyer, P., Gursoy, D., Sharma, B. and Carter, J. (2007), "Structural modeling of resident perceptions of tourism and associated development on the Sunshine Coast, Australia", *Tourism Management*, Vol. 28 No. 2, pp. 409-422.

Faul, F., Erdfelder, E., Buchner, A. and Lang, A.G. (2009), "Statistical power analyses using G* power 3.1: tests for correlation and regression analyses", *Behavior Research Methods*, Vol. 41 No. 4, pp. 1149-1160.

Fiss, P.C. (2011), "Building better causal theories: a fuzzy set approach to typologies in organization research", *Academy of Management Journal*, Vol. 54 No. 2, pp. 393-420.

Fornell, C. and Larcker, D.F. (1981), "Evaluating structural equation models with unobservable variables and measurement error", *Journal of Marketing Research*, Vol. 18 No. 1, p. 39.

García, F.A., Vázquez, A.B. and Macías, R.C. (2015), "Resident's attitudes towards the impacts of tourism", *Tourism Management Perspectives*, Vol. 13, pp. 33-40.

Gibbon, M., Labonte, R. and Laverack, G. (2002), "Evaluating community capacity", *Health and Social Care in the Community*, Vol. 10 No. 6, pp. 485-491.

Gorman, D.M., Speer, P.W., Gruenewald, P.J. and Labouvie, E.W. (2001), "Spatial dynamics of alcohol availability, neighborhood structure and violent crime", *Journal of Studies on Alcohol*, Vol. 62 No. 5, pp. 628-636.

Green, H., Hunter, C. and Moore, B. (1990), "Assessing the environmental impact of tourism development: use of the Delphi technique", *Tourism Management*, Vol. 11 No. 2, pp. 111-120.

Hair, J.F., Black, W.C., Babin, B.J. and Anderson, R.E. (2013), *Multivariate Data Analysis*, Vol. 7, Pearson, Essex.

Hair, J.F., Hult, G.T.M., Ringle, C.M. and Sarstedt, M. (2017a), *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, 2nd ed., Sage Publication, Thousand Oaks.

Hair, J.F., Matthews, L.M., Matthews, R.L. and Sarstedt, M. (2017b), "PLS-SEM or CB-SEM: updated guidelines on which method to use", *International Journal of Multivariate Data Analysis*, Vol. 1 No. 2, pp. 107-123.

Hair, J.F., Risher, J.J., Sarstedt, M. and Ringle, C.M. (2019), "When to use and how to report the results of PLS-SEM", *European Business Review*, Vol. 31 No. 1, pp. 2-24.

Haralambopoulos, N. and Pizam, A. (1996), "Perceived impacts of tourism: the case of samos", *Annals of Tourism Research*, Vol. 23 No. 3, pp. 503-526.

Henseler, J., Ringle, C.M. and Sarstedt, M. (2015), "A new criterion for assessing discriminant validity in variance-based structural equation modeling", *Journal of the Academy of Marketing Science*, Vol. 43 No. 1, pp. 115-135.

Henseler, J., Ringle, C.M. and Sarstedt, M. (2016), "Testing measurement invariance of composites using partial least squares", in Sinkovics, R. and Jean, R.-J.B. (Ed.), *International Marketing Review*, Vol. 33 No. 3, pp. 405-431.

Hernández, B., Carmen Hidalgo, M., Salazar-Laplace, M.E. and Hess, S. (2007), "Place attachment and place identity in natives and non-natives", *Journal of Environmental Psychology*, Vol. 27 No. 4, pp. 310-319.

Higgins-Desbiolles, F. (2020), "Socialising tourism for social and ecological justice after COVID-19", *Tourism Geographies*, Vol. 22 No. 3, pp. 610-623.

Hsu, T.K., Tsai, Y.F. and Wu, H.H. (2009), "The preference analysis for tourist choice of destination: a case study of Taiwan", *Tourism Management*, Vol. 30 No. 2, pp. 288-297.

Isaksson, L.E. and Woodside, A.G. (2017), "The complexity turn to modeling firm heterogeneity in corporate social and financial performance", *The Complexity Turn: Cultural, Management, and Marketing Applications*, Springer International Publishing, pp. 185-247.

Joo, D., Xu, W., Lee, J., Lee, C.K. and Woosnam, K.M. (2021), "Residents' perceived risk, emotional solidarity, and support for tourism amidst the COVID-19 pandemic", *Journal of Destination Marketing and Management*, Vol. 19, 100553.

Kamata, H. (2021), "Tourist destination residents' attitudes towards tourism during and after the COVID-19 pandemic", *Current Issues in Tourism*. doi: 10.1080/13683500.2021.1881452.

Karabacak, K. (2019), "Nevşehir İlinin Nüfus Özellikleri", in Çiçek, İ. (Ed.), *Memleket Pusulası Nevşehir içinde*, Eski Babil Yayınları, İstanbul, pp. 133-158.

Karakuş, Y. and Çoban, S. (2018), "Evaluation of stakeholders' expectations towards congress tourism by Kano model: case of Nevşehir", *Anais Brasileiros de Estudos Turísticos - ABET*, Vol. 8 No. 2, pp. 8-20.

Karameşe, B. (2014), "Evaluation of the Cappadocia Geopark proposal by the local people", *Unpublished Master's Thesis*, Balıkesir University, Balıkesir.

Kim, H.J., Chen, M.H. and Jang, S.C.S. (2006), "Tourism expansion and economic development: the case of Taiwan", *Tourism Management*, Vol. 27 No. 5, pp. 925-933.

Kline, R.B. (2011), *Principles and Practice of Structural Equation Modeling*, Guilford Press, New York.

Lankford, S.V. and Howard, D.R. (1994), "Developing a tourism impact attitude scale", *Annals of Tourism Research*, Vol. 21 No. 1, pp. 121-139.

Látková, P. and Vogt, C.A. (2012), "Residents' attitudes toward existing and future tourism development in rural communities", *Journal of Travel Research*, Vol. 51 No. 1, pp. 50-67.

Lee, D., Kim, S., Han, H. and Wong, A.K.F. (2020), "Casino tourism development is blessing or curse? Assessment of casino tourism impacts and suggestions for sustainable casino tourism development", *Asia Pacific Journal of Tourism Research*, Vol. 25 No. 11, pp. 1168-1184.

Levermore, R. and Beacom, A. (2012), "Reassessing sport-for-development: moving beyond 'mapping the territory'", *International Journal of Sport Policy*, Vol. 4 No. 1, pp. 125-137.

Liu, Z. (2003), "Sustainable tourism development: a critique", *Journal of Sustainable Tourism*, Vol. 11 No. 6, pp. 459-475.

Liu, J.C. and Var, T. (1986), "Resident attitudes toward tourism impacts in Hawaii", *Annals of Tourism Research*, Vol. 13 No. 2, pp. 193-214.

Liu, J.C., Sheldon, P.J. and Var, T. (1987), "Resident perception of the environmental impacts of tourism", *Annals of Tourism Research*, Vol. 14 No. 1, pp. 17-37.

Lundberg, E. (2015), "The level of tourism development and resident attitudes: a comparative case study of coastal destinations", *Scandinavian Journal of Hospitality and Tourism*, Vol. 15 No. 3, pp. 266-294.

Man Cheng, E.N., So, S.I. and Nang Fong, L.H. (2021), "Place perception and support for sustainable tourism development: the mediating role of place attachment and moderating role of length of residency", *Tourism Planning and Development*. doi: 10.1080/21568316.2021.1906740.

Mantecón, A. and Huete, R. (2011), "Sociological insights on residential tourism: host society attitudes in a mature destination", *European Journal of Tourism Research*, Varna University of Management, Vol. 4 No. 2, p. 109.

Marafa, L.M. and Tung, F. (2004), "Changes in participation in leisure and outdoor recreation activities among Hong Kong people during the SARS outbreak", *World Leisure Journal*, Vol. 4 No. 2, pp. 38-47.

Mason, P. and Cheyne, J. (2000), "Residents' attitudes to proposed tourism development", *Annals of Tourism Research*, Vol. 27 No. 2, pp. 391-411.

Mathew, P.V. and Nimmi, P.M. (2021), "Sustainable tourism development: discerning the impact of responsible tourism on community well-being", *Journal of Hospitality and Tourism Insights*, Vol. ahead-of-print No. ahead-of-print, doi: 10.1108/JHTI-02-2021-0052.

Mathieson, A. and Wall, G. (1988), *Tourism: Economic, Physical, and Social Impacts*, Longman Scientific & Technical, Harlow.

Mattson, D.J. and Ruther, E.J. (2012), "Explaining reported puma-related behaviors and behavioral intentions among northern Arizona residents", *Human Dimensions of Wildlife*, Vol. 17 No. 2, pp. 91-111.

Mbaiwa, J.E. (2003), "The socio-economic and environmental impacts of tourism development on the Okavango Delta, north-western Botswana", *Journal of Arid Environments*, Vol. 54 No. 2, pp. 447-467.

McCool, S.F. and Martin, S.R. (1994), "Community attachment and attitudes toward tourism development", *Journal of Travel Research*, Vol. 32 No. 3, pp. 29-34.

McGehee, N.G. and Andereck, K.L. (2004), "Factors predicting rural residents' support of tourism", *Journal of Travel Research*, Vol. 43 No. 2, pp. 131-140.

McLeod, M. (2020), "Understanding knowledge flows within a tourism destination network", *Journal of Hospitality and Tourism Insights*, Vol. 3 No. 5, pp. 549-566.

Mehran, J. and Olya, H.G. (2020), "Canal boat tourism: application of complexity theory", *Journal of Retailing and Consumer Services*, Vol. 53, 101954.

Nepal, S.K. (2008), "Residents' attitudes to tourism in Central British Columbia, Canada", *Tourism Geographies*, Vol. 10 No. 1, pp. 42-65.

Neuman, W.L. (2010), *Toplumsal Araştırma Yöntemleri, Yayın Odası Yayıncılık*, İstanbul.

Nunkoo, R. and Gursoy, D. (2012), "Residents' support for tourism: an identity perspective", *Annals of Tourism Research*, Pergamon, Vol. 39 No. 1, pp. 243-268.

Okumus, B., Fangfang, S. and Dedeoğlu Balıkçıoğlu, S. (2021), "What is the role of demographics in tourists' attitudes towards foods?", *Journal of Gastronomy and Tourism*, Vol. 5 No. 4, pp. 207-220.

Olya, H.G.T. and Akhshik, A. (2019), "Tackling the complexity of the pro-environmental behavior intentions of visitors to turtle sites", *Journal of Travel Research*, Vol. 58 No. 2, pp. 313-332.

Olya, H.G.T. and Altinay, L. (2016), "Asymmetric modeling of intention to purchase tourism weather insurance and loyalty", *Journal of Business Research*, Vol. 69 No. 8, pp. 2791-2800.

Olya, H.G.T. and Gavilyan, Y. (2017), "Configurational models to predict residents' support for tourism development", *Journal of Travel Research*, Vol. 56 No. 7, pp. 893-912.

Olya, H.G., Shahmirzdi, E.K. and Alipour, H. (2019), "Pro-tourism and anti-tourism community groups at a world heritage site in Turkey", *Current Issues in Tourism*, Vol. 22 No. 7, pp. 763-785.

Overman, E.S. (1989), "Continuities in the development of the physical and social sciences: principles of a new social physics", *Knowledge in Society*, Vol. 2 No. 2, pp. 80-93.

Özen, A. (2021), "Text mining in conservation of world heritage sites: case of Göreme National Park and Cappadocia Rocky Sites", *Journal of Multidisciplinary Academic Tourism*, Vol. 6 No. 1, pp. 37-44.

Pappas, I.O., Kourouthanassis, P.E., Giannakos, M.N. and Chrissikopoulos, V. (2016), "Explaining online shopping behavior with fsQCA: the role of cognitive and affective perceptions", *Journal of Business Research*, Vol. 69 No. 2, pp. 794-803.

Pavlić, I., Portolan, A. and Puh, B. (2020), "Segmenting local residents by perceptions of tourism impacts in an urban World Heritage Site: the case of Dubrovnik", *Journal of Heritage Tourism*, Vol. 15 No. 4, pp. 398-409.

Perdue, R.R., Long, P.T. and Allen, L. (1990), "Resident support for tourism development", *Annals of Tourism Research*, Vol. 17 No. 4, pp. 586-599.

Peters, M., Chan, C.-S. and Legerer, A. (2018), "Local perception of impact-attitudes-actions towards tourism development in the urlaubsregion murtal in Austria", *Sustainability*, Vol. 10 No. 7, p. 2360.

Pizam, A. and Milman, A. (1986), "The social impacts of tourism", *Tourism Recreation Research*, Vol. 11 No. 1, pp. 29-33.

Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y. and Podsakoff, N.P. (2003), "Common method biases in behavioral research: a critical review of the literature and recommended remedies", *Journal of Applied Psychology*, Vol. 88 No. 5, pp. 879-903.

Pretty, G.M.H., Andrewes, L. and Collett, C. (1994), "Exploring adolescents' sense of community and its relationship to loneliness", *Journal of Community Psychology*, Vol. 22 No. 4, pp. 346-358.

Prezza, M., Amici, M., Roberti, T. and Tedeschi, G. (2001), "Sense of community referred to the whole town: its relations with neighboring, loneliness, life satisfaction, and area of residence", *Journal of Community Psychology*, John Wiley & Sons, Vol. 29 No. 1, pp. 29-52.

Qin, X., Shen, H., Ye, S. and Zhou, L. (2021), "Revisiting residents' support for tourism development: the role of tolerance", *Journal of Hospitality and Tourism Management*, Vol. 47, pp. 114-123.

Qiu, R., Park, J., Li, S. and Song, H. (2020). Social costs of tourism during the COVID19 pandemic, *Annals of Tourism Research*, Vol. 84, pp. 1-14, doi: 10.1016/j.annals.2020.102994.

Ragin, C.C. (2008), *Redesigning Social Inquiry: Fuzzy Sets and Beyond*, The University of Chicago Press, Chicago.

Ribeiro, M.A., Kim, Y.H. and Woosnam, K.M. (2020), "Residents' perception and their support for tourism development: the case of South Korea", *Handbook of Research on Resident and Tourist Perspectives on Travel Destinations*, IGI Global, pp. 140-165.

Richards, G. and Hall, D.R. (2002), *Tourism and Sustainable Community Development*, Routledge, London.

Ringle, C., Da Silva, D. and Bido, D. (2014), "Structural equation modeling with the SmartPLS", *Brazilian Journal of Marketing*, Vol. 13 No. 2, pp. 56-73.

Ringle, C.M., Wende, S. and Becker, J.M. (2017), *SmartPLS 3*, SmartPLS GmbH, Boenningstedt.

Rook, L. and McManus, L. (2016), "Viewing WIL in business schools through a new lens: moving to the edge of chaos with complexity theory", *Emergence: Complexity and Organization*, Vol. 18 No. 2, pp. 1-14.

Rutty, M., Gössling, S., Scott, D. and Hall, C.M. (2015), "The global effects and impacts of tourism", in Gössling, S., Hall, C.M. and Scott, D. (Eds), *The Routledge Handbook of Tourism and Sustainability*, London, p. 529.

Sampson, R.J. (1988), "Local friendship ties and community attachment in mass society: a multilevel systemic model", *American Sociological Review*, Vol. 53 No. 5, p. 766.

Sautter, E.T. and Leisen, B. (1999), "Managing stakeholders a tourism planning model", *Annals of Tourism Research*, Pergamon, Vol. 26 No. 2, pp. 312-328.

Schroeter, G. and Turner, J.H. (1979), "The structure of sociological theory", in Turner, J.H. (Ed.), *Teaching Sociology*, Vol. 7, p. 99.

Šegota, T., Mihalič, T. and Kuščer, K. (2017), "The impact of residents' informedness and involvement on their perceptions of tourism impacts: the case of Bled", *Journal of Destination Marketing and Management*, Vol. 6 No. 3, pp. 196-206.

Sharpley, R. (2014), "Host perceptions of tourism: a review of the research", *Tourism Management*, Vol. 42, pp. 37-49.

Shaw, R., Kim, Y.K. and Hua, J. (2020), "Governance, technology and citizen behavior in pandemic: lessons from COVID-19 in East Asia", *Progress in Disaster Science*, Vol. 6, pp. 1-11.

Sheehan, L.R. and Ritchie, J.R.B. (2005), "Destination stakeholders exploring identity and salience", *Annals of Tourism Research*, Vol. 32 No. 3, pp. 711-734.

Sheldon, P.J. and Var, T. (1984), "Resident attitudes to tourism in North Wales", *Tourism Management*, Vol. 5 No. 1, pp. 40-47.

Simmons, D.G. (1994), "Community participation in tourism planning", *Tourism Management*, Vol. 15 No. 2, pp. 98-108.

Sinclair-Maragh, G. (2017), "Demographic analysis of residents' support for tourism development in Jamaica", *Journal of Destination Marketing and Management*, Vol. 6 No. 1, pp. 5-12.

Smith, S.L.J.J. (1994), "The tourism product", *Annals of Tourism Research*, Vol. 21 No. 3, pp. 582-595.

Smith, M.D. and Krannich, R.S. (1998), "Tourism dependence and resident attitudes", *Annals of Tourism Research*, Vol. 25 No. 4, pp. 783-802.

Speakman, M. and Díaz Garay, A. (2016), "Perspectives on tourism development planning in Acapulco: conventional methods and complexity theory", *International Journal of Tourism Sciences*, Vol. 16 No. 4, pp. 203-221.

Stojković, I., Tepavčević, J., Blešić, I., Ivkov, M. and Šimon, V. (2020), "The influence of sociodemographic characteristics of residents on the perception of tourism development impacts", *The European Journal of Applied Economics*, Vol. 17 No. 2, pp. 89-103.

Taheri, B., Gannon, M.J., Cordina, R. and Lochrie, S. (2018), "Measuring host sincerity: scale development and validation", *International Journal of Contemporary Hospitality Management*, Vol. 30 No. 8, pp. 2752-2772.

Teye, V., Sirakaya, E. and Sönmez, S.F. (2002), "Residents' attitudes toward tourism development", *Annals of Tourism Research*, Vol. 29 No. 3, pp. 668-688.

Tosun, C. (2006), "Expected nature of community participation in tourism development", *Tourism Management*, Vol. 27 No. 3, pp. 493-504.

Tosun, C., Dedeoğlu, B.B., Çalışkan, C. and Karakuş, Y. (2021), "Role of place image in support for tourism development: the mediating role of multi-dimensional impacts", *International Journal of Tourism Research*, Vol. 23 No. 3, pp. 268-286.

Tsai, C.H., Wu, T.C., Wall, G. and Linliu, S.C. (2016), "Perceptions of tourism impacts and community resilience to natural disasters", *Tourism Geographies*, Vol. 18 No. 2, pp. 152-173.

Turkish Statistical Institute (2020), "Geographic statistics portal", available at: https://data.tuik.gov.tr/ (accessed 10 April 2021).

Urry, J. (2005), "The complexity turn", *Theory, Culture and Society*, SAGE Publications Sage UK, London, Vol. 22 No. 5, pp. 1-14.

Wattanacharoensil, W. and Stettler, J. (2019), "Complexity theory in tourism", *Delivering Tourism Intelligence*, Emerald Publishing.

Williams, D.R., McDonald, C.D., Riden, C.M. and Uysal, M. (1995), "Community attachment, regional identity and resident attitudes toward tourism", *Proceedings of the 26th Annual Travel and Tourism Research Association Conference Proceedings*, Wheat Ridge, CO, Travel and Tourism Research Association, Vols 424-428, pp. 424-428.

Woodside, A.G. (2013), "Moving beyond multiple regression analysis to algorithms: calling for adoption of a paradigm shift from symmetric to asymmetric thinking in data analysis and crafting theory", *Journal of Business Research*, Vol. 66 No. 4, pp. 463-472.

Woodside, A.G. (2014), "Embrace erform model: complexity theory, contrarian case analysis, and multiple realities", *Journal of Business Research*, Vol. 67 No. 12, pp. 2495-2503.

Woodside, A.G. (2015), "Constructing business-to-business marketing models that overcome the limitations in variable-based and case-based research paradigms", *Journal of Business-To-Business Marketing*, Vol. 22 Nos 1-2, pp. 95-110.

Woosnam, K.M. and Erul, E. (2017), "Residents' perceived impacts of all-inclusive resorts in Antalya", *Tourism Planning and Development*, Vol. 14 No. 1, pp. 65-86.

Woyo, E. and Slabbert, E. (2019), "Cross-border destination marketing of attractions between borders: the case of Victoria Falls", *Journal of Hospitality and Tourism Insights*, Vol. 2 No. 2, pp. 145-165.

WTTC (2020), "Economic impact reports", available at: https://wttc.org/Research/Economic-Impact (accessed 10 April 2021).

Xie, H., Bao, J. and Kerstetter, D.L. (2014), "Examining the effects of tourism impacts on satisfaction with tourism between native and non-native residents", *International Journal of Tourism Research*, Vol. 16 No. 3, pp. 241-249.

Yeoman, I. and Butterfield, S. (2011), "Tourism and demography: an overview", in Yeoman, I, Cathy, H.C., Smith, K. and Watson, S. (Eds), *Tourism and Demography*, Goodfellow Publishers, Woodeaton, Oxford, pp. 1-21.

Yoon, Y., Gursoy, D. and Chen, J.S. (2001), "Validating a tourism development theory with structural equation modeling", *Tourism Management*, Vol. 22 No. 4, pp. 363-372.

Appendix 1

Constructs	CI (Step 1)	Compositional invariance (correlation = 1) (Step 2)		PMI	Equal mean (Step 3a)		Equal variance (Step 3b)		FMI
		C = 1	CI		Dif.	CI	Dif.	CI	
NEI	Yes	0.988	[0.472, 1.000]	Yes	0.131	[−0.271, 0.274]	−0.002	[−0.303, 0.220]	Yes
NEcI	Yes	0.998	[0.984, 1.000]	Yes	0.242	[−0.265, 0.270]	−0.092	[−0.357, 0.267]	Yes
NSI	Yes	0.999	[0.995, 1.000]	Yes	0.317	[−0.277, 0.275]	−0.240	[−0.232, 0.184]	No
ATTD	Yes	0.999	[0.998, 1.000]	Yes	−0.274	[−0.279, 0.267]	0.059	[−0.407, 0.271]	Yes

Note(s): CI: Confidence Interval; Dif: Differences; CI: Configural invariance; FMI: Full measurement invariance; PMI: Partial measurement invariance; STD: Support for tourism development; NEI: Negative Environment Impact; NEcI: Negative Economic Impact; NSI: Negative Sociocultural Impact

Table A1.
Results of MICOM for length of residence

Appendix 2

| Constructs | CI (Step 1) | Compositional invariance (correlation = 1) (Step 2) | | PMI | Equal mean (Step 3a) | | Equal variance (Step 3b) | | FMI |
		C = 1	CI		Dif.	CI	Dif.	CI	
NEI	Yes	0.985	[0.516, 1.000]	Yes	−0.015	[−0.277, 0.279]	−0.070	[−0.303, 0.220]	Yes
NEcI	Yes	0.999	[0.985, 1.000]	Yes	−0.379	[−0.275, 0.272]	0.136	[−0.357, 0.267]	No
NSI	Yes	0.997	[0.995, 1.000]	Yes	−0.379	[−0.278, 0.274]	0.241	[−0.232, 0.184]	No
STD	Yes	0.999	[0.998, 1.000]	Yes	0.405	[−0.269, 0.276]	−0.093	[−0.407, 0.271]	No

Note(s): CI: Confidence Interval; Dif: Differences; CI: Configural invariance; FMI: Full measurement invariance; PMI: Partial measurement invariance; STD: Support for tourism development; NEI: Negative Environment Impact; NEcI: Negative Economic Impact; NSI: Negative Sociocultural Impact

Table A2.
Results of MICOM for
native vs non-native

Appendix 3

Negative contrarian cases indicating ~A→~O

Cramer's V = 0.343, p < 0.01			STD					Total
			1	2	3	4	5	
NEcI	1	Count	8	6	9	4	29	56
		% in STD	12.3%	9.2%	11.4%	7.7%	38.7%	16.7%
		% of Total	2.4%	1.8%	2.7%	1.2%	8.6%	16.7%
	2	Count	6	8	41	20	22	97
		% in STD	9.2%	12.3%	51.9%	38.5%	29.3%	28.9%
		% of Total	1.8%	2.4%	12.2%	6.0%	6.5%	28.9%
	3	Count	7	26	11	3	11	58
		% in STD	10.8%	40.0%	13.9%	5.8%	14.7%	17.3%
		% of Total	2.1%	7.7%	3.3%	0.9%	3.3%	17.3%
	4	Count	10	23	11	12	6	62
		% in STD	15.4%	35.4%	13.9%	23.1%	8.0%	18.5%
		% of Total	3.0%	6.8%	3.3%	3.6%	1.8%	18.5%
	5	Count	34	2	7	13	7	63
		% in STD	52.3%	3.1%	8.9%	25.0%	9.3%	18.8%
		% of Total	10.1%	0.6%	2.1%	3.9%	2.1%	18.8%
Total		Count	65	65	79	52	75	336
		% in STD	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	19.3%	19.3%	23.5%	15.5%	22.3%	100.0%

Positive contrarian cases indicating A→O

Table A3.
Result of contrarian case analysis for relationship between NEcI and STD

Appendix 4

	Outcome			
	Presence of std		Absence of std	
Condition	Consistency	Coverage	Consistency	Coverage
neci	0.566918	0.592507	0.764202	0.706588
~neci	0.719263	0.775180	0.559282	0.533250
nei	0.613979	0.629407	0.657621	0.596401
~nei	0.606294	0.666851	0.591364	0.575421
nsi	0.507125	0.534086	0.750507	0.699257
~nsi	0.714439	0.763976	0.499936	0.472949
nat	*0.862240**	0.583600	*0.800912**	0.479576
~nat	0.231097	0.567491	0.304589	0.661705
res	*0.873963**	0.591535	0.787661	0.471641
~res	0.219374	0.538702	0.317840	0.690492

Note(s): std: support for tourism development; nei: negative environment impact; neci: negative economic impact; nsi: negative sociocultural impact; nat: nativity; res: length of residence; Italics are values with a consistency value above 0.80

Table A4.
Results of analysis of necessary conditions

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