Casino tourism development is blessing or curse? Assessment of casino tourism impacts and suggestions for sustainable casino tourism development

Abstract

This study aims to assess the level of casino tourism development as perceived by residents of the Grand Ho Tram Strip in Vietnam. This study is timely and crucial because the local government needs to make a decision regarding the extension of the casino tourism development based on local residents' opinions about responsible or sustainable development, taking local residents' wellbeing and their futures into consideration. Positive economic impacts did not entail satisfaction in the casino tourism community. Other structural paths were all significant in explaining resultant variables and signs regarding their relationships were the same as hypothesized. The results of this study stress the need to monitor community residents' reactions to casino tourism development.

Keywords: casino tourism, impacts, community, sustainable, resident, responsible, Vietnam.

1. Introduction

The scale of casino tourism development is diverse, ranging from a large-scale casino in a city or urban setting (e.g., Las Vegas, Macau, Atlantic city) to a small casino in an isolated region (e.g., Genting highland in Malaysia, mining towns in Colorado, USA) or riverboat casinos (Fong, Fong, & Law, 2015; Geisler & Nichols, 2016; Hsu, 2000). The demand of casino tourism encompasses international tourists as well as domestic people. Now that casino tourism development has two faces that generate both positive and negative impacts, there is a need to consistently assess residents' attitudes toward casino resorts in terms of sustainable regional development (Fong et al., 2015; Gursoy, Chi, & Dyer, 2010; Gu, Li, Chang, & Guo, 2017; Prentice & Zeng, 2018; Vong, Lai, & Li, 2016).

A suitable example through which to explore casino tourism development is in Vietnam; a development project was launched in the Grand Ho Tram Strip in July 2013 to attract international tourists, specifically mainland Chinese tourists. Ho Tram is an exclusive resort destination for weekend getaways for residents of Ho Chi Minh City. Ba Ria-Vung Tau Tourism Department estimated that the province will welcome 25.3 million visitors in 2020, compared to 11 million visitors in 2012 (Quo, 2016). It seems that Vietnam's adoption of casino tourism strategies has been effective, as the number of tourist arrivals reached 15.49 million in 2018, an increase of 54.7%, compared to 2016 (VNAT, 2019). As the government recognizes the potential harms of the social costs associated with casino gambling, it wants to assess the impacts of casinos on the adjoining community. This paper seeks to identify the perceived impacts of casino tourism in Vietnam, as local residents' perceptions and support are important to the success of tourism development projects.

Related stakeholders should comprehend residents' perceptions of and attitudes toward

casino development projects for two main reasons: (a) to understand how to improve residents' quality of life; (b) and to examine residents' support (Hsu, 2014), offering alternatives for the sustainable development of the community. This effort would also enable casino companies and policy makers to undertake appropriate steps in order to minimize social evils associated with addictive gambling or economy inequality, thereby enhancing the quality of life for the involved communities (Gu et al., 2017; Gursoy et al., 2010; Vong et al., 2016).

This paper aims to identify the relationships between residents' perceptions of casino tourism impacts, place attachment, and their attitudes toward casino tourism development in Vietnam. Given this premise, this study has five objectives. The first is to identify the dimensions of perceived casino tourism impacts. The second is to assess how the way in which local residents perceive the impacts of casino tourism influences their satisfaction with casino development. The third objective is to explore whether or not satisfaction with the casino community has an effect on community attachment. The fourth is to analyze whether or not satisfaction with the casino community affects support for casino tourism development. The fifth is to examine the relationship between community attachment and support for casino tourism development.

2. Proposed conceptual model and hypotheses

Based on a review of the relevant literature, the conceptual framework of this study proposes causal relationships between residents' perceptions of the effects of casino tourism on their communities and their support for the development of the casino tourism destination, mediated by satisfaction with the casino community and attachment to the destination community. The proposed model is shown in Figure 1. The model includes constructs and causal directions. It also contains a total of eight research hypotheses relating the relationships among the study

variables. In addition, gender, age, household income, education level, and length of residency are specified in Figure 1 as moderating variables between perception of tourism impacts and resultant variables. In this study various theories such as stakeholder theory, social exchange theory, community attachment theory, collaboration theory, community attachment, and sentiment to community were employed in order to explain the hypothetical relations.

[Insert Figure 1]

2.1. The effects of social impacts on satisfaction with the casino community

Many studies have addressed the positive social impacts of casino tourism development, such as the enhancement of living standards, an increase in leisure facilities, the enhancement of living quality, the betterment of educational environment, and cultural exchange. These positive social impacts have been discussed in the context of social exchange theory, as gains made in regard to the community (Andriotis & Vaughan, 2003; Deery, Jago, & Fredline, 2012; Gursoy, Jurowski, & Uysal, 2002; Gursoy & Rutherford, 2004; Ham, Brown, & Jang, 2004; Jurowski, Uysal, & Williams, 1997; Sirakaya, Teye, & Sonmez, 2002).

However, many studies have emphasized the negative impacts of promoting casino gambling, such as social disruption, including crime, bankruptcy, and social pathologies (Chhabra & Gursoy, 2007; Nicholas & Tosun, 2017; Tosun, 2002). Furthermore, crime has increased with the development of casino operations (Long, 1996; Stokowski, 1996; Wan, 2012). Casino gambling has also been associated with social harms such as violence, bankruptcy, alcohol abuse, divorce, social disruption, prostitution, and loan shark (Chhabra & Gursoy, 2007; Stokowski, 1996; Thompson & Schwer, 2005).

Now that these negative effects have generated less support of gambling development, most studies also report a negative relationship between social impacts and support for casino development. For example, recent studies suggest that Macau residents were less supportive of casino development due to potential related social issues, such as traffic congestion and overcrowding (But & Ap, 2017; McCartney & Lei, 2016). These findings are consistent with those of previous studies on gambling towns in Colorado (Kang & Lee, 2018; Lee, Kang, & Reisinger, 2010; Long, 1996) and South Dakota (Stokowski, 1996; Long, 1996). Rooted on the aforementioned discussion, the following hypotheses are developed.

H1: The perception of positive social impacts positively influences satisfaction with the casino community.

H2: The perception of negative social impacts negatively influences satisfaction with the casino community.

2.2. The effects of economic impacts on satisfaction with the casino community

Previous studies have reported positive impacts of casino tourism development, such as job creation, increase in government's revenue, and the revitalization of local economies (Andereck & Vogt, 2000; Canedy & Zeiger, 1991; Fong et al., 2015; Geisler & Nichols, 2016; Jurowski et al., 1997; King, Pizam, & Milman, 1993). As addressed in the above section, social exchange theory has been employed to explain residents' perceptions of the impacts of tourism development. Based on the social exchange theory, residents evaluate casino development in terms of expected financial benefits or costs experienced in return (But & Ap, 2017; Gursoy et al., 2002; Lee, Kang, Long, & Reisinger, 2010). Therefore, it is rational to predict that the perceived positive economic impact will positively influence residents' satisfaction with the casino community, whereas perceived negative economic impact will attenuate residents'

satisfaction with the casino community. These ideas represent a behavioral theory that helps to more easily explore the responses of relevant stakeholders in a bilateral situation.

In contrast, some studies have discussed the way in which these economic benefits may have been overstated (But & Ap, 2017; Hampton, Jeyacheya, & Long, 2018; Jinkner-Lloyd, 1996; Liu & Var, 1986; McCartney & Lei, 2016; Stokowski, 1996). For example, a study by Liu and Var (1986) found there were no significant differences between employed and non-employed residents' perceptions of the economic benefits of casino development. Similarly, residents have acknowledged that casino tourism development will be accompanied by negative costs, such as income polarization, increased costs of living, and increases in rental fees (But & Ap, 2017; Gu et al., 2017; McCartney & Lei, 2016). This discussion entails the following two hypotheses.

H3: The perception of positive economic impacts positively influences satisfaction with the casino community.

H4: The perception of negative economic impacts negatively influences satisfaction with the casino community.

2.3. The effects of environmental impacts on satisfaction with the casino community

A large-scale casino development brings about environmental destruction that is incurred through the construction of infrastructure and superstructure; this development can also have a negative aftermath occurring after the opening of a casino, which may include littering, noise, pesticides, diverse forms of pollution, and congestion (Vong & McCartney, 2005). According to the results of applying Butler's life-cycle theory to residents' perceptions of tourism development, there is an inverse relationship between level of tourism development and perceived impacts (Lee & Jan, 2019). Similarly, previous studies have confirmed that locals who

are more exposed to a casino community showcase unfavorable attitudes toward negative environmental outcomes, compared to those who were exposed to a casino resort to a lesser extent (Fong et al., 2015; Ryan, Scotland, & Montgomery, 1998; Vong et al., 2016).

Residents are susceptible to detrimental environmental impacts because they directly encounter them every day in their community (Fong et al., 2015). Previous studies have proposed that an increasing level of tourism dependence generates negative attitudes toward unfavorable impacts, including environmental aspects, and mitigates a lower level of residents' satisfaction (Smith & Krannich, 1998; Vong et al., 2016). That is, residents living in a casino-saturated community were more likely to negatively perceive environmental impacts than residents in other types of communities. As a consequence, adverse impacts, such as crowding, pollution, and environmental disruption, will diminish satisfaction within casino communities. This discussion guides development of the following hypothesis.

H5: The perception of negative environmental impacts negatively influences satisfaction with the casino community.

2.4. The effects of satisfaction with the casino community on community attachment

Some studies have suggested that psychological attachment and bonds to a destination influence repeat visitation (Jurowski et al., 1997; Kyle, Absher & Graefe, 2003; Kim, Choe, & Petrick, 2018; Kyle & Chick, 2007). The antecedents of place attachment include personal involvement (Gross & Brown, 2008; Hou, Lin, & Morais, 2005), destination attractiveness (Hou et al., 2005), and destination image (Prayag & Ryan, 2012) or satisfaction (Alexandris, Kouthouris & Meligdis, 2006; Kim, Song, Lee, & Lee, 2017; Prayag & Ryan, 2012; Vong et al., 2016; Yuksel, Yuksel, & Bilim, 2010). The concept of community attachment is rooted in developmental psychology, and the attachment theory is useful to explain the link between satisfaction and

community attachment. The attachment theory in community refers to emotional and psychological bonds formed between an individual and specific settings with community-related actions (Brown, Altman, & Werner, 2012). Therefore, satisfaction with the casino community is persuasively linked to community attachment.

H6: Satisfaction with the casino community positively influences community attachment.

2.5. The effects of satisfaction with the casino community on support for casino tourism development

Perceptions of gambling development are varied and residents' reactions to it are diverse because residents tend to assess these effects according to the costs and benefits of them (But & Ap, 2017; Tan, Lee, & Kim, 2017). Satisfaction with the casino community is considered to be a determinant of a successful symbiotic relationship between residents and their community (Fong et al., 2015; Vong et al., 2016). Even though residents have mixed attitudes toward gambling development, the more positive residents' beliefs are about casino development in their communities, the stronger their support is for their communities.

The social exchange theory is a conducive tool to elaborate this linkage because the theory addresses that residents' attitude and behavior are affective and cognitive consequences of community satisfaction (Nunkoo & Ramkissoon, 2011). According to collaboration theory collaboration between stakeholders with shared interests occurs in the middle of process to solve a problem (Gray 1989). Likewise, collaboration promotes bonds between casino development stakeholders and alleviate conflicts which can occur in the process of considering community future. Hence, this study postulates that if residents who have a higher level of satisfaction with

the casino community, they are more willing to engage in supporting casino tourism development. As a result, hypothesis 7 was proposed as follows.

H7: Satisfaction with the casino community positively influences support for casino tourism development.

2.6. The effects of community attachment on support for casino tourism development

Since community attachment indicates residents' interest in, affection for, and emotional involvement with their community, it is important to explore their reactions to casino tourism development (Vong et al., 2016). Residents with low levels of attachment to their community are less supportive toward rapid changes within their environment and surroundings arising from tourism development (Kang & Lee, 2018; Prayag & Ryan, 2012; Vaske & Kobrin, 2001). In contrast, Jurowski et al. (1997) identified that residents attached to their community are keenly interested in the diverse effects accruing from tourism development. In a similar vein, some studies (Brown, Perkins, & Brown, 2003; Vong et al., 2016) have found that community attachment has a positive influence on support for casino tourism development.

Albeit, social exchange theory appropriately espouses this connection, as the community residents showcase a high level of perceived benefits when they have a stronger community attachment, consequently, leading to enhancement of their intention to support tourism development (Kaján,2014; Lee, 2013). Therefore, this study hypothesizes that the stronger the attachment of local residents, the more supportive they are toward casino tourism development in their local society.

H8: Community attachment positively influences support for casino tourism development.

2.7. The moderating effects of gender, age, household income, education level, and length of residency on the hypothesized model

Researchers suggest that residents' perceptions of gambling development can be influenced by different endogenous variables, such as age, income, gender, education, ethnicity, and whether or not an individual works within the casino industry (Geisler & Nichols, 2016; Roehl, 1999; Sheldon & Abenoja, 2001; Spears & Boger, 2003; Tan et al., 2017). Roehl (1999) concurred that sociodemographic characteristics, such as length of residence, homeownership, and occupation can influence individual perceptions of casino tourism development. Similarly, residents are likely to oppose further development if they have a longer duration of residency (Lankford & Howard, 1994).

To accelerate sustainability of casino development, it is imperative to assess the dynamics of perceived impacts according to residents' demographic background, and how their profile influence sustainable casino tourism development (Tan, Lee, & Kim, 2017). Stakeholder theory is useful in explaining this regard because all stakeholders reveal their own reactions (Freeman, 2010). Therefore, this study attempts to examine the moderating effects of respondents' demographic backgrounds.

According to Moufakkir and Timothy (2014), casino workers are supportive of gambling development as it provides jobs, investment opportunities, and ownership potential, whereas non-tourism workers view casinos negatively in terms of crime, addiction, family dissolution, divorce, and bankruptcy. A study of Moufakkir and Timothy (2014) also found that, compared to short-term residents, long-term residents revealed more negative reactions toward 'improved working conditions', 'increased bankruptcy', and 'increased occurrences of crime'.

Sheldon and Abenoja's (2001) study found that younger groups of residents demonstrated more positive reactions toward casino development and enduring support for a gambling town, compared to older groups of residents. Likewise, age is the most dominant variable among young adults who are more favorable to new economic development (But & Ap, 2017; Huh & Vogt, 2008). However, a study conducted by Hsu (2000) found that age was not a significant predictor in accounting for differences in impacts perceived by casino residents. According to Tan et al.'s (2017) study, residents with higher education levels showed a higher level of perceptions of positive impacts of gambling and a lower level of negative impacts. Some studies have identified that those who have job opportunities in gambling hold positive attitudes toward casino community development, which leads to community attachment and continuous support for casino tourism development (But & Ap, 2017; Vong et al., 2016). The above discussion determines the following hypotheses.

H9a: Gender has a moderating effect on the associations among research constructs.
H9b: Age has a moderating effect on the associations among research constructs.
H9c: Household income has a moderating effect on the associations among research constructs.
H9d: Education level has a moderating effect on the associations among research constructs.
H9e: Length of residency has a moderating effect on the associations among research constructs.

3. Methodology

3.1. Study setting

Vietnam launched its first integrated resort, The Grand Ho Tram Strip, in July 2013, in an attempt to boost tourist arrivals to the country. The Grand is an alluring beachfront resort and is the first of up to five resorts to be developed in 405 acres along the 1.3-mile Ho Tram

beachfront, where the government has authorized two casinos and expects an investment of $4 billion. The Grand's 541 hotel rooms are packed on weekends, with a planned second tower to increase the inventory up to 1,100 rooms. The Ho Tram Strip has operated an 18-hole golf course.

According to a report by Reuters, the Grand Ho Tram has struggled to attract foreign gambling tourists. However, Macau's biggest junket operator, SunCity, has invested in the new $4-billion Hoiana casino, which is four times the size of Macau's Cotai strip and is expected to launch its first phase – 140 card tables and a golf course – in 2019, followed by its second phase – water parks, a second golf course, and four resorts – in 2023, along with two other casinos located in Van Don, the northern province of Quang Ninh, which are currently under construction (Master, 2018; Vietnam Investment Review, 2019). Based on the extant tourism literature, it remains to be seen if the Vietnamese government can achieve sustainable casino tourism development by maximizing economic benefits and minimizing the negative impacts of addictive gambling. This is an issue for future research.

To address the above questions, this study decided Ba Ria City and Vung Tau City as study settings where they consist of local communities located within a 60 km from the casino resort, in Grand Ho Tram Strip. As a consequence, it is a good context to examine place attachment and investigate the local community's residents' perceptions of and attitudes toward the casino development. This geographical location is depicted in Figure 2.

[Insert Figure 2]

3.2. Measurement

The measurement items for tourism impacts, satisfaction with the casino community, community attachment, and support for the casino tourism destination were developed through a thorough literature review, a pre-test, and a pilot test. The 25 items indicating tourism impacts were chosen from previous studies on the impacts of casino development (Back & Lee, 2005; Fong et al., 2015; Lee & Back, 2006; Lee, Kang, Long, & Reisinger, 2010; McCartney & Lei, 2016; Moufakkir & Timothy, 2014). *A-priori* dimensions were categorized into three large domains: economic impact, social impact, and environmental impact. Items measuring satisfaction with the casino community were extracted on the basis of a review of previous studies (Lee et al., 2010; Vong et al., 2016). A pool of initial items representing community attachment were derived from the existing literature (Kang & Lee, 2018; Lee et al., 2010; Vong et al., 2016). A pool of items representing satisfaction were extracted from Veasna, Wu, and Huang (2013). A pool of items indicating support for casino tourism destination were derived from previous studies (Back & Lee, 2005; Lee & Back, 2006; Lee, et al., 2010; McCartney & Lei, 2016; Moufakkir & Timothy, 2014).

This study adopted a personal interview survey approach to explore local residents' attitudes toward the Grand Ho Tram Strip in Vietnam. The questionnaire was first developed in English. To avoid language barriers among respondents, the questionnaire was translated into Vietnamese by a Vietnamese professor who had studied abroad. This translation was reviewed by two other Vietnamese researchers through a back-translation method to ensure there were no semantic errors. Prior to the main survey, a pilot study was conducted with 30 Vietnamese residents who were living in the casino region. In the pilot test, the respondents demonstrated difficulty in understanding a few phrases, such as "leakage effect", "global warming", "fair trade", and "sustainability"; four items containing these words were therefore eliminated. With

the exception of sociodemographic variables, which were measured using categorical data types, all items were measured on 5-point Likert scales, with "1" = "strongly disagree", "3" = "neutral", and "5" = "strongly agree".

3.3. Data collection

In the main survey, a group of interviewers received a training session, which offered effective techniques in regard to approaching and handling prospective respondents. As the number of residents living in the Grand Ho Tram Strip reached about 4,000, the main survey was administered to residents living in Ba Ria City, Vung Tau City, Ho Chi Minh City, and Binh Duong province. Data collection was implemented in cafeterias, on the streets, in indoor and outdoor markets, and in offices. As five of the interviewers were local residents who knew the community and local residents. Among 450 collected questionnaires, 400 questionnaires were kept after ruling out 50 questionnaires due to a series of missing values or insincere answers.

4. Results

4.1. Profiles of respondents

Respondents were categorized into the following age groups: 25-34 (38.8%), 35-44 (20.3%), 24 or below (13.3%), 45-54 (11.8%), and 55 or older (16.0%). There were more females (57.3%) than males. Most respondents (96.8%) were Vietnamese. The highest percentage regarding employment was found with company workers (35.3%), followed by casino-related work (13.8%) and self-employed businesses (9.8%). Participants' monthly household income was observed in the categories of US$1,000 or less (44.5%) and US$1,001 to $3,000 (35.8%). Concerning education level, half of the participants (48.3%) were college graduates, followed by high school graduates (26.8%). Participants had stayed in the casino area for 21 to 30 years

(39.2%), 11 to 20 years (29.5%), or 10 years or less (24.0%). More than 6% of participants (63.5%) responded that they owned a house. About 14% of participants directly worked for the casino and 19% worked in a tourism/hospitality business. A total of 75% of participants lived with three to five people.

4.2. Exploratory factor analysis

To identify the underlying domains of tourism impacts, an exploratory factor analysis with varimax rotation was conducted. Following multiple previous studies about the tourism impacts of casino development, which show the economic impacts (positive and negative), social impacts (positive and negative), and negative environmental impacts (Brown et al., 2003; Jurowski et al., 1997; Fong et al., 2015; Vaske & Kobrin, 2001; Vong et al., 2016) of casino development, this study conceptualized five constructs of casino development, as shown in Table 1. The results of exploratory factor analyses for the five constructs generated single factor models with eigenvalues greater than 1.0 variances of 64.90%, 82.75%, 74.34%, 73.26%, and 82.57%, respectively. All factor loadings were greater than .54, indicating satisfaction with a .45 criterion (Comrey & Lee, 1992). Cronbach's alpha scores for the five impacts were greater than a .7 criterion (Nunnally, 1978), demonstrating the internal consistency of the items in each domain. The highest mean scores were for positive economic impact (mean = 4.11), negative social impact (mean = 3.80), environmental impact (mean = 3.62), negative economic impact (mean = 3.53), and positive social impact (mean = 3.12).

A series of exploratory factor analyses regarding satisfaction with the casino community, community attachment, and support for casino tourism destinations produced a one-factor solution with eigenvalues greater than 1.0. The three constructs accounted for 77.52%, 69.29%, and 54.52% of the variance. All factor loadings greater than .58 guaranteed a .45 criterion

(Comrey & Lee, 1992). Cronbach's alpha values were .90, 91, and .71, meeting the .70 criterion (Nunnally, 1978). Mean values were relatively low: 3.33, 2.96, and 2.72. Table 1 shows the results of the EFA for all constructs.

[Insert Table 1]

4.3. Structural model

A structural equation model was conducted in order to evaluate the proposed theoretical framework. Our results indicated that the model had an adequate fit to the data (goodness-of-fit statistics for the structural model: $\chi^2 = 1676.205$ ($df = 570$, $p < .001$), $\chi^2/df = 2.941$ RMSEA = .070, CFI = .909, IFI = .910, TLI = .899. The model accounted for 15.6%, 53.6%, and 97.0% of the total variance in satisfaction with the casino community, community attachment, and support for casino tourism development, respectively. Table 2 and Figure 3 contain details pertinent to the results of the structural model assessment.

[Insert Table 2 and Figure 3]

The hypothesized effect of positive social impact, negative social impact, positive economic impact, negative economic impact, and environmental impact on satisfaction with the casino community was tested. The results show that positive social impact had a positive and significant influence on satisfaction ($\beta = .145$, $p < .05$) and that negative social impact had a negative and significant influence on satisfaction ($\beta = .253$, $p < .01$). In addition, our findings show that negative economic impact includes a negative and significant influence on satisfaction ($\beta = -.287$, $p < .01$) and that environmental impact includes a positive and significant influence on satisfaction ($\beta = .235$, $p < .05$). Therefore, Hypotheses 1, 2, 4, and 5 are supported. However,

the influence of positive economic impact on satisfaction was not significant ($\beta = .100$, $p > .05$). Thus, Hypothesis 3 is not supported. The hypothesized associations among satisfaction with the casino community, community attachment, and support for casino tourism development were tested. As expected, satisfaction exerted a positive and significant effect on community attachment ($\beta = .732$, $p < .01$) and support for casino tourism development ($\beta = .158$, $p < .01$). In addition, community attachment had a significant and positive effect on support for the casino tourism destination development ($\beta = .863$, $p < .01$). Accordingly, Hypotheses 6, 7, and 8 are supported.

Next, the indirect effects of the study variables were analyzed. As shown in Table 3, positive social impact ($\beta_{PSI \rightarrow SCC \rightarrow CA} = .106$, $p < .05$), negative social impact ($\beta_{NSI \rightarrow SCC \rightarrow CA} = -.186$, $p < .01$), negative economic impact ($\beta_{NEI \rightarrow SCC \rightarrow CA} = -.210$, $p < .01$), and environmental impact ($\beta_{EI \rightarrow SCC \rightarrow CA} = .172$, $p < .01$) included a significant indirect effect on community attachment through satisfaction. In addition, positive social impact ($\beta_{PSI \rightarrow SCC \& CA \rightarrow SD} = .115$, $p < .05$), negative social impact ($\beta_{NSI \rightarrow SCC \& CA \rightarrow SD} = -.200$, $p < .01$), negative economic impact ($\beta_{NEI \rightarrow SCC \& CA \rightarrow SD} = -.227$, $p < .01$), and environmental impact ($\beta_{EI \rightarrow SCC \& CA \rightarrow SD} = .186$, $p < .01$) had a significant indirect influence on support for casino tourism development through satisfaction and community attachment. Moreover, satisfaction had a significant indirect effect on support for casino tourism development ($\beta_{SCC \rightarrow CA \rightarrow SD} = .632$, $p < .01$). These results imply that both satisfaction and community attachment included a significant mediating role within the proposed theoretical framework. Regarding the total effects of the study variables, community attachment had the greatest total influence on support for casino tourism development ($\beta = .863$, $p < .01$), followed by satisfaction ($\beta = .790$, $p < .01$), negative economic impact ($\beta = -.227$, $p <$

.01), negative social impact (β = -.200, $p < .01$), environmental impact (β = .186, $p < .01$), and negative social impact (β = .115, $p < .05$).

4.4. The moderating effects of gender, age, household income, education level, and length of residency

To test the moderating effects of gender, age, household income, education level, and length of residency on the proposed conceptual model, a hierarchical multiple regression analysis was conducted. According to the results, gender, age, and household income did not have significant impacts on the proposed model at the 0.05 level. Accordingly, Hypotheses 9a, 9b, and 9c were not supported. This is contradictory to the results of previous studies in which gender, age, and income were significant moderators accounting for residents' perceived tourism development (Almeida-García, Peláez-Fernández, Balbuena-Vazquez, & Cortes-Macias, 2016; Harvey, Hunt, & Harris Jr, 1995; Hung, Shang, & Wang, 2013; Nunkoo & Ramkissoon, 2010).

To test the moderating effects of the education level of residents on the relationships in the proposed model, two subsamples were constructed: residents with a high school education level or less ($n = 122$) and residents with a college degree or higher ($n = 278$). The results from running hierarchical multiple regression analyses indicated that the effects of negative social impact on satisfaction with the casino community were significantly different between respondents with high and low education levels ($\Delta R^2 = 0.013$; $\Delta F (1, 396) = 5.368$, $p < 0.05$; b = 0.200; $t (396) = 2.32$, $p < 0.05$). This result implies that, at a similar level of negative social impact, residents who lack a high level of education build a stronger level of satisfaction in regard to the casino community than highly educated residents.

In addition, our results show that the effects of positive economic impact on satisfaction with the casino community were significantly different between high and low education levels (Δ

$R^2 = 0.031$; $\Delta F\ (1, 396) = 13.655$, $p < 0.01$; b = 0.515; $t\ (396) = 3.70$, $p < 0.01$). The level of satisfaction was higher in residents with a low level of education than in highly educated residents in regard to low and average perceptions of positive economic impacts. However, highly educated respondents demonstrated a stronger level of satisfaction than residents with a low level of education in regard to positive economic impacts. The results support Hypothesis 9d.

[Insert Figure 4]

In a further examination of the moderating role of length of residency, the respondents were split into three groups: 10 years or less (n = 96), 11-30 years (n = 224), and 31 years or more (n = 80). The results revealed that the effects of negative social impact on satisfaction with the casino community was significantly different between residents who had resided in the community for 10 years or less and residents who had resided there for 31 years or more (Δ R2 = 0.012; $\Delta F\ (1, 396) = 4.901$, $p < 0.05$; b = -0.1017; $t\ (396) = -2.21$, $p < 0.05$). This result implies that, at a similar level of negative social impact, residents who had resided in the community for 31 years or more built stronger levels of satisfaction with the casino community than residents who had resided there for 10 years or less.

Finally, our results show that the effects of negative environmental impact on satisfaction with the casino community were significantly different between residents who had resided there for 10 years or less and the residents who had resided there for 31 years or more (Δ R2 = 0.010; $\Delta F\ (1, 396) = 4.437$, $p < 0.05$; b = -0.0932; $t\ (396) = -2.106$, $p < 0.05$). This result implies that, at low levels of negative environmental impact, residents who had resided there for 31 years or more built a stronger level of satisfaction with the casino community than residents who had resided there for 10 years or less. However, the effects of negative environmental impacts on

satisfaction are similar at average and high levels of perceived negative environmental impact between groups with different lengths of residency. These results support Hypothesis 9e.

[Insert Figure 5]

5. Discussion and implications

This study examines the economic, social, and environmental impacts of casino development on satisfaction within the casino community in Vietnam. Based on the results of empirical analyses, this study's important findings and implications are as follows. First, this study established that there is a high correlation between negative social impacts and satisfaction. This is consistent with conventional wisdom. Residents were content when they favored enhancements in terms of their quality of life (Ap, 1990; Carmichael, 2000; Giacopassi, Nichols, & Stitt, 1999; Faulkner & Tideswell, 1997; Jurowski et al., 1997; Lankford, 1994; Liu et al., 1986; McCool & Martin, 1994), standard of living and social wellbeing (Gonzales, Lyson, & Mauer, 2007), and increases in recreation facilities (Braunlich, 1996; Brown et al., 2003; Nicholas, 1998). However, they showed dissatisfaction with negative social impacts, such as higher levels of alcoholism and drug abuse, bankruptcy, prostitution (Allock, 2000; Chhabra, 2007; Long, 1996; Stokowski, 1996) and crime (Long, 1996; Nicholas & Tosun, 2017; Stokowski, 1996; Wan, 2012).

Second, negative economic impacts led to dissatisfaction with casino tourism development. This finding concurs with reports from previous studies that residents directly feel the burden of paying tax and in covering living costs, or experiencing insufficient spending on the behalf of out-of-towners in the casino community (But & Ap, 2017; Lee, 2011; Nicholas & Tosun, 2017). Meanwhile, respondents did not demonstrate any relationship between positive economic impacts and satisfaction within the casino community. The reason for this lies in the

magnitude of perceived economic impacts. Unlike planned urban casino settings, such as Las Vegas, Macao, or Atlantic City, most small casino resorts are located far away from local communities, in order to minimize negative impacts on the community. Thus, residents living near casino resorts fail to benefit from the positive economic impacts of them. Thus, local people perceive an insufficient spillover effect due to casino development, except for in terms of job creation.

Third, negative environmental impacts had a significant influence on satisfaction with the casino community. Environmental problems, such as water pollution as a result of the casino resort, littering, the destruction of the natural environment due to the resort's infrastructure or superstructure, and traffic jams on roads passing by the town are the key concerns raised by local Vietnamese respondents. When residents directly perceive negative environmental effects, their experience will directly and negatively influence satisfaction. The findings of this study confirm that local Vietnamese residents are similar in this respect to local residents in Macau (But & Ap, 2017; Fong et al., 2015; McCartney & Lei, 2016; Vong et al., 2015, Wu & Chen, 2015), Nevada (Eadington, Wells & Gossi, 2010; York & Lee, 2010;), Singapore (Tan et al., 2017; Wu & Chen, 2015), Colorado (Long, 1996; Stokowski, 1996), North Cyprus (Scott, 2003), Arizona, and New Mexico (Gonzales et al., 2007) dislike undesirable environmental impacts incurred by gambling tourism.

Fourth, the findings of this study revealed that residents' satisfaction gained from casino tourism development had a positive influence on community attachment. Respondents suggested that they like to live within the casino community, as they are satisfied with their living and financial conditions. Their reflections are conducive to reinforcing the sentiments of the community and commitment to the interests of the local community (Alexandris et al., 2006;

Brown et al., 2003; Vong & McCartney, 2005). The respondents also experienced strong levels of emotional connection to and bonds with the local community (Kim et al., 2018; Stedman, 2003).

Fifth, the findings revealed a positive association between satisfaction with casino tourism development and a willingness to support casino tourism development. This relationship is understandable because satisfied residents will actively attend community meetings, happily pay tax, donate money for the sake of society, be willing to live in the community, and feel proud of being a resident of the casino resort. These results are consistent with those of other studies that have reported a positive association between satisfaction with casino development and support for further development (But & Ap, 2017; Fong et al., 2015; Tan et al., 2017; Vong et al., 2016).

Sixth, the results of this study, in accordance with previous literature, identified a positive relationship between satisfaction with casino tourism development and community attachment (But & Ap, 2017; Gursoy et al., 2010; Vong et al., 2016). Social exchange theory indicates that those who perceive more benefits than costs will showcase a higher level of community attachment. Likewise, this study's findings support social exchange theory, which posits that the primary driver for residents supporting tourism development is sentiment to community (Gursoy, Boğan, Dedeoğlu, & Çalışkan, 2019a) and the improvement of the community's economic and social wellbeing (Yolal, Gursoy, Uysal, Kim, & Karacoglu, 2016; Gursoy, Ouyang, Nunkoo, & Wei, 2019b).

Seventh, unlike hypotheses that elucidate the moderating effects of sociodemographic variables in perceiving the impacts of casinos and further behavioral intentions, the results of this study reported that these moderating effects were identified in only three ANOVA models. That

is, education level moderated the relationship between positive economic impacts and satisfaction with the casino community. According to previous studies, residents with higher levels of education are more likely to be less satisfied with the casino community than those with lower education levels (Tan et al., 2017). The results are espoused by stakeholder theory which indicates that their perceptions of casino development can vary according to each stakeholder's interest.

However, the results of this study suggest that, compared to residents with lower education levels, those with higher education levels have higher levels of satisfaction when they believe that they benefit from a high level of positive economic impact. The reason for this is that those who receive high salaries in a resort tend to be more highly educated employees, such as managers, dealers, salespersons, and back-office staff. With a strong perception of positive economic impacts, their satisfaction level gradually increases. In addition, residents with high levels of education show a higher level of discontent with low positive economic impacts, compared to those with low education levels. However, residents with low education levels revealed consistent satisfaction levels, regardless of perceived positive economic impact levels.

Eighth, the findings revealed that length of residency also moderated the relationships between negative social impact and satisfaction, and between negative environmental impacts and satisfaction. Residents who had resided in the community for 31 years or more demonstrated no differences in satisfaction with the casino tourism community at three different levels of two impacts. However, residents who had lived in the community for a relatively shorter period of time revealed that the level of satisfaction with the casino community increased when they perceived more severe negative social and environmental impacts. This is attributed to the fact that they are more likely to have recently moved into the community from out of town, with the

aim of seeking jobs or lucrative commercial benefits related to the casino. They would therefore prefer an influx of visitors, the construction of more superstructure, more traffic, cultural diversity, cultural exchange, and business opportunities, even though these factors could cause social harms. Thus, residents' perceptions of negative social and environmental impacts can vary according to their length of residency.

6. Conclusion

Residents' acceptance of tourism development and tourism options is dynamic and, as such, should be monitored over time. As social exchange theory suggests, residents directly perceive costs associated with casino gambling with staying in the community and are susceptible to the adverse impacts of casino development. Thus, their perceptions lead to satisfaction with the casino community, which is directly linked to community attachment and support for casino tourism development.

Since residents' perceptions of negative impacts of casinos affect their satisfaction with the casino community, the concept of sustainable gambling development should be promoted to related stakeholders. Local people want to obtain quality of life or wellbeing by utilizing diverse opportunities incurred through casino revenue (Rosenbaum & Wong, 2015). For both the casino and the community, responsible gambling is required in order to prevent the problems caused by gambling (Lee & Jan, 2019; Mallin, 2009; Prentice & Zeng, 2018) and to reduce harm in the community (Dickerson, 1998). Casino operators should make an effort to minimize the adverse impacts of gambling by introducing corporate social responsibility (CSR) initiatives and activities as a form of societal obligation (Brown & Dacin, 1997; Kim et al., 2017) and make socially and ethically conscious business decisions (Jones, Hillier, & Comfort, 2009). For

example, gambling operators can undertake responsible gambling, donate funds to help the poor, and adopt environmentally friendly practices (Jones et al., 2009).

7. Study limitations and suggestions for future studies

The results of this study are rooted in responses as perceived by residents. Thus, future studies need to compare how different stakeholders in the casino community show their perceptions, because stakeholders in a casino community hold different views, according to social exchange theory or their sociodemographic features. A future study also needs to assess the impacts of casino tourism with a more extensive conceptual scope, encompassing, for example, residents' everyday lives or state of mind. There is a need to examine the impacts of casino tourism on local communities in terms of quality of life (QOL), community wellbeing (Vada, Prentice, & Hsiao, 2019; Suntikul et al., 2016), poverty dissipation (Hampton et al., 2018), cultural orientation (Lee et al., 2010), sentiment to community development Gursoy et al., 2019a), eco-centric attitudes (Gursoy et al., 2019b), and sustainability (Lee & Jan, 2019). Finally, since this study was measured on the basis of a one-time assessment, there is a need to evaluate the impacts of casino tourism regularly and compare the results to trace emerging trends.

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Table 1. Standardized factor loadings and other statistics ($N = 400$)

Measures	Standardized loadings	Mean	S.D.
Positive social impact (α = .863; 3.245[a]; 64.90[b]; 3.12[c])			
I believe casino tourism development has resulted in…			
… the improvement of educational facilities/services.	.574	2.62	.98
… more opportunities to use recreation facilities.	.768	3.52	.88
… the consolidation of community spirit.	.662	2.76	.92
… enhancements in quality of life.	.879	3.32	.91
… enhancements in standard of living.	.798	3.38	.87
Negative social impact (α = .958; 4.97; 82.75; 3.80)			
I believe casino tourism development has resulted in…			
… an increase in addiction to gambling.	.845	3.82	.89
… an increase in bankruptcy.	.831	3.78	.88
… an increase in occurrences of alcoholism and drug abuse.	.907	3.78	.90
… an increase in occurrences of prostitution.	.929	3.78	.87
… an increase in occurrences of political corruption.	.899	3.79	.86
… an increase in crime rates.	.922	3.84	.87
Positive economic impact (α = .881; 2.97; 74.34; 4.11)			
I believe casino tourism development has resulted in…			
… an increase in investment and business opportunities.	.728	4.12	.56
… an increase in employment opportunities.	.698	4.19	.57
… an increase in tourist spending.	.919	4.13	.59
… an increase in tax revenue.	.822	4.00	.67
Negative economic impact (α = .813; 2.19; 73.26; 3.53)			
I believe casino tourism development has resulted in…			
… increased living costs.	.910	3.76	.78
… an increase in the tax burden of residents.	.888	3.60	.90
… an increase in the leakage of casino revenues from this community to Ho Chi Minh City.	.543	3.23	.78
Negative environmental impact (α = .935; 3.30; 82.57; 3.62)			
I believe casino tourism development has resulted in…			
… an increase in water pollution.	.908	3.53	.98
… an increase in the quantity of litter.	.918	3.67	.94
… an increase in the destruction of the natural environment.	.916	3.66	.95
… an increase in overcrowding due to visitors.	.770	3.60	.87
Satisfaction with the casino community (α = .903; 3.10; 77.52; 3.33)			
I am satisfied with the development of this casino community.	.821	3.32	.76
I am satisfied with my relationships with my family members in this casino community.	.845	3.35	.75
I am satisfied with living conditions in this casino community.	.889	3.37	.77
I am satisfied with my financial situation in this casino community.	.808	3.28	.82
Community attachment (α = .911; 4.16; 69.29; 2.96)			
I would prefer to live in this casino community than elsewhere.	.826	3.05	.79
This casino community makes me feel important and valued.	.773	2.80	.74
This casino community is an ideal place for me to live.	.831	2.99	.77
I feel proud of the natural/historical resources in this casino community.	.704	2.92	.77
This casino community is a meaningful place to me.	.827	3.09	.79
Living in this casino community makes me feel proud.	.782	2.91	.78
Support for casino tourism destination (α = .713; 2.18; 54.52; 2.72)			
I will do my best to contribute to developing this casino community.	.769	3.04	.80
I have supported tourism development in this casino community.	.587	2.37	.65
I am willing to pay/donate funds to develop this casino community.	.786	2.84	.81
I will recommend this casino community to others as a place to live.	.687	2.64	.76

Note: All factor loadings (standardized) were significant at $p < .01$.

[a] indicates eigenvalue, whereas [b] manifests the magnitude of the explained variance.

Table 2. Structural equation modeling (N = 399)

	Independent variables		Dependent variables	Coefficients	t-values
H1	Positive social impact	→	Satisfaction with the casino community	.145*	2.530
H2	Negative social impact	→	Satisfaction with the casino community	-.253**	-3.018
H3	Positive economic impact	→	Satisfaction with the casino community	.100	1.512
H4	Negative economic impact	→	Satisfaction with the casino community	-.287**	-2.690
H5	Negative environmental impact	→	Satisfaction with the casino community	-.235*	2.323
H6	Satisfaction with the casino community	→	Community attachment	.732**	13.586
H7	Satisfaction with the casino community	→	Support for casino tourism development	.158**	3.170
H8	Community attachment	→	Support for casino tourism development	.863**	12.795

Variance explained R^2 (satisfaction) = .156 R^2 (attachment) = .536 R^2 (support for casino tourism development) = .970	Total effect on support for casino tourism development: $\beta_{\text{positive social impact}}$ = .115* $\beta_{\text{negative social impact}}$ = -.200** $\beta_{\text{positive economic impact}}$ = .079 $\beta_{\text{negative economic impact}}$ = -.227** $\beta_{\text{environmental impact}}$ = .186** $\beta_{\text{satisfaction}}$ = .790** $\beta_{\text{attachment}}$ = .863**	Indirect effect: $\beta_{\text{PSI} \rightarrow \text{SCC} \rightarrow \text{CA}}$ = .106* $\beta_{\text{NSI} \rightarrow \text{SCC} \rightarrow \text{CA}}$ = -.186** $\beta_{\text{PEI} \rightarrow \text{SCC} \rightarrow \text{CA}}$ = .073 $\beta_{\text{NEI} \rightarrow \text{SCC} \rightarrow \text{CA}}$ = -.210** $\beta_{\text{EI} \rightarrow \text{SCC} \rightarrow \text{CA}}$ = .172** $\beta_{\text{PSI} \rightarrow \text{SCC \& CA} \rightarrow \text{SD}}$ = .115* $\beta_{\text{NSI} \rightarrow \text{SCC \& CA} \rightarrow \text{SD}}$ = -.200** $\beta_{\text{PEI} \rightarrow \text{SCC \& CA} \rightarrow \text{SD}}$ = .079 $\beta_{\text{NEI} \rightarrow \text{SCC \& CA} \rightarrow \text{SD}}$ = -.227** $\beta_{\text{EI} \rightarrow \text{SCC \& CA} \rightarrow \text{SD}}$ = .186** $\beta_{\text{SCC} \rightarrow \text{CA} \rightarrow \text{SD}}$ = .632**
Goodness-of-fit statistics for the structural model: χ^2 = 1676.205 df = 570, p < .001, χ^2/df = 2.941 RMSEA = .070, CFI = .909, IFI = .910, TLI = .899.	*p < .05, **p < .01.	

Note: PSI = positive social impact, NSI = negative social impact, PEI = positive economic impact, NEI = negative economic impact, EI = environmental impact, SCC = satisfaction with the casino community, CA = community attachment, SD = support for casino tourism development.

Figure 1. Proposed model

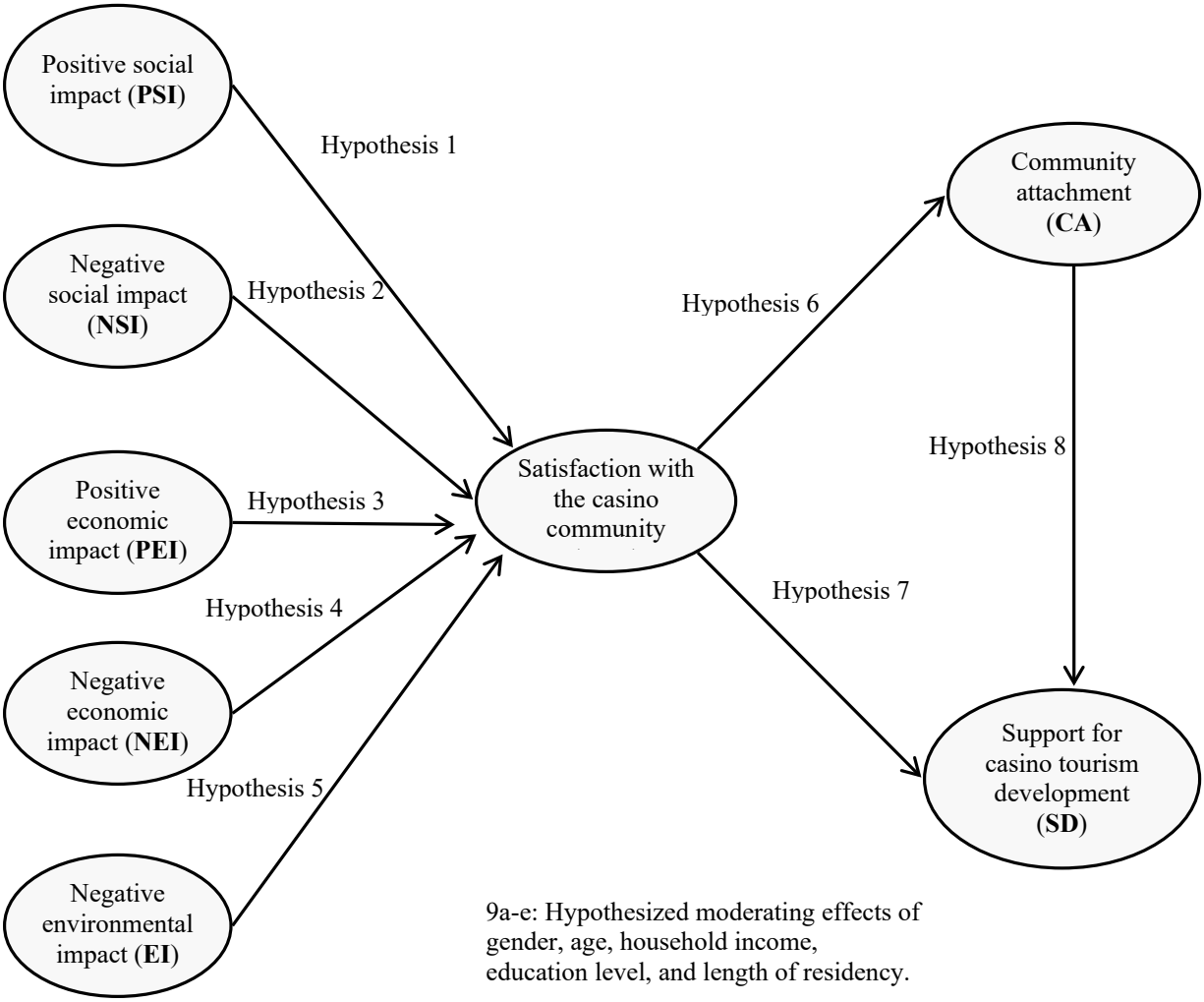
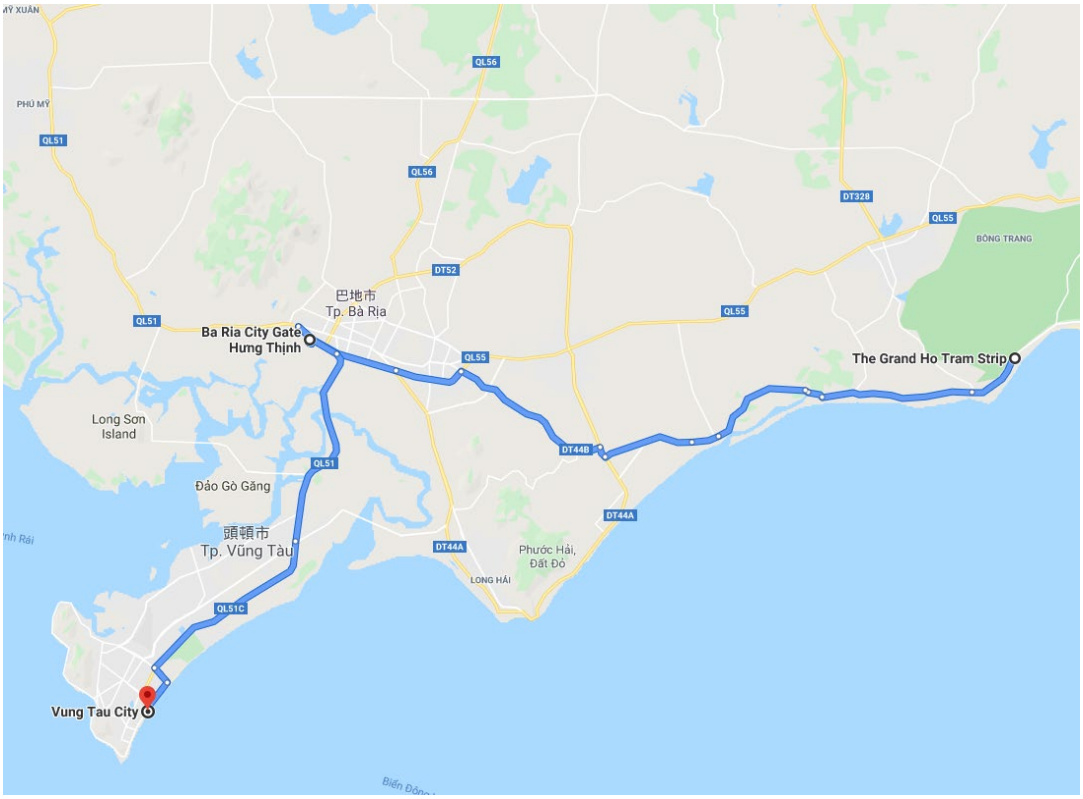
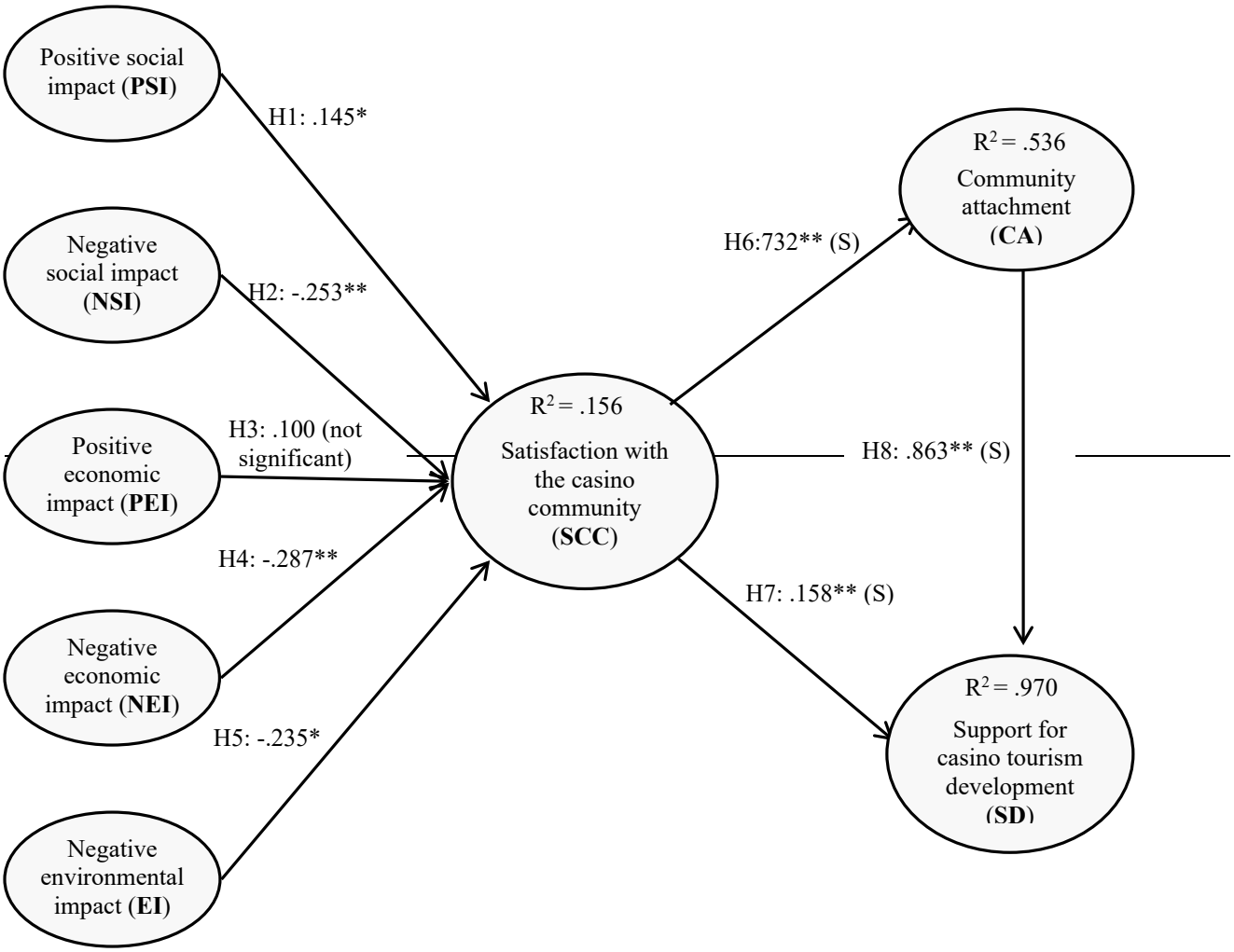


Figure 2. Study site



Source: Google Maps.

Figure 3. Structural model estimation



Goodness-of-fit statistics for the structural model: $\chi^2 = 1676.21$ ($df = 570$, $p < .001$), $\chi^2/df = 2.94$.
RMSEA = .070, CFI = .909, IFI = .910, TLI = .899.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Figure 4. Moderating role of education level

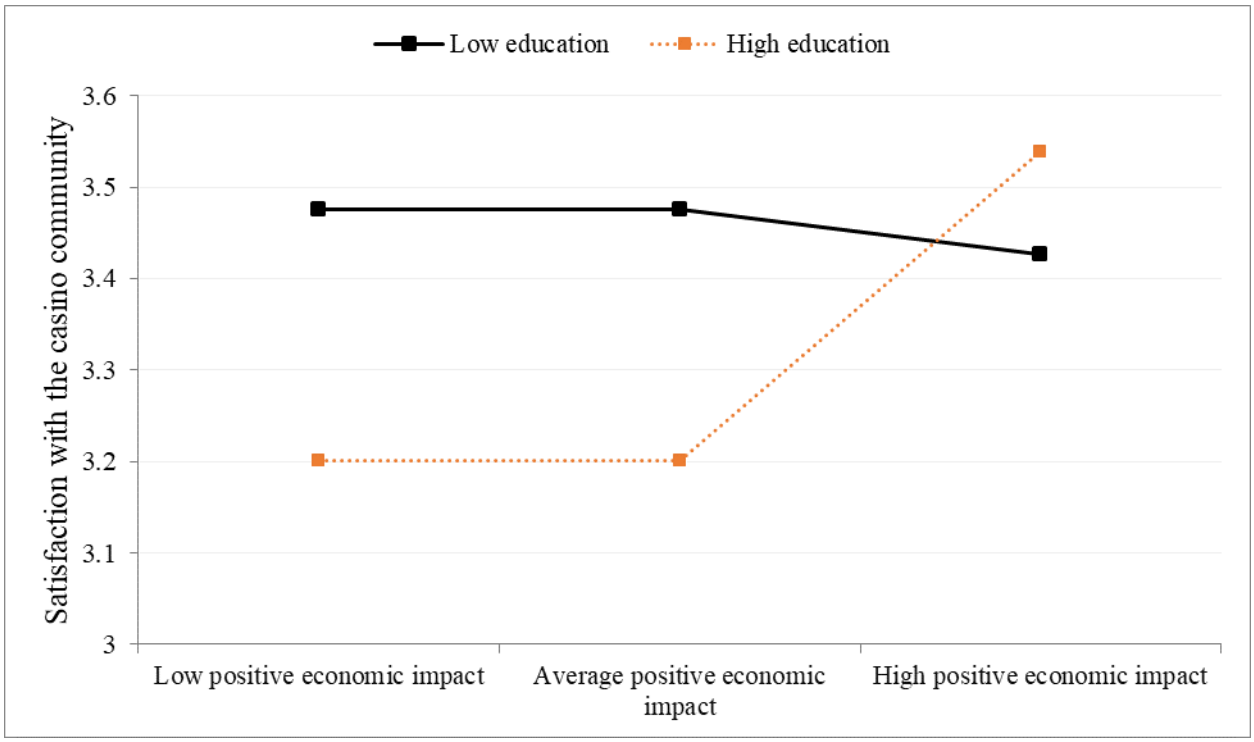


Figure 5. Moderating role of length of residency