Finding important factors affecting local residents’ support for tourism development in Ba Be National Park, Vietnam

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ABSTRACT

The main purpose of this study was to examine local residents’ attitudes and participation in tourism, and to explore factors which affect residents’ support and participation in tourism in Ba Be National Park, Vietnam. Study findings suggest strategies to improve support from local people for additional tourism activities and participation in tourism. Data for this study was collected from 267 questionnaires from residents of three hamlets inside Ba Be National Park (Pac Ngoi, Bo Lu, and Coc Toc). The results of factor analyses of tourism impacts identified five factors: Social and Environmental Benefit (SEB), Personal Economic Benefit (PEB), Local Benefit (LB), Negative Social and Environmental Impacts (NSEI), and Negative Economic Impacts (NEI). Hypotheses testing revealed that, in rural areas, the community depends on natural resources, and community attachment of local residents significantly affects their perception of the positive tourism impacts. In addition, social and environmental impacts from tourism are considered very important factors in influencing local residents’ support and participation in tourism.

Introduction

In developing countries, tourism can be a viable opportunity to improve local residents’ quality of life through providing jobs, generating income, diversifying the economy, protecting the environment, and promoting cross-cultural awareness (Honey and Raymond 2009). However, tourism not only creates benefits, but also harms aspects of the economy, society, culture, and environment. Previous research regarding sustainable tourism indicated that one of the important reasons that tourism develops sustainable benefits to local communities includes local support for tourism activities. Therefore, residents’ attitudes to tourism development is one of the most comprehensively studied areas of tourism, and has been the subject of study for more than 30 years (McGehee and Andereck 2004). Many studies on this subject typically seek the level of residents’ support for tourism development in one or more regions, and the factors influencing local attitudes (Perdue et al. 1990; Ko and Stewart 2002; McGehee and Andereck 2004; Vargas-Sánchez et al. 2009; Látková and Vogt 2012). Concerning tourism in Vietnam, studies of residents’ attitudes have been previously conducted by Pham and Kayat (2011) and Pham (2012).

This research was undertaken in Ba Be National Park, Bac Kan Province, Vietnam, with the main purpose of exploring factors influencing residents’ support for additional tourism development. This research will serve as a useful reference applicable to Ba Be National Park and similar areas.

Literature review

The perceptions and attitudes of local residents can influence the success or failure of the local tourism industry (Ap 1992). Social exchange theory considers why support for tourism is dependent on residents’ perceptions of tourism’s impacts (Jurowski et al. 1997). However, when tourism activities are developed some people benefit while others are negatively affected (McGehee and Andereck 2004). Local residents who perceive themselves as benefiting from tourism are likely to view it positively, while residents who perceive themselves as incurring costs are likely to view tourism negatively (Perdue et al. 1990; Jurowski et al. 1997; McGehee and Andereck 2004; Wang and Pfister 2008). Moreover, residents who perceive tourism to be personally valuable, and believe that the costs associated with tourism do not exceed the benefits, are likely to support tourism development (Ap 1992; Látková and Vogt 2012).

However, complete independence and dependence are not impossible. An individual who exhibits a reaction featuring a strong exchange theory perspective may be more accepting of tourism than others (Croppanzano and Mitchell 2005). McGehee and Andereck (2004) found that residents who depend on tourism development are likely to perceive a higher level of positive tourism impacts and express greater support of tourism activities. In addition, some authors have suggested that the level of tourism development is a component affecting attitudes (Long et al. 1990). This implies that residents in communities that have a different level of tourism development have differing attitudes toward tourism development. Látková and Vogt (2012) have suggested that when there is a positive attitude toward tourism development there will be a high level of tourism development. In addition, Long et al. (1990) posited that attitudes toward tourism may become more negative when there are higher levels of tourism.

However, Allen et al. (1993) suggested that the level of tourism development in a community had no relationship with respondents’ attitudes toward recreation and tourism.
development (Allen et al. 1993). The attitudes of local residents also depend on the level of development of a community’s economy. Residents’ attitudes toward tourism development in communities with higher economic and tourism development is more positive than residents living in communities having higher economic development and undeveloped tourism industries or lower economic development with a developed tourism industry (Allen et al. 1993). Allen and his colleagues also believed that economic activities relate to attitudes toward the adequacy and satisfaction of recreation programs. Specifically, residents from rural communities with higher economic activity and higher tourism development have realized tourism benefits, and have more favorable attitudes to tourism development. Communities with higher economic activity and lower tourism development do not value tourism development. Whilst communities with lower developed economic activity and higher tourism development are less supportive of tourism because they have not realized the economic benefits from tourism development, communities with lower economic activity and lower tourism development have higher hopes and/or expectations for future tourism development (Allen et al. 1993). McGehee and Andereck (2004) further emphasized the economic role (economic benefits and economic impacts) influencing attitudes toward tourism development.

According to the literature on general tourism impacts, some scholars have stated that the perceived positive impacts and perceived negative impacts of tourism significantly affect residents’ attitudes toward tourism development (Perdue et al. 1990; Látková and Vogt 2012). Local people will support tourism if they believe it will bring positive impacts. On the contrary, residents will not support tourism development when negative impacts from tourism are perceived (Ko and Stewart 2002; McGehee and Andereck 2004; Vargas-Sánchez et al. 2009; Látková and Vogt 2012).

In Katutura, Namibia, the main issues which influence perceived tourism impacts include anticipated income and benefits from tourism activities (Saarinen 2010). However, although economic impacts are very important, they are not always the most important. Pham and Kayat (2011) suggested that the inhabitants in Cuc Phuong National Park, Vietnam, valued sociocultural and environmental impacts of tourism more highly than its economic impacts, and that they support tourism development for reasons beyond its economic benefits.

Though tourism impacts are often divided into three factors (economic, socio-cultural, and environmental impacts), these are not the only way to evaluate tourism impacts. In the study “Residents’ Perceptions of Community Tourism Impacts”, Andereck et al. (2005) analyzed five factors of tourism impacts: community environment, community problems, community life, community image, community services, and community economy. This implies that division of tourism impacts perception depends on residents’ perception of different tourism aspects.

**Method and materials**

**Site: Ba Be National Park**

Ba Be National Park was established in 1992 and is located in Bac Kan, a mountainous province in northeast Vietnam. The area of the national park is approximately 10,048 ha. This national park is considered a model ecosystem for a forest on limestone mountains both within Vietnam and the world. In 2004, Ba Be National Park was recognized as one of Asia’s natural heritages. In the center of Ba Be National Park is Ba Be Lake, characterized by karst landscape with limestone cliffs around. At the World Fresh Water Lake Conference held in the USA in 1995, Ba Be Lake was recognized as one of 20 fresh water lakes in the world that needed to be protected.

The beauty of Ba Be National Park features not only dense evergreen forests and towering mountains, but also interesting and unique cultures. The national park is home to more than 3000 residents from various ethnic groups, including Tay, Nung, Dao, and Khinh. The Tay people occupy the majority of the park and were the earliest residents c. 2000 years ago.

Although Ba Be National Park has a lot of appealing tourism resources to attract tourists and develop tourism, tourism activities have not developed here due to lack of investment, knowledge of tourism business, and infrastructure, etc. In 2012 the number of tourists rose to almost 26,000 visitors, with foreigners representing 25% of the total. Although the number of visitors increased c. 6% in 2012 compared to 2011, revenue from tourism in the same year was more than VND1 billion.

A survey was designed with 27 items based on the research of Perdue et al. (1990), Gursoy et al. (2002), McGehee and Andereck (2004), Vargas-Sánchez et al. (2009), Pham and Kalsom (2011), Látková and Vogt (2012), and Sirivongs and Tsuchiya (2012). The 27 items were grouped into five sections: personal benefit from tourism (two items); community attachment (two items); positive tourism impacts perception (10 items); negative tourism impacts perception (eight items); and support for tourism development (five items). To measure these sections, a five-point Likert scale was utilized ranging from 1 (strongly disagree) to 5 (strongly agree).

**Sampling and data collection**

A total of 300 questionnaires were distributed and collected on 20–26 February 2013. Of these, 275 samples were obtained from Nam Mau, including 17 homestay businessmen, 15 forest rangers from Kbang Ninh Commune, and 10 from non-government organization (NGO) staff. During the data collection process, the author received assistance from three colleagues of Thai Nguyen University and local government officers to distribute the questionnaires and collect interview data. The questionnaires were given to households based on geographical accessibility. Of the 300 questionnaires distributed, 267 were returned (230 local residents, 14 businessmen, 15 forest rangers, and eight NGO staff), an 89% response rate.

**Data analysis**

First, descriptive analyses were utilized to determine locals’ characteristics in Ba Be National Park. Next, item sections (personal benefit, community attachment, positive tourism impacts perception, negative tourism impacts perception, and support for tourism development) were added to the SPSS system to explore new factors. Regression analysis was conducted in order to identify the important factors affecting support for additional tourism development. Finally, T-test
and ANOVA were utilized in order to find significant differences among residents’ characteristics in the factors considered as dependent variables.

Results

Respondents’ characteristics

Survey participants included 67.8% males and 32.2% females (Table 1). Most participants (84%) were aged 20–49 years old and 97.1% of respondents were members of the Tay ethnic group. One hundred and forty seven residents (58.1%) did not have jobs related to tourism, while 103 residents (40.7%) responded that their jobs were related to tourism. However, only 24.5% (61 people) said “yes” and 75.5% (188 people) said “no” to the question “Do you have any experience with providing services to tourists?” Some face-to-face interviews explained the discrepancy. The interview revealed that their jobs did relate to tourism, but they did not provide tourism services directly. Instead they held positions as forest rangers, community members providing agricultural produce to restaurants, NGO staff developing water systems and hygiene projects for residents in Ba Be, or local government staff involved in the Ba Be National Park management offices.

Table 2 shows the distribution of responses relating to residents’ personal benefit from tourism and community attachment. The mean score for personal benefit of 3.25 was considered a neutral level. There was a difference between the mean scores of the two items “Please indicate your feeling regarding the amount you benefit personally from tourism in your community” and “I would benefit from more tourism development in my community”. The mean score of the first item (2.76) indicated that, at the time residents answered, they had not received significant benefits from tourism development. The mean score of the second item (3.75) was close to the mean score of the anticipated benefit from future tourism development in the Ba Be National Park.

The respondents’ community attachment had a mean score of 3.76 and was neutral. This indicates that people in the national park are not strongly attached to their communities. However, 79% of the respondents indicated they would feel sorry if they moved far from their communities.

Frequency analysis (as shown in Table 2) describes items of respondents’ perception of tourism impacts. The results showed that the mean score of positive impacts perception was 3.85, with the highest level of 3.95 for the item “Increased demand for cultural and leisure activities”. The mean score for the item “Contribution to improving incomes and living standards” was 3.93 (SD = 1.024). Overall, the average degree of positive tourism impacts perception still received agreement, but it was at a low level. This result supported the neutral mean of personal benefit from tourism.

According to the frequency outcomes of the negative tourism impacts perception, 71.9% of respondents disagreed with the statement “Tourism in Ba Be National Park interferes with residents’ daily economic activities”. This finding is consistent with Pham and Kayat’s results in two research projects in Cuc Phuong National Park and Ha Long Bay, Vietnam (Pham and Kalsom 2011; Pham 2012).

In Table 2 the score of 4.21 illustrates the level of respondents’ support for additional tourism development in Ba Be, with 85.3% of respondents agreeing with “I would like to see more tourists in Ba Be National Park”. The item with the most agreement among residents was “Support for additional tourism development” and is consistent with the findings of Perdue et al. (1990).

Factors affecting residents’ support for additional tourism development

Factor analyses regarding personal benefit, community attachment, positive tourism impacts, negative tourism impacts, and support for additional tourism development were conducted. As shown in Table 3, factor analysis of positive tourism impacts generated three new variables named as Social and Environment Benefit (SEB), Personal Economic Benefit (PEB), and Local Benefit (LB). The total variance of the factors was 62.33%, with SEB accounting for 41.963%, PEB 11.907%, and LB 7.5%. Factor analysis of the negative tourism impacts perception suggested two new factors, including Negative Social and Environment Impacts (NSEI), and Negative Economic Impacts (NEI). NSEI variance was larger than NEI (48.5856% and 16.530%, respectively) and the total percent of variance was 65.39%.

Multiple regression analysis identified important factors affecting the support for tourism development (Table 4). Of the seven independent variables, Community Attachment (CA), SEB, and NSEI significantly influence the support for additional tourism development. From Table 4, the equation which forecast the factors influence on residents’ support for tourism development in Ba Be National Park is as follows:

\[
SUP = 2.47 + 0.32CA + 0.215SEB - 0.191NSEI
\]

If CA and SEB positively impact the support for tourism development, NSEI’s influence is negative. The partial correlation coefficient (\(\beta\)) implies the impacts of independent factors on the dependent variables. CA (\(\beta = .320\)) affected support the most, followed by SEB (\(\beta = .215\)) and NSEI (\(\beta = -.191\)). However, the standard coefficients (Std. \(\beta\)) imply that CA is the most important factor (Std. \(\beta = .401\)), followed by SEB (Std. \(\beta = -.260\), and SEB (Std. \(\beta = .212\)).
The T-test and ANOVA analyses were utilized to explore differences between factors in the research model and residents’ characteristics. The mean scores of the two “job status” groups in Personal Benefit (PB), CA, PEB, and SUP suggested that “Personal Benefit”, “Community Attachment”, “Personal Economic Benefit”, and “Support for Tourism Development” was higher for the tourism related job group than the group whose jobs were not related to tourism activities. However, community members in the non-tourism related job group have higher degrees of perception regarding negative social and environment impacts from tourism than the tourism related job group. Residents who have tourism related jobs perceived less negative economic impacts from tourism in the national park than those who do not. Moreover, the mean scores showed that people with tourism experiences had higher “Personal Benefit”, “Community Attachment”, “Personal Economic Benefit”, and “Participation in Tourism” related experience. Nevertheless, “experienced” groups perceived lower negative tourism impacts (economic, social, and environment) than not experienced group. The ANOVA test results suggested that differences in age significantly affected community attachment. Study participants aged 60 years and older featured greater attachment to their community than people aged 18–29.

**Discussion**

This research produces some interesting findings. Although many scholars have shown that local people will support tourism development if they feel tourism brings positive impacts (Perdue et al. 1990; Ko and Stewart 2002; McGeehee and Andereck 2004; Vargas-Sánchez et al. 2009; Látiková and Vogt 2012), in Ba Be National Park, only local residents who believe in social and environmental benefits from tourism support additional tourism development. Their perceptions of PEB from tourism do not correlate with support for tourism. This is contrary to the emphasis of McGeehee and Andereck (2004) on the role of economics in attitudes to tourism development. Moreover, perceptions of local benefits do not relate to residents’ support for tourism activities. A possible explanation could be that local residents’ knowledge of positive local tourism impacts (taxes, investment, and local economy supported by tourism) is limited. Residents do not understand the local benefits that tourism can bring, so their

Table 2. Frequencies for tourism attitudes and perceptions.

| Items                                                                 | Values (%) | 1 | 2 | 3 | 4 | 5 | n  | Mean | SD  |
|----------------------------------------------------------------------|------------|---|---|---|---|---|----|------|-----|

**Personal benefit from tourism**

Please indicate your feeling regarding the amount you benefit personally from tourism in your community.*

- Do you agree or disagree with the statement: "I would benefit from more tourism development in my community?"

Community attachment

- How much do you feel at home in this community?*
- How sorry or pleased would you be if you move away?*

Positive tourism impacts perception

- Improvement of investment, more development and better infrastructures
- Increase of opportunities for employment
- Contribution to improving incomes and living standards
- General improvement incomes of the locality, thanks to taxes relating tourism
- Tourism is one of the principle sources of income in the economy of the locality
- The money invested by the local authority to attract more tourists to the locality is a good investment
- Greater availability of recreational activities
- Greater knowledge of other cultures/communities
- Increased demand for cultural and leisure activities
- It strengthens the provision of cultural and leisure activities
- Improving quality of police and fire protection
- Greater protection of the natural environment
- Improvement of infrastructures (water supply, electricity, telephone, etc.)
- Improvement of roads in and around its boundary
- More support for the restoration and maintenance of historic buildings

Negative tourism impacts perception

- Tourism development in Ba Be National Park interferes with residents’ daily economic activities
- Increase in the price of products and services because of tourism
- Economic benefits only for a small number of residents
- The benefits generated by the tourism activity end up with companies and people from outside the locality
- Change/loss of traditional culture
- Problems of conflicts between residents and tourists
- Loss of tranquility in the zone
- Damage to the natural surrounding and to the countryside

Support for additional tourism development

- I would like to see more tourists in Ba Be National Park
- The government should increase its efforts to provide infrastructure to support tourism development in Ba Be National Park
- I support additional tourism activities in my community
- I support tourism having a vital role in this community
- Benefit from tourism should be widely shared by local people

Notes: 
- * = not at all; 2 = a little; 3 = moderate; 4 = a lot; 5 = very much.
- Remaining items: 1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; 5 = strongly agree.

Values (%)

- **Personal benefit from tourism**
  - 12.0 29.2 36.0 16.9 6.0 267 2.76 1.061
  - 3.4 8.6 16.1 53.2 18.7 267 3.75 .969

- **Community attachment**
  - 2.6 11.7 32.7 37.6 15.4 266 3.52 .976
  - 3.7 7.1 10.1 43.8 35.2 267 4.00 1.039

- **Positive tourism impacts perception**
  - 3.0 9.5 12.5 45.8 29.2 264 3.89 1.029
  - 0.6 6.7 14.2 56.5 21.7 253 3.92 .834
  - 3.0 6.8 17.1 39.9 33.1 263 3.93 1.024
  - 8.6 31.9 39.5 21.5 261 3.74 .899
  - 4.6 23.0 50.2 21.8 261 3.89 .810
  - 11.2 27.3 39.6 21.2 260 3.69 1.009
  - 4.5 27.8 47.7 19.5 266 3.82 .810
  - 4.2 24.0 47.1 24.3 263 3.91 .824
  - 1.1 4.9 23.7 45.8 21.2 264 3.82 .848
  - 2.6 29.1 39.2 24.2 265 3.75 1.010
  - 3.4 61.3 15.9 21.0 244 3.86 .968
  - 1.9 3.1 26.0 45.4 23.7 262 3.86 .879
  - 7.0 20.5 43.6 25.8 264 3.82 .997
  - 7.2 26.0 41.3 24.9 263 3.87 .839

- **Negative tourism impacts perception**
  - 25.4 46.5 19.6 5.8 2.7 260 2.14 1.953
  - 8.8 28.5 32.7 26.9 3.1 260 2.87 1.009
  - 12.3 30.0 30.4 23.5 3.8 260 2.77 1.063
  - 18.4 35.5 32.8 10.2 3.1 256 2.44 1.004
  - 19.8 35.7 24.7 17.9 1.9 263 2.46 1.058
  - 22.1 36.4 25.6 14.0 1.9 258 2.37 1.037
  - 18.3 37.0 23.3 21.0 4.2 262 2.48 1.031
  - 16.4 37.1 26.6 18.0 2.0 256 2.52 1.029

- **Support for additional tourism development**
  - .0 6.0 8.6 36.8 48.5 266 4.28 .859
  - .4 3.0 10.6 49.2 36.7 264 4.19 .771
  - 8.3 2.4 8.4 50.4 38.2 262 4.23 .759
  - .4 2.3 12.8 50.4 34.2 264 4.16 .756
  - .4 3.4 14.0 40.9 41.3 264 4.19 .830
perceptions of local benefits did not affect their support for tourism development.

Local residents’ attitude of support for tourism development does not depend on the perception of negative economic impacts, but hinged on their perception of negative social and environmental impacts.

Based on the results of testing hypotheses stated above, the social and environmental impacts from tourism significantly affect attitudes toward community for tourism development. Residents will support tourism activities in the community when positive social and environmental impacts are perceived. In contrast, they will not support developing tourism if they perceive negative social and environmental impacts from tourism. Regarding local residents’ attitudes toward support for tourism development, the role of social and environmental impacts is more important than the role of economic and local impacts. This finding is not consistent with earlier research. However, Pham and Kayat (2011) report similar findings in relation to Cuc Phuong National Park in Vietnam. Although Ba Be and Cuc Phuong National Parks are two different parks, their economic state and tourism are rather adequate. In the national park, international organizations helping residents develop tourism are recognized by inhabitants, including those with and without tourism experience. Surprisingly, there is no significant difference in perceptions between the groups concerning social and environmental impacts from tourism. The reason can be that tourism experienced and non-experienced people’s perceptions of social and environment benefit from tourism are rather adequate. In the national park, international organizations helping residents develop tourism (e.g. building toilets for visitors and educating local residents and visitors about environment conservation and tourism) have been conducted mainly in the hamlets of Po Lu and Pac Ngoi. These areas were targeted for distribution of questionnaires in this study. Social and environment benefits from tourism are recognized by inhabitants, including those with and without tourism experience.

This study investigated differences between residents with tourism experience and residents without. Results suggest that local residents with tourism experience perceive greater benefits from tourism and are more attached to their community than residents without such experience. Regarding the perception of tourism impacts, the two groups have notable differences in personal economic benefit, as well as negative social, environmental, and economic impacts from tourism. Residents with tourism experience perceive greater personal economic benefits and do not perceive greater negative impacts (social, environmental, and economic impacts) than residents without tourism experience. There is no significant difference in perceptions between the groups concerning social and environmental impacts from tourism. This study investigated differences between residents with tourism experience and residents without. Results suggest that local residents with tourism experience perceive greater benefits from tourism and are more attached to their community than residents without such experience. Regarding the perception of tourism impacts, the two groups have notable differences in personal economic benefit, as well as negative social, environmental, and economic impacts from tourism. Residents with tourism experience perceive greater personal economic benefits and do not perceive greater negative impacts (social, environmental, and economic impacts) than residents without tourism experience.

Local benefits from tourism are not the important difference in perceptions of tourism experienced and non-experienced group. This may be due to the same explanation related to local benefits. Local people in Ba Be National Park do not sufficiently understand the local tourism benefits. Consequently, there are not significant different perceptions between the two groups.

Surprisingly, there is no significant difference between resident attitudes with and without tourism experience toward support for additional tourism development, although resources of the national park, and economic impacts from tourism is not worth considering.

### Table 3. Factor analysis of positive tourism impacts perception

| Item description                                                                 | Factor loading | Reliability  |
|----------------------------------------------------------------------------------|----------------|--------------|
|                                                                                   | SEB  | PEB  | LB   | Cronbach’s α | Cronbach’s α if item deleted |
| Greater knowledge of other cultures/activities                                  | .578 | .866 |       |               |                             |
| It strengthens the provision of cultural and leisure activities.                  | .602 | .865 |       |               |                             |
| Improving quality of police and fire protection                                 | .659 | .858 |       |               |                             |
| Greater protection of the natural environment                                    | .811 | .851 |       |               |                             |
| Improvement of infrastructures (water supply, electricity, telephone, etc.)       | .724 | .860 |       |               |                             |
| Improvement of roads in and around its boundary                                  | .798 | .850 |       |               |                             |
| More support for the restoration and maintenance of historic buildings           | .667 | .856 |       |               |                             |
| Improvement of investment, more development and better infrastructures Increase of opportunities for employment | .690 | .861 |       |               |                             |
| Contribution to improving incomes and living standards                           | .814 | .794 |       |               |                             |
| General improvement incomes of the locality, thanks to taxes relating tourism    | .761 | .775 | .836  |               |                             |
| Tourism is one of the principle sources of income in the economy of the locality | .726 | .726 | .728  |               |                             |
| The money invested by the local authority to attract more tourists to the locality is a good investment | .762 | .588 |       |               |                             |

Eigen value: 6.015; 1.667; 1.044
Percentage of variance explained: 42.963; 11.907; 7.460
KMO value: .891
Sig. of Bartlett’s Test of Sphericity: .000

Notes: Extraction method: Principal component analysis. Rotation method: Varimax with Kaiser Normalization.
SEB: Social and environmental benefit
LB: Local benefit
PEB: Personal economic benefit

### Table 4. Results of multiple regression analysis of support for tourism development

| Independent variable            | β   | Std. β | t-value | p   |
|--------------------------------|-----|--------|---------|-----|
| Constant                       | 2.47|        |         | .000|
| Personal Benefit (PB)          | .073| .080  | 1.304   | .194|
| Community Attachment (CA)      | .320| .401  | 6.397   | .000|
| Social and Environment Benefit (SEB) | .215|        | 3.108   | .002|
| Personal Economic Benefit (PEB) | −.046| −.056 | −.794 | .428|
| Local Benefit (LB)             | −.028| −.031 | −.450 | .653|
| Negative Social and Environment Impacts (NSEI) | −.191| −.260 | −.389 | .000|
| Negative Economic Impacts (NEI) | .085| .102  | 1.532  | .127|

R² = .372, F = 17.502 (p = .000)

Note: **p is significant at the 0.01 level.**
tourism-experienced residents may participate in tourism activities more often than non-experienced residents. Direct interviews and questionnaire data show that both residents with tourism experience and those without support tourism development. This may result from Ba Be National Park being at involvement stage of tourism area cycle of evolution and the inhabitants support for developing tourism activities.

Finally, regarding the tourism related job status of residents, there is a significant difference between the two groups concerning perceptions of personal benefit from tourism, community attachment, personal economic benefit, as well as negative social, environment, and economic impacts from tourism. There is a significant difference in attitudes toward support for additional tourism development and participation in tourism development. However, the tourism related and non-related occupations of residents do not result in perceived differences in social, environmental, and local benefit from tourism development. The reasons are consistent with the explanations of residents with and without tourism experience which show that respondents perceive social and environmental benefits from tourism.

Conclusions

The results of this study contribute to tourism theory. First, the personal benefit from tourism that rural residents receive closely relates to and optimistically influences their perception of positive personal economic impacts. This supports that personal benefit from tourism is partial to economic indicators (Wang and Pfister 2008).

Local residents’ strength of community attachment significantly affects their perception of positive tourism impacts, including social, environmental, personal economic, and local benefits. This finding contrasts with Jurowski et al. (1997), which implied there were no significant relationships between community attachment and perceptions of economic, social, and environmental impacts from tourism.

Local residents’ perception of social and environmental impacts from tourism is more significant than their perception of economic impacts in support of tourism development. This study supports Pham and Kayat (2011), and partially supports research by Jurowski et al. (1997) which showed that residents’ attitudes toward nature-based tourism are affected by perceived economic and social impacts, rather than perceived environmental impacts. Although Jurowski et al. (1997) did not include perceptions of environmental impacts in support of nature-based tourism, “Perceived Social Impact” is an important factor concerning support for tourism activities. Combining the results of Pham and Kayat (2011), which was conducted in Cuc Phuong National Park in Vietnam, it can be seen that social and environmental impacts from tourism is an important issue for examination in studies of tourism development for local residents who depend on natural resources of their environment.

The implications of this study can be valuable for future studies undertaken in ecological or rural areas in which residents depend on natural resources for their livelihood.

Based on Butler’s tourism area cycle of evolution (Butler 1980), tourism in Ba Be National Park can be classified as being at the involvement stage. However, Ba Be National Park has remained in this stage due to lack of investment and its location in an ecological region with limited building and construction. Butler (1980) suggested that governments and organizations should provide and improve transportation, as well as tourism facilities for visitors. However, building in the park requires careful planning because this is an area requiring conservation of ecosystems and biodiversity.

As evident from the results of this study, residents’ perception of social and environmental impacts is an important factor in their attitudes toward support for tourism development. Consequently, planners of tourism projects should focus on raising local people’s perception of the positive social and environmental impacts from tourism. Currently, the 3PAD project IFAD (2012) is helping Ba Be residents through career training and education by increasing their awareness about environmental conservation and sustainable tourism.

Limitations

Almost all questionnaires were distributed at three of eight hamlets in Ba Be National Park. Pac Ngoi, Bo Lu, and Coc

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Table 5. Perception of research variables according to residents’ characteristics.

| Demographic characteristics | F1 (PB)    | F2 (CA)    | F3 (PFB)   | F4 (LB)    | F5 (SEB)   | F6 (NEI)   | F7 (NSEI)  | F8 (SUP) |
|-----------------------------|------------|------------|------------|------------|------------|------------|------------|----------|
| Gender                      |            |            |            |            |            |            |            |          |
| Male                        | 3.256      | 3.391      | 3.887      | 3.7265     | 3.8188     | 2.5244     | 2.4953     | 4.1370   |
| Female                      | 3.326      | 3.381      | 4.0094     | 3.8498     | 3.8854     | 2.4722     | 2.3250     | 4.2933   |
| T value                     | −984       | .122       | −1.005     | −1.205     | −.714      | .479       | 1.326      | −1.703   |
| Ethnic group                |            |            |            |            |            |            |            |          |
| Tay                         | 3.250      | 3.4017     | 3.9144     | 3.7628     | 3.8571     | 2.5548     | 2.4459     | 4.2130   |
| Kinh, Nung, Dao             | 3.3903     | 3.3355     | 4.0833     | 3.9524     | 3.9208     | 2.3833     | 2.5645     | 4.1871   |
| T value                     | −287       | .623       | −1.017     | −1.322     | −.502      | 1.163      | −.692      | .207     |
| Job status                  |            |            |            |            |            |            |            |          |
| Tourism related             | 3.456      | 3.540      | 4.1033     | 3.8265     | 3.9424     | 2.2074     | 2.2422     | 4.3282   |
| Non-tourism related         | 3.1122     | 3.2607     | 3.7913     | 3.7178     | 3.7944     | 2.7268     | 2.5714     | 4.1021   |
| T value                     | 3.685**    | 3.966**    | 2.983**    | 1.119      | 1.723      | −.5000**   | −2.838**   | 2.693**  |
| Tourism experience          |            |            |            |            |            |            |            |          |
| Experienced                 | 3.5082     | 3.6678     | 4.1287     | 3.8966     | 3.9563     | 2.2358     | 2.2321     | 4.3033   |
| Not experienced             | 3.1596     | 3.2746     | 3.8632     | 3.7216     | 3.8082     | 2.6208     | 2.5196     | 4.1600   |
| T value                     | 3.243**    | 4.387**    | 2.103*     | 1.614      | 1.515      | −3.308**   | −2.155*    | 1.475    |
| Age                         |            |            |            |            |            |            |            |          |
| 18–29 years (A)             | 3.3101     | 3.2897     | 3.9279     | 3.7658     | 3.8850     | 2.4733     | 2.3200     | 4.1844   |
| 30–39 years (B)             | 3.1761     | 3.3486     | 3.9403     | 3.8209     | 3.8190     | 2.5795     | 2.5076     | 4.0958   |
| 40–49 years (C)             | 3.2985     | 3.3846     | 4.0437     | 3.7031     | 3.8242     | 2.9460     | 2.6328     | 4.2061   |
| 50–59 years (D)             | 3.1346     | 3.5280     | 3.7143     | 3.6377     | 3.8654     | 2.6739     | 2.3942     | 4.3583   |
| 60 years or older (E)       | 3.2143     | 3.9429     | 4.1905     | 4.4286     | 4.0714     | 2.4286     | 1.8929     | 4.4571   |
| F value                     | .542       | .2893*     | .835       | 1.991      | .325       | .436       | 1.923      | 1.078    |
| Tukey’s test                | E = A      |            |            |            |            |            |            |          |

Note: *P is significant at the 0.05 level; **P is significant at the 0.01 level.
Toc Hamlets feature the highest tourism development. Thus, the results cannot be generalized to include all local residents’ awareness of tourism development. The residents in Pac Ngoi, Bo Lu, and Coc Toc Hamlet have better knowledge than residents living in other communities. Future research should choose a more representative sample to ensure the accurate perception of residents.

The content of the questionnaire is still fairly basic and lacks diversity. The items used in this study were based on previous research. Although creation of new items is very difficult, future research could produce more interesting findings if new items are added to questionnaires. Future research can utilize theory and reality to include innovative items in questionnaires.

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