A Multi-Mediation Model for the Antecedents of Pro-Tourism Behaviour Among Local Residents in the Alexandrian Community

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Abstract
The current study focuses on the pro-tourism behaviour as a major theme in tourism literature. It deals with residents in the context of place promotion and sustainable development. Tourism perceived benefits could motivate residents to engage in pro-tourism behaviours. Meanwhile, the effect of these perceived benefits could change according to other aspects, such as attitude toward tourism and residents' satisfaction with their own community (place satisfaction). Thus, this paper aims to construct a multi-mediation model to examine the antecedents of pro-tourism behaviour among local residents in the Alexandrian community. A sample of 505 of local residents in Alexandria city were randomly surveyed. Hypotheses verified using CFA and SEM with Amos v.25. Residents perception of tourism benefits was found to be a significant predictor of their pro-tourism behaviour. Moreover, results indicating a significant positive mediation effect of residents' attitude toward tourism and place satisfaction. This study adds to the pro-tourism behaviour's literature by providing theoretical and managerial insights.

1. Introduction
Local residents are key players in achieving sustainable tourism development and tourism promotion in the host communities (Hsu, Chen & Yang, 2019). They are not merely passive recipients or local customers, but also active collaborators and co-producers of products, services and policies (Zenker &Erfgen, 2014). Tourists undoubtedly interact with residents, who are either positively or negatively impacted directly or indirectly. Scholars argued that residents are a vital stakeholder in any destination, and their support is seen as a dynamic prerequisite for destination’s sustainability (Ribeiro, Pinto, Silva, & Woosnam, 2017). Additionally, local residents play a critical role in marketing destination brand via unplanned communication, such as word of mouth (Braun, Kavaratzis & Zenker, 2013).

Because of the growing resident-tourist interactions in tourism activities, residents’ backing for tourism promotion, as well as participation and involvement in tourism development, are required to develop and boost tourist destinations (Chen & Raab, 2012; Hsu et al., 2019). At all levels, residents’ behaviors and practices have a great impact on tourists’ experiences, from seeking travel information to the actual travel experience (Chen & Dwyer, 2018). Consequently, residents’ pro-tourism behaviour is examined in this study as one of the most important issues in tourism literature. Residents' pro-tourism behaviour (RPTB) can be described as residents' support for tourism development, welcoming and ambassadorial behaviour, and involvement in environmentally responsible behaviour. (Hu, Tuou& Liu, 2019).
By reviewing literature, it was discovered that residents' perception of tourism benefits was the most important factor that could motivate residents to engage in pro-tourism behaviour (Homsud, 2017; Gonzalez, Coromina & Galí, 2017). Meanwhile, the effect of these perceived benefits could vary depending on other aspects, such as attitude towards tourism and satisfaction with their own community. Several theories have been proposed to explain residents’ perceptions and attitudes toward tourism impacts. The theoretical perspective of this study is governed by social exchange theory (SET). SET was extensively used in the earlier literature to explain and comprehend the ideas, attitudes, perceptions, and levels of support held by locals in the context of tourism activity (Gu & Ryan, 2008; Deery, Jago & Fredline, 2012; Lee, 2013; Boley, McGehee, Tom, 2017; Hsu et al., 2019). According to this theory, human actions are steered by principles of reciprocity. Because human behaviour is directed by thoughts of exchange, any connection will result in a resource exchange only if individuals believe they would gain from it (Andereck et al., 2005).

While the beliefs and attitudes of local people about tourism appear to be significant in determining their behaviour, this is not generally the case in local communities, where residents' voices are sometimes ignored. The rapid growth of the tourism industry has had both positive and negative effects on local communities, such as the Alexandrian community. These effects can be seen in a wide range of areas, from economics to social and environmental concerns. As a result, residents hold numerous attitudes and acuities towards tourism development, which definitely affects their pro-tourism behaviour. Newly, in the Spanish media, the word turismojobia emerged to outline residents' reaction to the excessive expansion of tourism (Szromek, Kruczek & Walas, 2019; Capocchi, Vallone, Pierotti & Amaduzzi, 2019). Furthermore, the term tourist saturation was also used to describe the oversaturation of destinations as a result of tourism (Simancas Cruz, & Peñarrubia Zaragoza, 2019). Considering that, knowing how residents in local communities perceive tourism benefits could help making more proactive tourism plans and managerial decisions.

In light of the foregoing, this research was conducted in Alexandria, which is one of the local communities that facing some disputes between locals and tourists. During the peak season, Alexandrians bear the brunt of a slew of negative consequences associated with over-tourism, in other words, tourist overcrowding, including rising rents, passage, as well price rises, noise, strain on local infrastructure, disruption of daily life, and alteration of place lineaments, as well as the seepage of tourism economic benefits, which can exacerbate resident discontent (Ragab, Attia & Foaud, 2021). These undesired results may result in resident unhappiness, discomfort, and negative behaviours. Consequently, some voices of concern with the tourism activity have appeared in the Alexandria community, recalling the necessity to assess residents' attitudes, satisfaction, perception in the context of tourism in order to encourage residents' pro-tourism behaviours.

As stated by earlier studies, residents' participation and support are pivotal to the survival of sustainable tourism in local communities (Sharpley, 2014; Canalejo, Tabales & Cañizares, 2014; Ribeiro et al., 2017). The first stage in gaining residents' support for tourism and strengthening their pro-tourism behaviour is to study and understand their perceptions and attitudes toward tourism (Liu, 2019). Various studies have reviewed residents’ pro-tourism behaviour in relation to different issues such as: perceived benefits of tourism, place attachment, economic benefits, tourism development, destination social responsibility, place
image, emotions, involvement in the tourism industry and other concerns (Gursoy, Chi & Dyer, 2010; Woosnam, 2012; Hsu et al., 2019; Hu et al., 2019). Despite that, there are four major research gaps in the exploration of residents' pro-tourism behaviour. First, there has been few empirical studies on how tourism perceived benefits impact residents' pro-tourism behaviour under the mediating role of residents’ attitude toward tourism and place satisfaction in a structural model. Second, to the author’s knowledge, there seemed to be no studies have been undertaken in this context in Egypt, especially in the Alexandrian community. Third, while attitudes and pro-tourism behaviour have been extensively studied in the tourist literature, former researches have concentrated on attitudes as antecedents of pro-tourism behaviour. Using it as a mediator has never been earlier studied in the Egyptian cultures. Fourth, despite place satisfaction has an important focus within the broader area of pro-tourism behaviour, its role as a mediator between residents' perception of tourism benefits and their pro-tourism behaviour has received little concern. Minor studies have considered residents satisfaction with their own community as a predictor of their pro-tourism behaviour.

Hence, the current study may provide evidence of Alexandrian residents' perceptions, attitudes, and intended behaviours toward tourism, which may assist tourism planners and policy makers in strategising tourism plans. To accomplish this, the following research question is posed: How do Alexandrians view the benefits of tourism? And what might be the implications of these perceptions in terms of their attitude, satisfaction, and pro-tourism behaviours?

2. Theoretical background and hypotheses development

Perceived benefits of tourism (PBoT) and residents’ pro-tourism behaviour (RPTB)

Destination residents’ pro-tourism behavior can be described as their support for tourism development such as being welcoming and friendly to tourists, as well sharing in environmentally responsible behavior like participating in the preservation of the environmental and natural resources, ensuring sustainability in tourism development, and tourism promotion in their communities (Chen & Dwyer, 2018).

According to Social Exchange Theory (SET), if residents understand that they would obtain the potential benefits of tourism without incurring any expenses, they are more likely to participate in community-based tourism development and engage in pro-tourism behaviours (Nunkoo & Gursoy, 2012). In this regard, Rua (2020) demonstrated that the term "benefits" is also used to refer to the positive impacts of tourism activity perceived by local people. Based on this theory, a growing number of studies have found that if locals perceive benefits, they are more willing to support tourism. For example, Ap (1990), who was the first to apply SET theory, discovered that residents' perceptions of tourism benefits are related to their intention to be a strong advocate of tourism in their community. Furthermore, Oviedo-Garcia et al., (2008) investigated it in Santiponce and discovered that RPTB is influenced by the conditions of the local economy (i.e. residents' perception of economic benefits of tourism).

Gursoy & Rutherford (2004) who argued that residents' behaviour toward tourism are shaped by their expectations of the economic, social, and environmental consequences. Other studies advocated a positive association between tourism support behaviour and perceived social and cultural advantages (Besculides et al., 2002). Since residents are ambassadors and integrated part of a place promotion and development, Henderson (2007) demonstrated that establishing and boosting tourism should not only be concentrated on tourists but should also take into consideration the local residents' opinions, attitudes, and behaviours in the area as well. Residents are the “bread and butter” of any host community, as described by Braun et al. (2013,
Correspondingly, Amuquandoh (2010) discussed how residents who worry that tourism would damage the environment are opposed to development, while others view tourism as an inducement to converse and protect the natural environment. This was also confirmed by Brida, Disegna & Osti (2011) and Ogorelc (2009) who revealed that negative perceptions of tourism had a detrimental impact on their support for the industry. In addition, residents are a significant target market, able to provide trustworthy information about their community to tourists (Braun et al., 2013).

It is worth noting that tourism can provide direct and indirect benefits to residents. Tourism benefits could be inspected through residents’ perceptions on increased employment or business opportunities, upgrade city appearance, provide better quality of life, leisure prospects, and develop socializing (Andereck et al., 2005; Nunkoo and So, 2016; Rua, 2020) which were included later in the questionnaire. Scholars concluded that the positive economic, social, and cultural impacts were definitely interrelated with the supportive behaviour for tourism (Lee, 2013; Gursoy et al., 2010). Based on these arguments, evaluating perceived benefits of tourism (PBoT) is critical for predicting RPTB. So, this study presents the following hypothesis:

**H1:** Perceived benefits of tourism (PBoT) has a positive effect on RPTB.

**The mediation role of residents’ attitude toward tourism (RAtT)**

As noted by Abun & Racoma (2017), an attitude is an expression of favourable or unfavourable feelings toward a person, destination, product, object, or occasion. Gu & Ryan (2008) asserted that attitude is a critical notion established in social psychology that refers to a propensity toward places, people, behaviours, and other characteristics of one's environment. According to these explanations, attitude and behaviour (intention) are thought to be inextricably linked. Scholars underlined that residents’ attitudes and behaviour are imperative aspects in local communities as interaction between tourists and residents has a considerable effect on visitors’ satisfaction with the destination (Pizam et al., 2000). However, the influence of RAtT on their subsequent pro-tourism behavior is still under-examined (Sharpley, 2014). Andriotis (2002) found that RPTB or anti-tourism behaviour can be evaluated by exploring residents’ attitudes, which can give an indication of how much residents accept tourism. However, Martín, Sanchez & Á. Herrero (2018) demonstrated that residents’ attitudes can be classified into two types: attitudes toward tourism and attitudes toward tourists. They discovered that each had a positive effect on RPTB. In summary, Stedman (2002) concluded that individuals with positive attitudes act in a manner that approaches, supports, or enhances tourism, whereas individuals with negative attitudes avoid, oppose, or hinder tourism activity.

On the other hand, many prior researches based on SET have found that if locals perceive advantages of tourism, they expressively and absolutely support tourism activity. For instance, in a study conducted by Ribeiro et al. (2017), personal benefits identified as one of the antecedents of attitude and RPTB. Nunkoo and So (2016) found that those who benefit from tourism tend to have a more favourable attitude on it than those who don't. A similar research claimed that locals who derive personal benefits are strong subsidizers for tourism developments compared to others, implying pro-tourism behaviour.

Findings in earlier literature reinforced that suggest that residents tend to boost tourism if they have a good attitude towards the same (Homsud, 2017). Nunkoo and Gursoy (2012) argued that RPTB is typically impacted by their attitude to tourism. Based on the above, the existing literature demonstrate accumulating evidence for the positive association between perceived
benefits of tourism PBoT and positive attitudes towards tourism (Davis, Allen & Cosenza, 1988; Nicholas, Thapa & Ko, 2009). On the other hand, community residents’ attitudes towards tourism has been proved to influence residents' pro-tourism behaviours (Eusébio, Vieira & Lima, 2018). By linking these evidences, a mediating role of residents' attitude toward tourism might logically be predictable. Therefore, this study formulates the following three research hypotheses:

H2: Perceived benefits of tourism has a positive effect on RAit.

H3: Residents’ attitude toward tourism has a positive effect on RPTB.

H4: Residents’ attitude toward tourism mediates the relationship between PBoT and RPTB.

The mediating role of place satisfaction (PS)

Place satisfaction (PS) is a bond that residents have with their own community (Stedmann,2002). It is described as residents’ personal evaluation and judgments about the place regarding a place, product or service (Chen & Dwyer, 2018). Residents satisfaction with their own community drive their word of mouth. It also considered an important predictor of tourism-related behaviors as unsatisfied or miserable residents will ultimately convey their emotional state to tourists who in turn avoid destinations where they feel undesirable (Nunkoo & Ramkissoon, 2011).

Residents’ satisfaction, according to Sirgy et al. (2000), is multidimensional in nature, encompassing numerous scopes such as satisfaction with society circumstances, social and family life, community services, infrastructure, tourism services, available resources, work, and financial life. Unsatisfied or discouraged residents may ultimately be unwilling to support tourism industry or engage in a sustainable behaviour (Cañizares, Tabales & García, 2014). They will also spread negative feelings to tourists which results in undesirable resident-tourist interactions (Stedmann,2002).

At the same context, sufficient evidence exists in the study of Gursoy & Rutherford (2004) who implied that PS is influenced by perception of tourism impacts and may be valuable in enhancing residents' support behaviours for tourism development. Other researches that explore the association between residents’ perceptions of tourism benefits and PS found that a high degree of satisfaction among residents, a high level of pro-tourism behaviours can be achieved (Ko & Steward, 2002).

This suggests that place satisfaction can be one of the key mechanisms by which residents’ perception of tourism benefits is linked to their pro-tourism behaviours. In sum, all these arguments imply that place satisfaction is a potential factor in overseeing the effects of tourism perceived benefits among residents in the Alexandrian community on their pro-tourism behaviour. Residents satisfaction in the context of their region may help promote their pro-tourism behaviours. Explicitly, place satisfaction shows the mediational pathway through which residents' perception of tourism benefits impacts their pro-tourism behaviors. Hence, we present the following hypothesized relationships:

H5: PBoT has a positive effect on PS.

H6: PS has a positive effect on RPTB.

H7: PS mediates the relationship between PBoT and RPTB.
A conceptual framework based on the foregoing arguments and assumptions is offered to explain the antecedents of RPTB in the Alexandrian community.

Figure (1) Conceptual framework of the study

3. Research Methodology

In order to describe the phenomenon under investigation and its linked variables, the current research adopts a descriptive analytical methodology. Residents of Alexandria were the focus of this study. Depending on a quantitative methodology approach, a survey questionnaire was chosen as one of the best approaches for collecting and analysing data, especially in big samples. Correlations between different factors in the current study can be discovered using this method, leading to accurate and dependable conclusions (Neuman, 2003).

Sampling and Data Collection

The current research was carried out in Alexandria, which is widely considered as a popular tourist destination in Egypt. Alexandria is famous for its pleasant weather, convenient location, and abundance of interesting cultural and historical monuments (Alexandria Governorate, 2020). A study population includes residents in the Alexandrian community. An online survey was created using Google Forms to collect data. A questionnaire was distributed via several social media platforms to a random sample of residents. Participants provided a total of 505 responses, demonstrating a sufficient sample size in line with Krejcie & Morgan (1970). The sample size is also deemed adequate in accordance with Kline (2011), who noted that 10-20 cases per element in a survey is a reasonable level.

Data was collected from November 2021 to the end of January 2022. As a method of rating responses, the structured questionnaire is designed with a 5-point Likert scale ranging from strongly disagree (1) to strongly agree (5). The questionnaire contains five sections. Research's constructs were operationalized using scales found in prior literature, as follow: Section (A) highlights the socio-demographic details such as: gender, age, qualification, career and income. Section (B) evaluates residents’ perception of tourism benefits via four items (e.g. Tourism creates more job opportunities) proposed by Rua (2019). Section (C) examines residents’ pro-tourism behaviour with 5 statements borrowed from Ribeiro et al. (2017) (e.g I am willing to converse the natural and environmental resources that tourism relies on & I am willing to provide tourists with information and contribute to their overall experience). Section (D) explores residents’ attitudes toward tourism through 6 items which were borrowed from
Homsud (2017) (e.g. I believe tourism is a good activity for Alexandria). Finally, section (E) aims at investigating place satisfaction from residents’ viewpoint (e.g. I’m satisfied with tourism in the Alexandrian community) through four statements derived from Andriotis (2002), Rua (2020) and Alrwajfah, García & Cortés-Macías (2019).

Data analysis techniques

Initially, descriptive statistics such as frequency, percentage, and mean values were calculated to summarise the demographic information about respondents using IBM SPSS Statistics 22. To investigate the research hypotheses, Amos 25 was employed to conduct Confirmatory Factor Analysis (CFA) and Structural Equation Modelling (SEM). Then, a two-phase approach was performed to test this model as endorsed by Anderson and Gerbing (1988). Phase one, the model’s validity and reliability were assessed, followed by a test of the model’s goodness of fit. Phase two, the hypothesised structural model was established, and a mediation test was carried out using Baron & Kenny (1986)'s approach.

Data review and analysis

Sample Profile

The first group of questions in this study involved personal data. Results showed that over half of the respondents are males (n= 298, 59.1%), while females represent (n=207, 40.9%) of the sample. Concerning age range, the majority were in the age category 31 to 45 (n=309, 61.2%), while respondents who ranged between 18 to 30 years old representing (n=111, 22%), followed by age range 46 and older (n= 85, 16.8%). As for the educational level, results showed that (n=378, 74.9%) were undergraduate/associate degree, while (n=127, 25.1%) held a post graduate degree. Concerning participants career, results showed that most of the sample (n=338, 66.9%) occupied non-tourism related jobs, while the least proportion (n=167, 33.1%) occupied tourism related job. Finally, concerning the monthly income, results indicated that the highest percentage (n=224, 44.4%) went for those who received income ranged between 3000-5000 L.E per month, followed by (n=156, 30.9%) who received monthly income ranged between 5000-7000, while few respondents received monthly income less than 3000 L.E (n=83, 16.4%), and the remaining percentage (n=42, 8.3%) went for those whose income exceed 7000 L.E per month.

Measurement Model

In order to check the convergent and discriminant validity of the measurement model, a CFA was performed with the maximum likelihood estimation method. Primarily, regarding items loadings for research constructs, as illustrated in table (1) all values were above 0.5 and were statistically significant, approving that all items in the model are tremendously allied with its construct (Hair, Black, Babin, and Anderson, 2010; Bean & Bowen, 2021). It is worth mentioning that items had low loadings with a coefficient score less than 0.4 as were dropped to enhance the analysis' results as recommended by DiStefano, Zhu & Mindrila (2009). Cronbach's alpha, composite reliability (CR), and an assessment of the average variance extracted (AVE) for each construct were calculated to confirm the measures' reliability (Yeh et al., 2020). Cronbach's alpha is a statistic used to determine a construct's internal consistency (Bhattacherjee, 2012). As displayed in table (2) Cronbach alpha scores (α) for the research variables range between 0.802 and 0.895, exceeding 0.700 and closer to 1, which exhibiting high internal consistency according to Nunnally & Bernstein (1994) and Hair et al. (2013). Additionally, the CR's values confirm that each factor had an acceptable value ranging from 0.811 to 0.931, beyond the edge (0.7) as established by Hair et al. (2009) for construct acceptability. So, high construct dependability was verified for study variables.
Table (1) Constructs validity and reliability

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Scale items coding</th>
<th>S.L.</th>
<th>(a)</th>
<th>AVE (≥0.5)</th>
<th>CR (≥0.7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived benefits of tourism</td>
<td>PBoT1</td>
<td></td>
<td></td>
<td>.843***</td>
<td>.802</td>
</tr>
<tr>
<td></td>
<td>PBoT2</td>
<td></td>
<td></td>
<td>.866***</td>
<td>.770</td>
</tr>
<tr>
<td></td>
<td>PBoT3</td>
<td></td>
<td></td>
<td>.902***</td>
<td>0.931</td>
</tr>
<tr>
<td></td>
<td>PBoT4</td>
<td></td>
<td></td>
<td>.898***</td>
<td></td>
</tr>
<tr>
<td>Residents pro-tourism behaviour</td>
<td>RPTB1</td>
<td>.891***</td>
<td>.895</td>
<td></td>
<td>.680</td>
</tr>
<tr>
<td></td>
<td>RPTB2</td>
<td>.898***</td>
<td></td>
<td></td>
<td>.913</td>
</tr>
<tr>
<td></td>
<td>RPTB3</td>
<td>.866***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>RPTB4</td>
<td>.699***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>RPTB5</td>
<td>.750***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residents’ attitude toward tourism</td>
<td>RAiT1</td>
<td>.700***</td>
<td>.823</td>
<td></td>
<td>.590</td>
</tr>
<tr>
<td></td>
<td>RAiT2</td>
<td>.851***</td>
<td></td>
<td></td>
<td>.811</td>
</tr>
<tr>
<td></td>
<td>RAiT3</td>
<td>.745***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Place satisfaction</td>
<td>PS1</td>
<td>.871***</td>
<td>.865</td>
<td></td>
<td>.729</td>
</tr>
<tr>
<td></td>
<td>PS2</td>
<td>.865***</td>
<td></td>
<td></td>
<td>.915</td>
</tr>
<tr>
<td></td>
<td>PS3</td>
<td>.872***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS4</td>
<td>.805***</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Next, the researcher assessed the construct validity by measuring convergent and discriminant validity. The AVE was analyzed to determine the measurement model's convergent validity. As shown in table (1), the scores of AVEs are greater than Fornell and Larcker (1981)'s recommended values (≥0.5), guaranteeing convergent validity. Following that, the researcher determines the variables' discriminant validity for each potential pair of constructs. On the basis of Hair et al. (1998), each variable's squared roots must exceed the highest squared correlation coefficients of the other horizontal and vertical constructs. Table (2) displays the correlation matrix and square roots of AVEs for the examined constructs that meet the standard value.

Table (2) Descriptive statistics and analysis of discriminant validity.

<table>
<thead>
<tr>
<th>Constructs</th>
<th>x</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.PBoT</td>
<td>4.169</td>
<td>0.8912</td>
<td>0.877</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.RAiT</td>
<td>4.607</td>
<td>0.9217</td>
<td>0.612**</td>
<td>0.768</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.PS</td>
<td>4.166</td>
<td>0.8770</td>
<td>0.671**</td>
<td>0.760**</td>
<td>0.854</td>
<td></td>
</tr>
<tr>
<td>4.RPTB</td>
<td>4.215</td>
<td>0.8558</td>
<td>0.657**</td>
<td>0.606**</td>
<td>0.689**</td>
<td>0.825</td>
</tr>
</tbody>
</table>

Note: x = Mean, SD= Standard Deviation, ** p < 0.01.
The bold diagonal elements represent the square root of the AVEs.

As demonstrated in the above table, the square roots of AVEs (varying from 0.768 to 0.854) are all significantly greater than the values of any paired factor association, indicating strong discriminant validity (Awang, 2015). In terms of study construct mean scores, residents reported a positive perception of tourism benefits (overall x =4.196). Similarly, a high level of pro-tourism behaviour is displayed by residents (overall x =4.215). Besides, residents' attitude toward tourism had the highest mean value (overall x =4.607). However, the overall mean score of residents' satisfaction with their own community is reported to be high (overall x =4.166). According to these findings, residents are aware of the positive effects of tourism, which is reflected in their attitude, satisfaction, and pro-tourism behaviours.
Model fit

Various model fit indices are used to judge model adequacy (Hooper, Coughlan, & Mullen, 2008; Hair et al., 2013; Awang, 2015). The chi-square statistic $\chi^2$/df, GFI, AGFI, RMSEA, CFI, and NFI were all calculated in this study to verify the model fit.

The goodness-of-fit statistics results, as exposed in Figure (2), indicate that the model was adequate as all fit indices met the required cut-off values based on past researchers’ recommendations (Mulaik et al., 1989; Mueller, 1996; Awang, 2015).

Structural model results

Direct effects

A latent variable-based SEM after the CFA was performed. The path coefficients for the direct relationships between the research variables are presented in table (3). Based on Baron and Kenny (1986)’s approach, the direct impact of the (IN.V) independent variable (PBoT) on the (DN.V) dependent variable (RPTB) was calculated initially before introducing the mediators in the structural model. A significant influence of perceived benefits of tourism on residents’ pro- tourism behaviours was found ($\beta=0.688$, CR= 15.804, $p<0.001$), validating $H_1$. This finding proves that a high level of pro-tourism behaviour attributed to a high perception of tourism benefits among residents in the Alexandrian community. Then, RAtT and PS were modelling as mediators in the structural model as demonstrated in figure (2).

![Figure (2) Path coefficient for the hypothesized relationships in the model with both mediators](image)

Table (3) Path analysis and Hypothesis Testing (Direct relationships)

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Path</th>
<th>Std-Estimate</th>
<th>S.E.</th>
<th>C.R.</th>
<th>P</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>PBoT $\rightarrow$ RPTB</td>
<td>.274</td>
<td>.081</td>
<td>3.736</td>
<td>.001</td>
<td>Accept</td>
</tr>
<tr>
<td>H2</td>
<td>PBoT $\rightarrow$ RAtT</td>
<td>.737</td>
<td>.059</td>
<td>13.731</td>
<td>.001</td>
<td>Accept</td>
</tr>
</tbody>
</table>

58
The previous tabulated data in Table 3 clarify that tourism perceived benefits significantly contributes to residents' attitude toward tourism (β=0.737, CR=13.731, p<0.01). This indicates that the more benefits of tourism activity residents recognize, the more positive attitudes towards tourism are exhibited. Thus, H2 is also supported.

Additionally, the hypothesised influence of tourism perceived benefits in improving place satisfaction as proposed in H5 is also accepted as this path is positive and significant (β=.752, CR=17.324, p<0.01). Both residents' attitude toward tourism (β=0.160, CR=2.686, p<0.01) and place satisfaction (β=0.426, CR=7.512, p<0.01) significantly impact residents' pro-tourism behaviours, thereby verifying hypotheses H3 and H6 respectively.

Mediating effects

The study examined the hypothesized mediation role of RAiT (figure 3) and PS (figure 4) by employing the procedure developed by Baron and Kenny (1986)'s approach. A bias-corrected bootstrap was measured to test indirect relationships was estimated.

Considering the mediating effect of residents' attitude toward tourism, results obtained from bootstrapping analysis display that the indirect and total effect of tourism perceived benefits on residents' pro-tourism behaviours through RAiT are statistically significant as follows respectively (β=0.305, p<0.005 & β=0.689, p<0.006). This implies a definite mediating role for residents' attitude toward tourism, which supports H4. Nevertheless, when using RAiT as a mediator variable, the direct impact of PBoT on RPTB (H1) is still significant (β=0.510***), reflecting a partial mediation effect.

**Table (4) Testing mediation effect**

<table>
<thead>
<tr>
<th>Hypothesised path: PBoT -- &gt; RAiT -- &gt; RPTB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicators</td>
</tr>
<tr>
<td>-------------</td>
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<tr>
<td></td>
</tr>
<tr>
<td>Bootstrapped</td>
</tr>
<tr>
<td>BC.LO</td>
</tr>
<tr>
<td>BC.UP</td>
</tr>
</tbody>
</table>

**Table (4) Testing mediation effect**

<table>
<thead>
<tr>
<th>Hypothesised path: PBoT -- &gt; PS -- &gt; RPTB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicators</td>
</tr>
<tr>
<td>-------------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Bootstrapped</td>
</tr>
<tr>
<td>BC.LO</td>
</tr>
<tr>
<td>BC.UP</td>
</tr>
</tbody>
</table>
Indicators | In.eff. | Sig | T.eff. | Sig | Mediation | Decision |
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bootstrapped 95% CI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>BC.LO</td>
<td>0.271</td>
<td>0.688</td>
<td>0.004</td>
<td>Partial</td>
<td>Accept</td>
</tr>
<tr>
<td></td>
<td>BC.UP</td>
<td>0.477</td>
<td>0.762</td>
<td>0.007</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In.eff: indirect effect, T.eff: total effect, * p < 0.05, ** p < 0.01, *** p < 0.001

Afterward, when introducing place satisfaction as a mediator, findings reveal that the indirect and total effect between the independent variable and dependent variable under the mediating effect of place satisfaction are significant as follows respectively (β=0.377, p<0.004) and (β=0.688, p<0.007).

Additionally, findings shows that the β value of the standardized direct effect of PBoT on RAtT drops less noticeably than when RAtT is used, but it is also still significant, confirming a partial mediation of place satisfaction and verifying H7. This indicates that place satisfaction can mediate the relationship between the tourism perceived benefits on residents’ pro-tourism behaviours more than residents’ attitude toward tourism.

4. Discussion and conclusion

The present study adds to the body of knowledge of tourism literature concerning the relationship between PBoT and RPTB, under the mediating role of RAtT and PS. A multi-mediation model via Amos 25 was developed to assess the inter-relationships and verify the research hypotheses. The model has been empirically tested among residents in the Alexandrian community. This has not been explicitly examined in tourism research, especially in Egypt, despite its significance in the tourism industry. With the above, the findings of this study consequently provide a novel contribution to tourism literature.

Initially, the findings of the study show a good fit for the hypothesized model and the Beta coefficients of the seven hypotheses were statistically significant in the predictable path. The results support the use of the social exchange theory to explicate RAtT and RPTB. Along with Xie, Bao & Kerstetter (2014) and Nunkoo & So (2016), the outcomes of this study evidences that residents’ perception of tourism benefits has a significant and direct effect on their pro-tourism behaviour. This concludes that by communicating the positive benefits of tourism to residents, their desire to practice pro-tourism behaviours could be encouraged. This result is also in line with what was proven by Su, Huang & Huang (2018)'s research in which he noted that residents' support for tourism is affected by the tourism positive and negative impacts they perceive. Nunkoo and Ramkissoon (2011) have made similar observations. They proved a statistically significant direct relationship between citizens' perceptions of tourism's beneficial effects and their industry-friendly behaviour. So, Choo, Park & Petrick (2011) discussed that local people should be among the primary beneficiaries of tourism by reaping economic, environmental, and social advantages, as well as participating in tourism development in order to exhibit pro-tourism behaviors.

In this regard, Scholars such as Davis et al. (1988), Lankford (1994), Royo & Ruiz (2009), Andereck & Nyaupane (2011), and Mehdiabadi et al., (2021) claimed that tourism is understood as a tool for economic development for the local community by providing returns such as business opportunities, infrastructure improvement, , revenue generation, recreational opportunities, tourism services, and so on.

Supporting findings of Prentice (1993), the current study prove that maximizing residents' perception of the advantages that tourism development can bring and reducing the negative consequences could affect their pro-tourism behaviour. Otherwise, Keogh (1990) contended that negative impressions reduce community support for tourism.
Another important conclusion of this study is the confirmation of the partial mediation effect of RAfT. This result is in agreement with Homsud (2017) which confirmed that attitude toward tourism mediates the association between RPTB and other factors. This implies that RPTB can be upgraded through enhancing their attitudes toward tourism. Such finding goes in line with other studies who confirmed that RAfT is mostly influenced by their attitudes toward the impacts of tourism activity (Lepp, 2007). Chen and Raab (2012) established an integrated model that proves the positive connection between RAfT and tourism-friendly behaviour for tourism in local communities. Woosnam and Aleshinloye (2013) have also concluded that residents' good sentiments and attitudes toward tourism benefits will lead to pro-tourism behaviour. In a same manner, another study directed by (Ribeiro, et al., 2017) implied a significant connection between residents' attitude towards tourism and their degree of welcoming tourists. This demonstrates the importance of residents in both tourism development and visitor experience. Additionally, in a research conducted by Homsud (2017) personal benefits were found to be a significant predictor of locals' attitude toward tourism. This consistent with Vargas Sanchés et al. (2007) who stated that host communities are influenced by the perceived impact of tourism. Similarly, Allen et al. (1993) demonstrated that residents will have a more favourable attitude towards tourism if they obtain positive consequences from their connection with tourists and tourism activity. Hence, it can be claimed that improving residents’ perception of tourism benefits can help encourage their attitude toward tourism and thus increase their pro-tourism behaviour.

In regards to the mediating role of PS, findings obtained from this study authorize that the aforementioned construct partially mediates the association between PBoT and RPTB. This implies that residents' satisfaction of their own community encourages pro-tourism behaviours by increasing positive impacts of tourism. This result is consistent with the perspective of Mehdiahabi et al. (2021) in which they discussed that when the perception of tourism benefits is accompanied with a good satisfaction, residents' readiness to participate and develop pro-tourism behaviour will increase. Several scholars have revealed a positive relationship exists between residents’ perceptions of the advantages of tourism development and their satisfaction (Andereck et al., 2005; Xie, Bao et al., 2014; Woo, Kim, & Uysal, 2015; Alrwajfah, García & Cortés-Macías, 2019). So, Vosughi et al. (2012) established that recognizing the factors affecting the satisfaction of the host community should be considered to achieve successful tourism development.

In short, it can be concluded that improving locals' attitudes, perceptions and satisfaction with tourism activity in their own community will stimulate pro-tourism behaviour. So, Alrwajfah, García & Cortés-Macías (2019) revealed that it is critical to assess locals' opinions, attitudes, and satisfaction when encouraging sustainable behaviours in tourism destinations. Correspondingly, Ko & Steward (2002) asserted that long-term tourism growth would be impossible without supportive host communities. Hence, when it comes to developing pro-tourism behaviours in tourism destination, residents are the most important participants. They could contribute to the success of tourism industry by engaging in pro-tourism behaviours, displaying positive attitudes toward tourism, welcoming tourists, and actively helping them. Undoubtedly, all of these practices could contribute in achieving sustainable tourism development.

5. Recommendations and managerial implications
Based on the findings of this study, tourism planners and policymakers should keep in mind the following managerial implications:
Within the framework of a tourism development strategy, tourism authorities must meet the core desires and interests of local residents and involve them into tourism industry and tourism development planning. Relevant authorities such as ministry of tourism in collaboration with tourism higher educational institutions should provide awareness programs for residents in the Alexandrian community about the positive environmental, socio-cultural and economic impacts of tourism.

Since the perceived benefits of tourism motivate locals' pro-tourism behaviour, tourism planners should focus on how to transfer these benefits to residents by employing a variety of marketing methods to gain their support. Furthermore, tourism planners must be attentive of the negative implications of unrestricted tourism development in various regions in the Alexandrian community and design a clear plan to mitigate these consequences.

Likewise, tourism planners ought to draft an obvious plan that identifying the suitable methods to provide benefits to residents in the Alexandrian community. For example: improve their quality of life, develop infrastructures in different regions, solving their problems and provide various job opportunities in order to increase their level of satisfaction and enhance their attitude tourism. Managing residents’ expectations by tourism planners is also needed. This can be done by understanding their attitudes and needs, especially under changing conditions, which in turn will contribute in achieving sustainable tourism development.

Tourism official authorities must listen carefully to what residents had to say concerning tourism activity in their city (Alexandria) and showing respect to their opinions and suggestions. They should be aware that residents are the closer group to the tourism activity and tourists within their community. Finally, managers in travel agencies, under the supervision of ministry of tourism could organize events where both residents and tourists could participate together to improve rapprochement between them.

6. Limitations

This study can be utilized as a springboard for future research in this area of tourism literature. Some limitations of the preceding study should be discussed through future research. The current study has been carried out in Alexandria; much research can examine other local communities in Egypt with different samples to evaluate the factors influencing residents' pro-tourism behaviours. Other mediating variables that influence the relationship between PBoT and RPTB in local communities, such as place image, place attachment, quality of life, destination social responsibility and empowerment should be also addressed by academics. Further studies are required to explore the moderating effect of locals' demographic characteristics such as gender, educational level, age, tourism-related jobs and income. In addition, further research should explore the factors that influence residents' attitudes and satisfaction in local communities. Lastly, this paper has addressed RPTB as a dependent variable, future researches could examine the influence of RPTB on sustainable tourism development.
References


نموذج متعدد الوساطة لأسلاف السلوك المؤيد للسياحة بين السكان المحليين في المجتمع السكندري

ملخص البحث

تركز الدراسة الحالية على السلوك المؤيد للسياحة كموضوع رئيسي في الأدب السياحي. تهتم الدراسة بالتركيز على السكان المحليين في سياق الترويج للمكان وتحقيق التنمية المستدامة. يمكن أن تتحيز الفوائد المدركة من النشاط السياحي للسكان المحليين على الاتجاهات في السلوكيات المؤيدة للسياحة. وفي الوقت نفسه، يمكن أن يتغير تأثير تلك الفوائد المدركة وفقًا لعوامل أخرى، مثل اتجاهات السكان المحليين تجاه السياحة ورضاؤهم عن مجتمعهم (الرضاء عن المكان). ومن هنا، تهدف هذه الدراسة إلى بناء نموذج متعدد الوساطة لفحص أسلاف السلوك المؤيد للسياحة بين السكان المحليين في المجتمع السكندري. تم عمل مسح على عينة عشوائية مكونة من 505 فرد من السكان المحليين في مدينة الإسكندرية. تم التحقق من الفرضيات باستخدام SEM و CFA بواسطة برنامج Amos v.25. توصلت نتائج الدراسة إلى أن الفوائد المدركة من النشاط السياحي لدى السكان المحليين هي مؤشرًا هامًا لسلوكهم المؤيد للسياحة. علاوة على ذلك، تشير النتائج إلى وجود تأثير وساطة إيجابي لكل من موقف السكان تجاه السياحة وراضاه عن مجتمعهم.