

## Using a Fuzzy-set Configuration Approach and Structural Equation Modelling to Explore the Effect of Destination Residents' Motives on Tourism Value Co-creation

Moustafa Mekawy

*Tourism Studies Department, Faculty of Tourism and Hotels, University of Sadat City, Egypt  
& Visiting Fellow, KU Leuven, Belgium & Consultant, Saudi Commission for Tourism and  
National Heritage, Riyadh, KSA, Email, [mustafa.mekawy@fth.usc.edu.eg](mailto:mustafa.mekawy@fth.usc.edu.eg)*

Ahmed Mohamed Elbaz\*

*Tourism Studies Department, Faculty of Tourism and Hotels, University of Sadat City, Egypt  
& University of Technology and Applied Sciences, Salalah College of Applied Sciences,  
Oman, Email, [ahmedelbaz.sal@cas.edu.om](mailto:ahmedelbaz.sal@cas.edu.om)*

*\*Corresponding Author*

**How to cite this article:** Mekawy, M. & Elbaz, A.M. (2020). Using a Fuzzy-set Configuration Approach and Structural Equation Modelling to Explore the Effect of Destination Residents' Motives on Tourism Value Co-creation. African Journal of Hospitality, Tourism and Leisure, 9(5):771-792. DOI: <https://doi.org/10.46222/ajhtl.19770720-51>

### Abstract

This study explored the effect of residents' motives in strengthening the thread that binds tourism value co-creation (TVCC) pursuits and sustainable tourism development practices (STDPs), in the context of nature-based destinations. Drawing on the multi-motives toward environmental protection model and the stakeholder engagement approaches, we developed a combined framework examining the interactions between six residents' motives (namely, altruistic, normative, hedonic, biospheric, and egoistic) plus a 'constraints to motives' construct and their influence on residents' motivational tendencies to participate in TVCC and STDPs. A mixed-method approach—encompassing structural equation modelling and fuzzy-set analysis—was employed to establish the genuineness of the collected data. Using data collected from 587 residents—living in Egypt's Hurghada and Sharm El Sheikh—we show that all of the intrinsic motives of the residents have a positive influence on their tendency to participate in TVCC, except for gain motives. The findings also show a positive influence on STDPs from well-informed resident-centered motivational interactions. Besides, three distinct configurations of motives are likely to result in TVCC. These results provide in-depth knowledge of how scholars and destination business executives may consolidate collaborative residents' engagement frameworks to improve TVCC in the future.

**Keywords:** Motives, residents' engagement, executives, value co-creation, RC-MI approach

### Introduction

In co-creating tourism value, several stakeholders are recruited to pool ideas, set goals, proceed with activities, and create new offerings and procedures for envisaged growth scenarios, which will ultimately help to invigorate tourism experiences (Campos, Mendes, Valle, & Scott, 2015; Maiden, 2008). Existing literature reveals that the extent to which tourism value co-creation

(TVCC)'s stakeholders contribute to the creation of relevant value depends on the benefits they receive or negatives they endure (García-Rosell, Haanpää, & Janhunen, 2019; Strzelecka, Boley, & Woosnam, 2017). The key TVCC stakeholders in a typical business or destination are its tourists, employees, investors, suppliers, government authorities, media, and residents (García-Rosell et al., 2019; Lin, Chen, & Filieri, 2017; Lugosi, 2014; Ciasullo & Carrubbo, 2011). In this context, a destination's residents, in cooperation with business executives and other stakeholders, begin co-creating by exchanging their principles, ideas, and attitudes to create a *value-rich* tourism involvement that best outfits their needs and sustains their environment (Moyo & Tichaawa, 2017; Tichaawa & Mhlanga, 2015; Wang, Wang, & Yang, 2019).

Even though the motives for engaging TVCC's stakeholders have been studied extensively, the residents' *motivational tendency* to participate in TVCC activities—linked to environmental protection initiatives (EPIs)—has been widely underestimated in the existing research (Bianchi, 2009; Tosun, 2006). Using local people's inputs as a tool to achieve valuable and sustainable tourism development is now becoming key to the action plans of destination developers and planners (Mekawy, 2012; Ritchie & Crouch, 2003; Tichaawa, 2017). However, how to measure and interpret the multi-motives theory (Gkargkavouzia, Halkosb, & Matsioria, 2019) of what drives residents to successfully participate in tourism EPIs and TVCC pursuits—thereby supporting destination sustainability practices—is still being investigated by destination researchers and professionals in developing and developed countries (García-Rosell et al., 2019; Wang et al., 2019). To tackle this gap, we used partial least squares structural equation modelling (PLS-SEM) to examine the influence of residents' motives on TVCC and in turn the impact of TVCC on destination sustainability issues. Besides, we employed fuzzy-set qualitative comparative analysis (fsQCA) to explore the complex relations in residents' motives for protecting the natural environment and explore resident-executive value co-creation.

Despite the topic's significance, the combined model, operationalizing residents' motives that consider both drivers for and constraints against participating in TVCC and sustainable EPIs, is not well presented in the national or international literature. In view of that, this review capitalizes on the theory of motives for pro-environmental behaviours (Gkargkavouzia et al., 2019) and other engagement considerations of destination business stakeholders, to better understand the role of motivational resident-centred interventions in TVCC. Accordingly, this study aims at exploring the effects of resident-centered motivational interactions (RC-MIs) in strengthening the thread that binds TVCC pursuits and sustainable tourism development practices (STDPs), in the context of nature-based destinations (NB-Ds). This may offer a leap forward in the complex but crucial task of measuring and understanding the motivational effects of engaging disengaged destination residents in TVCC pursuits (Hosany et al., 2014). This, in turn, may lead to an amalgamated, robust resident engagement policy that considers the varied determinants that influence sustainable tourism decision-making processes, including residents' intrinsic motives, and eventually help promote sustainable behaviour through a combination of formative and informative interventions (Campos et al., 2015; Wang et al., 2019). The paper is organized along these lines: the first section outlines the Egyptian context and highlights the need for residents' engagement and TVCC research in this vital industry for the country. The second discusses destination residents' multi-motives toward environmental protection (MEP) and constraints on participation in TVCC. Then, a novel RC-MIs approach is outlined to establish the study's theoretical framework and hypotheses, succeeded by the research methods and findings. Finally, the findings are discussed, and implications and conclusions reached.

## Literature review and hypothesis formulation

In this section, we intend to explore the extent to which *state-of-the-art* research on destination residents' engagement can help us to recognize some of TVCC's specific, controversial issues that are confronted in the existing research, and to verify the possible role residents' motives and motivational interaction (MIs) play in supporting TVCC pursuits (García-Rosell et al., 2019) in NB-D contexts. Principally, three bodies of research provide the conceptual underpinning for the current study: tourism investigations focused on the MEP of residents' TVCC, the engaging of disengaged NB-D residents (Lehtinen, Aaltonenb, & Rajalaa, 2018) in TVCC pursuits, and resident-to-executive MI contexts. However, the argumentation also embraces relevant thoughts from psychology, management, and community involvement perspectives.

### *Egypt's tourism and nature-based destination contexts*

Tourism is a significant industry supporting Egypt's socio-economic structures. Nearly 9.8 million tourists visited Egypt in 2018, adding around EGP 174.1 billion to the national revenue (OECD, 2020). In its prime, the tourism industry employed about 12% of Egypt's workforce, contributing more than 15% of the country's GDP and 14.4% of the foreign currency in the economy (OECD, 2020). The rapid growth has generated many development policies and practice gaps, particularly in STDPs. Specifically, Egypt's NB-D resources are massively endangered by the rapid tourism boom (Vignal, 2010). Egypt retains many places of matchless natural tourism. The most famous of them are the cities of Sharm El Sheikh and Hurghada, which together receive nearly two-thirds of all tourists to Egypt (Tolba, 2014; Vignal, 2010).

Sharm El Sheikh, which includes the '*Ras Mohammed*' and '*Nabq*' national parks, offers an inimitable and world-class mixture of 'wild' and 'underwater' natural tourism experiences (Tolba, 2014; Vignal, 2010). Hurghada, established as a small fishing village on the Red Sea coast, has recently blossomed into a full-fledged nature beach resort stretching some 40km along the seashore. With its stunning, sandy beaches, turquoise waters, and coral reefs, it has become a distinct NB-D for windsurfing in Egypt (Tolba, 2014; Vignal, 2010). The NB-Ds in Egypt are diverse and provide tourists a very rich recreation and tourism experience; their development policies aspire to set these unique natural areas at the core of sustainability support schemes throughout the country (Mekawy, 2012; OECD, 2020; Tolba, 2014).

Egypt's authorities encourage STDPs through strategies aimed at inspiring the co-creation of new and environmentally friendly productive values connected to nature-based tourism activities (Tolba, 2014). They have also launched various action programs and EPIs, mainly dedicated to helping tourists, businesses, and their executives, with guidelines and technical support in this matter (OECD, 2020). However, destination residents, particularly in Sharm El Sheikh and Hurghada, are often neglected in these policies and practices, as relevant participants in ensuring destination sustainability. Accordingly, this study asserts that developing NB-Ds offers a real chance to enhance their engagement, though sustainability issue planning and TVCC pursuits need to be addressed prudently.

### *Residents' engagement in TVCC and multi-motives toward environmental protection*

#### *Residents' engagement in TVCC*

Previous literature has focused on interpreting the role of residents' engagement in TVCC pursuits, through diverse tourism development frameworks based on different theoretical

underpinnings and conceptual connotations (Campos et al., 2015), particularly in respect of *active engagement* (Lugosi, 2014), *social interaction* (Ihamäki, 2012), *production of tourism experience* (Richards, 2010), *emotional spheres* (Richards & Marques, 2012), *participant vs. spectator* (Breiby et al., 2020), and *co-producers and co-creators* (Lugosi, 2014). Interestingly, these studies underline the greater extent of the *interactive nature* of TVCC in the latest destination development practices (Campos et al., 2015), where destinations' leaders and businesses' executives depend greatly on external contributors (e.g., locals and consumers) in controlling the intricate nature of destination system development contexts (García-Rosell et al., 2019).

Along with internal stakeholders (e.g., employees and executives), who are fundamental to transferring business's visions and decisions into actions (Cova & Salle, 2005), external stakeholders' contribution to TVCC pursuits can be decisive for destinations' business performance and durable operations (Reypens, Lievens, & Blazevic, 2016). Moreover, other authors (e.g., Lugosi, 2014; Uysala, Berbekovaa, & Lina, 2020) suggest that enabling highly engaged external stakeholder participation through destination business executives' communications has become incredibly persuasive in terms of TVCC. This implies that the management of the destination experience has shifted from a co-production to co-creation approach, that is from the concerned engagement of fewer dependent stakeholders (e.g., executives and employees) to the vigorous engagement of several interdependent stakeholders (e.g., passive and active residents) (Lugosi, 2014). So far, however, many questions remain unanswered.

Recently, in response to growing environmental threats to NB-Ds, correlated to locals' passivity, many tourism researchers (e.g., Wang et al., 2019; Campos et al., 2015; Hansla, Gamble, Juliusson, & Gärling, 2008) have discussed the urgent need to establish and validate a coherent tourism stakeholders' engagement framework, supporting sustainable tourism plans through specific self-determined motives and constraints on residents' participation in TVCC activities, at the destination community level. This would attempt to mitigate residents' reluctance to participate in EPIs through the implementation of appropriate engagement interventions to help handle residents' adverse behaviours and impacts on tourism and environmental resources. Theoretical gaps in previous literature imply a significant potential for the study of the role of residents' motives in the pursuit of TVCC and STDPs in NB-Ds (see Figure 1).

### ***Multi-motives toward environmental protection and associated constraints***

Psychologically, a motive is defined as a reason for doing something (Nunnally & Bernstein, 1994). In a sustainable tourism context, an example of a motive is a reason for protecting a natural resource frequently used for tourism production (Campos et al., 2015). This motivational behaviour implies a positive form of interaction. However, in real-life practice, motivation may be positive or negative, depending on the stakeholder's (resident's or business executive's) perspective (Wang et al., 2019). Motives regarding sustainability and environmental protection have generally been investigated in the area of sustainable tourism behaviour (Strzelecka et al., 2017). However, few environmental scales assess destination residents' motivation for engagement (Alonso & Nyanjom, 2016). The existing measures envisage the multi-pronged reality of motives yet depend on different behavioristic psychology principles (Uysala et al., 2020).

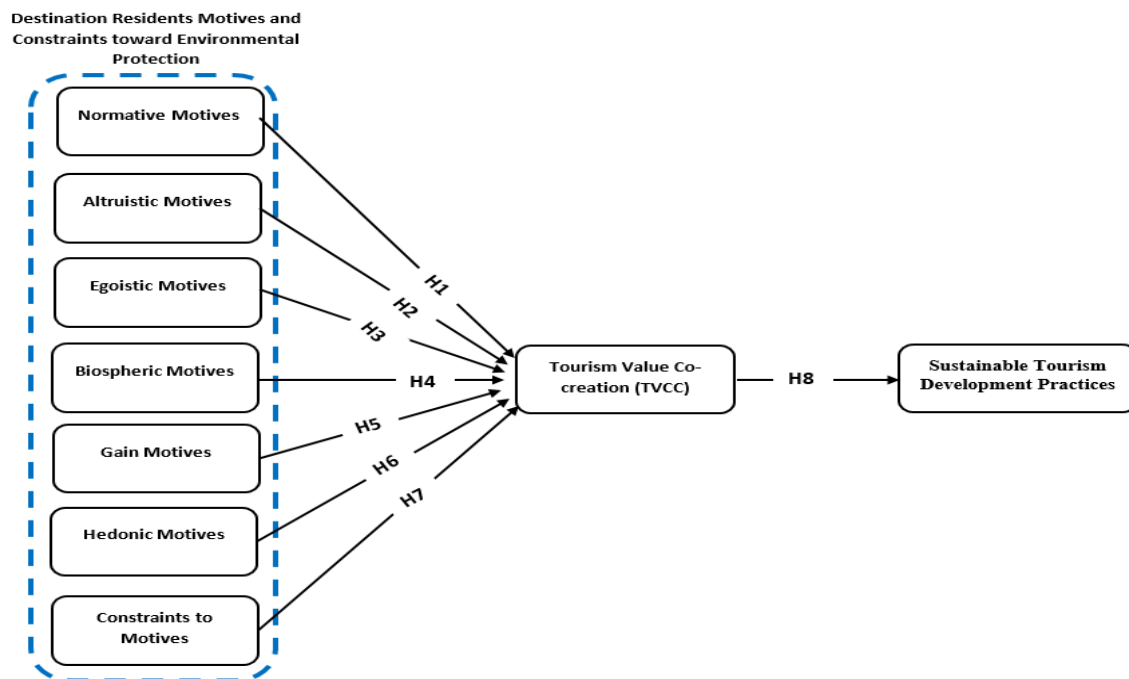


Figure 1. Conceptual framework

Given the few studies on the motivational relationship between resident-business interaction and TVCC, this study considers the effect of MIs on residents' tendency to participate in TVCC activities, constraints on supporting NB-Ds' tourism activities, EPIs, and sustainability. The theoretical background modelling the construct of residents' motives and constraints on environmental protection, in NB-Ds, follows Gkargkavouzia et al.'s (2019) MEP theory, which considers the construct formed from individuals' intrinsic MEP and constraints on these motives. According to it, six intrinsic motives drive individuals to support sustainability and environmental behaviours: normative, hedonic, gain, biospheric, altruistic, and egoistic.

In the pro-environment behaviour and sustainable tourism literature, '*normative motives*' usually refer to individual and common standards that drive people to be nature-friendly (Maiden, 2008). '*Altruistic motives*' has been used by Doran, Hanss, and Larsen (2016) to refer to kind opinions and practices that concentrate on improving the well-being of other people, such as philanthropic values that lead tourism businesses to contribute to local communities. '*Egoistic motives*' is defined by Wang et al. (2019) to indicate self-enrichment reasons and individual in-kind benefits. '*Biospheric motives*' broadly assumes that the environment deserves protection for its own benefit and not only because of the benefits to people (Hansla et al., 2008). The term '*gain motives*' is frequently interpreted to mean the motivation or passion to act in an eco-friendly way, with an eye on making financial profits (Gkargkavouzia et al., 2019). For instance, in the sustainable tourism context, Sharm El Sheikh's residents used to perform regular beach clean-up campaigns to maintain beach tourism businesses (Tolba, 2014).

Gkargkavouzia et al. (2019) proposed a new definition of '*hedonic motives*', in which they assumed that human pro-environment behaviour was driven by the individual seeking gratification, enjoyment, and feelings of delight from the environment at a precise moment. Notably, in their theory, the MEP instrument includes a '*constraints to motives*' factor that is

effective in understanding people's 'eco-unfriendly' or 'eco-neutral' behaviours. This factor determines the restraining elements (e.g. personal and/or institutional barriers) that may hinder eco-friendly actions. Kollmuss and Agyeman (2010) assumed that the self-centred person (egoistically motivated) could hardly be acting ecologically. They also pointed out that a lack of institutional factors (e.g. recycling services) might prevent people from acting in an eco-friendly way.

A different set of research, mostly conducted by tourismologists as opposed to sociologists and psychologists, has attempted to discuss these 'constraints to motives' factors. This investigative work stresses the importance of local people's values (Stone, 2015). It considers that, in a sustainable tourism development context, there is usually not only an economic dimension (e.g. destination business earnings) but also a mutual benefit dimension (e.g. value-based activities that achieve business, society, and environmental interests) to the originally named 'stakeholders with heterogeneous motives' (Ciasullo & Carrubbo, 2011). Such links, from a motivational perspective, which strengthen the TVCC pursuits, are distinguished by co-engagement in defining expectations and showing a willingness to use destination resources, of which both parties (i.e., residents and businesses) avail themselves. For instance, residents protect nature tourism resources and destination businesses allocate a proportion of jobs to the locals.

A recent study by Wang et al. (2019) concluded that understanding diverse perspectives, motives, and needs of salient stakeholders (i.e., original residents), and how they are affected by tourism development, is critical to engaging them in TVCC pursuits and STDPs. There is, however, a noticeably lesser consensus on how destination residents' engagement should be encouraged and approached (Lin et al., 2017). More tourism research is required to examine correlations between destination residents' intrinsic motives and pro-environmental behavior constraints, sustainable destination system support, and endorsement (Wang, et al., 2019). Accordingly, the next section reviews a broader *resident-centered MIs perspective* to explore the key environmental and related psychological motivational aspects of residents' engagement process and their proposed benefits to the overall TVCC pursuits.

### ***Resident-centered motivational interactions (RC-MIs) approach***

To handle the above-discussed problematic TVCC context, this study has originated a novel motives-based resident engagement approach called the *RC-MIs approach*, which addresses key misconduct and lacunas in the achievement of resident-to-executive MIs that support TVCC pursuits and STDPs (Rasoolimanesh & Jaafar, 2017). This approach provides destination professionals with a system, expertise, and tools to more adequately communicate with residents when engaging in TVCC pursuits, in particular when managing possibly challenging environmental tourism development situations (see, e.g., Lehtinen et al., 2018). The RC-MIs approach, therefore, is proposed as an evidence-based practice that handles environmental motivational issues associated with obtaining and sustaining a better socio-economic and natural lifestyle for destination residents while creating new values for maintaining eco-tourism practices (Alonso & Nyanjom, 2016). As such, we argue that a successful external stakeholder engagement strategy, aimed at synergistically fostering residents' role in EPIs, TVCC, and STDPs, is required.

This strategy requires a 'vigilant listening' intervention to acknowledge reluctant residents' environmental and economic outlooks—without being preoccupied with the destination executives' thoughts—which is crucial to recognizing the 'silent/spectator' residents as 'salient' stakeholders who merit executives' attention (Lehtinen et al., 2018). A sound communication base, therefore, is required to improve prevailing thoughts about the fundamental characteristics of resident-executive MI contexts (Uysala et al., 2020). However,

residents' reluctance and resistance present a challenge for many destination leaders and business executives, in Egypt and beyond (Eraqi, 2011; Tosun, 2006).

Consciously, residents, as humans, are social beings who are *normatively* and *hedonically* trying to engage emotionally and beneficially with their surroundings (Gkargkavouzia et al., 2019; Hosany et al., 2014). From a collaborative interactive perspective, recent reviews (e.g., Wang et al., 2019; Campos et al., 2015) emphasize that the engagement interaction is mutually inclusive, an interdependent connection between the destination businesses' executives and their prominent stakeholders (i.e., destination residents) to enhance the overall quality of TVCC pursuits. In theory, scientists have always seen *normative* and *hedonic* motives as relevant to the resident's tendency to follow a sustainable way of life because s/he feel ethically compelled to conserve the natural surroundings in which s/he lives (Gkargkavouzia et al., 2019; Strzelecka et al., 2017).

In reality, however, residents want to know that businesses and their executives sincerely aim to address their economic requirements, in order to be gainfully oriented to take part in relevant TVCC processes (Gkargkavouzia et al., 2019). Therefore, businesses and their executives need to devote time to mindfully listening to and acknowledging the destination residents as value co-creators and supportive stakeholders (Lugosi, 2014). Following this line of thought, the RC-MI approach is proposed as including the context-specific destination businesses activities and strategies that consider residents' intrinsic motives and their traced triple bottom line of economic, social, and environmental intents (see, e.g., Gkargkavouzia et al., 2019; Wang et al., 2019; Alonso & Nyanjom, 2016).

However, the main difficulty with RC-MIs is the challenge of measuring the eventual social and environmental results (Hosany et al., 2014). Lucrativeness is essentially quantitative, making it not difficult to measure. Social and environmental motives, however, are composed of intuitive aspects. Thus, the study's logical argument is that to develop such a *multi-motives-based* engagement approach, a robust MEP-MI framework must be established, with a collaborative rapport that aims to strengthen confidence amid the business-external stakeholder's value co-creation system (e.g. executive-resident interaction TVCC system), to eventually sway the attainment of anticipated TVCC and sustainability outcomes (Lin et al., 2017; Wang et al., 2019). Based on this discussion, we hypothesize:

- H1:** The normatively oriented RC-MI approach positively impacts on TVCC pursuits.
- H2:** The altruistically oriented RC-MI approach positively impacts on TVCC pursuits.
- H3:** The egoistically oriented RC-MI approach positively impacts on TVCC pursuits.
- H4:** The biospherically oriented RC-MI approach positively impacts on TVCC pursuits.
- H5:** The gainfully oriented RC-MI approach positively impacts on TVCC pursuits.
- H6:** The hedonically oriented RC-MI approach positively impacts on TVCC pursuits.

However, as noted earlier, not every destination resident will actively engage in TVCC. Some residents might be self-effacing and therefore reluctant to engage; others may not want to participate for other emotional and motivational reasons (Stone, 2015). In this vein, previous research has pointed out that pollution, increased cost of living, lack of empowerment, mistrust and harmony between tourism businesses and external stakeholders, gender bias in TVCC engagement, and misrepresentation of the community's interests can likewise induce a destination resident to develop passive-offensive behaviours (see Gkargkavouzia et al., 2019; Stone, 2015; Maiden, 2008). Neglect and low ego are also thought to cause this behaviour pattern (García-Rosell et al., 2019; Stone, 2015). Tosun's (2006) seminal work, on the *expected nature of community participation in tourism development*, depicts that government

bureaucracy and the excessive power of tourism organizations are significant obstacles to local community participation.

This illustration implies that better recognition of the behavioural constraints that destination residents confront will help destination leaders and executives to more effectively target residents' engagement in policy interventions that aim to change their pro-environmental and pro-social behaviours toward sustainable tourism development (Lin et al., 2017). However, few researchers have addressed the issue of behavioural constraints that affect resident-executive interactions and TVCC engagement. According to Median (2008), the development of a behavioural environment toward sustainable tourism initiatives contributes towards knowledge of the behavioural constraints confronted by destination residents who are battered by explicit TVCC policies. Moreover, we argue that the behavioural environment not only better explains failures but, if applied to TVCC policies, could also contribute to more productive destination development. Thus, we hypothesize the following:

**H7:** A resident's behavioural constraints have a negative impact on TVCC pursuits.

Business executives could moderate residents' behaviours by addressing their intrinsic motives (particularly, normative, hedonic, gain, and biospheric) toward the environment and its tourism-producing performance, in an emotional way, to eventually help create a successful TVCC context. As a result, the destination resident grasps possible positive effects of MIs through experiencing eco-friendly lifestyle behaviours (see Alonso & Nyanjom, 2016), which lead to economic benefits and adherence to STDPs. To reach these outcomes, destination businesses should work closely with their resident-executive engagement framework and MI system, and help destination residents to recognize the indispensable significance of the change from being a silent or spectator player to a salient or active one. Based on this discussion, the following hypothesis was formulated:

**H8:** Resident-focused TVCC pursuits have a positive impact on STDPs.

### ***The intricate contingency lens of the motives-based interaction approach***

The features of multi-motive-based interactions between destination residents and businesses' executives are also misinterpreted in tourism research and practice. For instance, in tourism research (e.g., Doran, et al., 2016; Stone, 2015), it is common for NB-Ds' developers to employ 'biospheric motives' as a way to raise residents' motivation and engagement in EPIs, TVCC, and STDPs. In practice, however, professionals still wonder if this premise that 'biospheric motives' are an adequate way to increase residents' motivation and engagement has empirical backing (Doran et al., 2016).

Considerable empirical research has targeted the influences of 'biospheric motives' on residents' engagement, but these investigations have been conducted willingly in isolation of other residents' intrinsic motives, and no multi-motive empirical view has been suggested (Doran et al., 2016). Therefore, we argue that the influence of a single motive, such as a biospheric one, may be necessary but insufficient for predicting TVCC. To tackle this problem, we adopted fsQCA to explore the complex relations in residents' motives for protecting the natural environment and explore resident-executive value co-creation.



## Material and methods

### Design

To address the research questions, we conducted an empirical study. The research strategy was associative and carried out through a mixed-method approach in which the research aims could be recognized. The strategy aimed at helping to explore the causal associations among the nine constructs under investigation. The study was exploratory, suggesting we planned to examine a theoretical model of the associations among the investigated constructs (namely, the six intrinsic motives, constraints to motives, TVCC, and STDPs). This type of research was considered appropriate because the study topic and variables had not been examined clearly before, particularly in Egypt. A paper-based questionnaire was used to collect primary data. Finally, PLS-SEM allowed us to analyze the causal relationships among variables in a concurrent manner. fsQCA, which aims to combine the benefits of both qualitative and quantitative analyses, was used to identify which combinations of resident motives will drive tourism value co-creation.

### Study sites

The suggested model and eight hypotheses were examined using WarpPLS 7.0 (Kock, 2020), with questionnaires data collected from residents of Hurghada and Sharm El Sheikh, Egypt. The two cities have a population of 107,622 residents, 95,622 in Hurghada (World Population Review, 2020), and are located along the Red Sea coast in Eastern Egypt (Figure 2). The two destinations were chosen because of their potential for eco-friendly tourism activities with relatively insignificant participation of residents in EPIs and tourism development practices. The core tourism attributes of the two destinations are primarily natural resources (Tolba, 2014). These resources include direct access to the Red Sea's coral reef ecosystem, pristine sandy beaches, desert sand dunes, and natural fauna and flora reserves in both the Red Sea Governorate's Hurghada and South Sinai Governorate's Sharm El Sheikh.



Figure 2. Map of Egypt showing the locations of the Hurghada and Sharm El Sheikh NB-Ds

All of these features make them typical NB-Ds, where locals' engagement in EPIs linked to tourism development is still minimal (Tolba, 2014; Vignal, 2010). Most of the residents of the Red Sea Governorate live in Hurghada due to the growing opportunities for earning a living related to tourism. Likewise, residents of the South Sinai Governorate mostly live in Sharm El Sheikh to gain from tourism projects (OECD, 2020). While the assumption of economic benefits (i.e., gain motives) of tourism stimulates many NB-D residents to participate in tourism business activities, many separate relevant eco-social causes (e.g. biospheric and hedonic motives) inspire residents to engage in EPIs related to tourism development practices in Hurghada and Sharm El Sheikh (OECD, 2020; Tolba, 2014).

Table 1 shows an increase in educational level among the residents of the selected NB-Ds, and an increase in the number of older residents, who are described by previous research as wise and friendly toward the environment, and loyal towards and supportive of sustainability issues, with a minimal engagement in the tourism industry (Tolba, 2014; Vignal, 2010). There has also been an improvement in NB-D residents' interest in national tourism development plans, and an upscaling of the promotion of Bedouins' (authentic residents') lifestyles among incoming tourists (OECD, 2020). These factors consolidate to make Hurghada and Sharm El Sheikh appropriate sites in which to study the influence of MIs on residents' engagement in TVCC and STDPs.

### ***Sampling, procedures, and questionnaire***

The study population comprised all local citizens and residents of Hurghada and Sharm El Sheikh, Egypt. The sample composed those residents aged 25 or above, who had lived in these cities for at least one year and benefited from the tourism industry directly or indirectly. These cities are also known as NB-Ds. These NB-Ds provide eco-friendly tourism activities, services, and experiences to their visitors and residents. Protecting the environment and sustainability support are the fundamental tenets of NB-D practices. With the assistance of four researchers, we applied convenience sampling using paper-based questionnaires distributed to a sample of Hurghada and Sharm El Sheikh residents, between December 2019 and January 2020. Notwithstanding generalizability concerns with the convenience sampling approach, Ahl (2006) and Coviello and Jones (2004) corroborate the value of non-probability sampling in collecting robust data when high respondent levels are achieved.

598 questionnaires were returned, of which 11 were invalid and unusable. The first 50 forms gathered were employed as a pilot study. Based on Saunders et al. (2009), the main objective of the pilot study was to identify respondents' understanding of the questionnaire phrases for further improvement. In this vein, the 50 pilot forms were coded and inputted into SPSS (version 25) to test the internal consistency of the instrument. Cronbach's alpha ( $\alpha$ ) and corrected item-total correlation were used to test the instrument's reliability. Reliability analysis was also conducted on the nine main latent variables and resulted in scores larger than the 0.7 threshold (MacKenzie, Podsakoff, & Podsakoff, 2011). Besides, the corrected item-total correlation criteria were sufficient, showing that no item was redundant, and thus no item was deleted.

### ***Data analysis***

Following the research design, WarpPLS version 7.0 was used to implement PLS-SEM with the data (Kock, 2020). PLS-SEM has been widely applied in tourism studies (e.g. Elbaz et al., 2020; Elbaz et al., 2019). A regression-based approach, it is mainly suitable for studies developing new theory (Hair et al., 2016). We also adopted fsQCA as a configuration approach to capture the complex relations involved in residents' motives for protecting the natural environment. Beynon, Jones, and Pickernell (2016) described fsQCA as a set-theoretic



approach for exploring numerous potential formations correlated with a certain result. Hence, employing it in this paper is appropriate for capturing the potential composite influence of different motives on the TVCC and STDPs. Overall, it is fitting due to the complex behaviors inherent in the destination residents' MEP in Egypt.

### Participants

Based on the collected and analyzed data, Table 1 summarizes the participants' demography. 56.6% were male. 36.6% were older than 45 years, 34.6% between 36 and 45 years old, and 27.8% between 25 and 35, with the remaining 1% less than 25 years. Regarding education, 69% and 17.8% of the participants had achieved the undergraduate and postgraduate level respectively. This indicates an increase in residents' education level in both cities. Finally, 44.8% were married and 30.2% single.

Almost all of the participants were living in Hurghada (52.3%) or Sharm El Sheik (41.9%). The remaining 5.8% were living in other cities, particularly, Qena and Sohag. However, they held permanent positions in Hurghada or Sharm El Sheikh, and their full-time contracts allowed them to stay longer in the two cities. Approximately 39% were totally engaged in the tourism industry—for example, having a job in a safari tour/hotel/diving center or possessing/operating a tourism-related retail business. Also, the majority ( $n = 454$ ; 77.3%) had lived in an NB-D (i.e., Hurghada/Sharm El Sheikh) for 11 or more years.

**Table 1. Sociodemographic characteristics of participants ( $n=587$ )**

Variables	Residents' characteristics	N	(%)
<b>Gender</b>	Male	332	56.6
	Female	255	43.4
<b>Age</b>	Less than 25	6	1.00
	25-35	163	27.8
	36-45	203	34.6
	More than 45	215	36.6
<b>Educational level</b>	Sec./ high school	7	1.20
	Undergraduate	405	69.0
	Postgraduate	105	17.8
<b>Social status</b>	Others	70	12.0
	Single	177	30.2
	Married	263	44.8
	Widow	145	24.7
<b>Participants' city of resident</b>	Others	2	0.30
	Hurghada	307	52.3
	Sharm El Sheikh	246	41.9
<b>Engagement in EPIs/ sustainable tourism development practice</b>	Other cities	34	5.80
	Fully/partially reliant on tourism incomes (e.g., safari, diving, accommodation, tourism business retail, etc.)	230	39.2
<b>No. of years Living in a nature-based destination (Hurghada/Sharm El Sheikh)</b>	Not reliant on tourism incomes	357	60.8
	< 1 year	7	1.20
	1–5 years	36	6.10
	6–10 years	90	15.4
	11–15 years	189	32.2
	15+ years	265	45.1

## Measures

Nine constructs were adopted: the six forms of residents' MEP, namely normative, altruistic, egoistic, biospheric, gain, and hedonic, plus constraints to motives, TVCC, and STDPS. Multiple phrases were adopted to represent each construct and a five-point Likert scale of 1 (strongly disagree) to 5 (strongly agree) was used for each phrase. The questionnaire had two parts. The first part captured participants' MEP, the second part their personal information, with four questions on gender, age, educational level, and marital status. To confirm the research content validity of the nine constructs used, the indicators were solicited from previous studies. To be precise, items for the six residents' MEP and constraints to motives were developed by Gkargkavouzia et al. (2019). TVCC was captured using Lin et al.'s (2017) three-item scale. Regarding STDPS, five items were adopted from Rasoolimanesh and Jaafar (2017).

## Analysis and results

### Measurement model

To ensure the research measurement model appropriateness, the primary analytical step was to test the reliability and validity of all the instruments adopted. The structural equation approach was employed using WarpPLS 7.0 (Kock, 2020). Table 2 provides values for composite reliability (CR), Cronbach's alpha ( $\alpha$ ) and average variance extracted (AVE). All instruments are reliable and valid from a measurement perspective, mostly scoring above 0.7, with two variables (namely, *normative motives* and *constraints to motives*) slightly below. Furthermore, the instruments' convergent and discriminant validity were assessed through the items' loadings (see Appendix A). For convergent validity, Table 2 indicates that all the instruments' AVEs are above the threshold of 0.50. To assess the collinearity problem, the variance inflation factors (VIFs) were estimated for all instruments. All are lower than 5 suggesting no collinearity problems in the measurement model (MacKenzie et al., 2011).

**Table 2: Constructs' reliability and validity**

Instrument	CR	Cronbach's $\alpha$	AVE	VIF
Normative Motives	0.817	0.663	0.598	1.617
Altruistic Motives	0.855	0.773	0.595	1.689
Egoistic Motives	0.872	0.804	0.631	1.884
Biospheric Motives	0.886	0.827	0.661	1.543
Gain Motives	0.843	0.720	0.642	1.763
Hedonic Motives	0.846	0.726	0.647	1.823
Constraints to Motives	0.805	0.676	0.510	2.125
TVCC	0.845	0.725	0.646	2.025
STDPS	0.919	0.889	0.694	1.703

Note: CR=composite reliability;  $\alpha$ =Cronbach's alpha; AVE=average variance extracted; VIF=variance inflation factor

In addition, the square roots of the AVEs were used to test discriminant validity (see Table 3). All instruments' correlations are less than the AVEs of their respective instrument. The heterotrait-monotrait (HTMT) rate of associations was also employed to assess the instruments' discriminant validity (Henseler, 2018). According to Kock (2020), if the HTMT value is lower than 0.90, as is the case for all instruments in this study, the discriminant validity is good. Hence, all of these test results signify appropriate discriminant validity.

**Table 3: Squared roots of AVE and HTMT**

AVEs										
Instrument	1	2	3	4	5	6	7	8	9	
1. Normative Motives	(0.773)									

2. Altruistic Motives	0.420	(0.772)								
3. Egoistic Motives	0.486	0.458	(0.794)							
4. Biospheric Motives	0.413	0.397	0.374	(0.813)						
5. Gain Motives	0.499	0.420	0.516	0.421	(0.801)					
6. Hedonic Motives	0.440	0.406	0.548	0.386	0.446	(0.804)				
7. Constraints to Motives	0.465	0.510	0.537	0.482	0.517	0.529	(0.714)			
8. TVCC	0.397	0.565	0.494	0.405	0.507	0.491	0.615	(0.804)		
9. STDPs	0.415	0.410	0.478	0.478	0.438	0.528	0.454	0.426	(0.833)	
<b>HTMT</b>										
<b>Instrument</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	
1. Normative Motives										
2. Altruistic Motives	0.590									
3. Egoistic Motives	0.666	0.583								
4. Biospheric Motives	0.557	0.496	0.463							
5. Gain Motives	0.724	0.565	0.681	0.548						
6. Hedonic Motives	0.632	0.545	0.717	0.498	0.622					
7. Constraints to Motives	0.717	0.713	0.739	0.657	0.752	0.761				
8. TVCC	0.574	0.757	0.647	0.521	0.710	0.677	0.878			
9. STDPs	0.540	0.495	0.565	0.558	0.550	0.656	0.592	0.531		

Note: AVEs= square roots of AVE; HTMT = the heterotrait-monotrait ratio

#### Destination Residents Motives and Constraints

##### Toward Environmental Protection

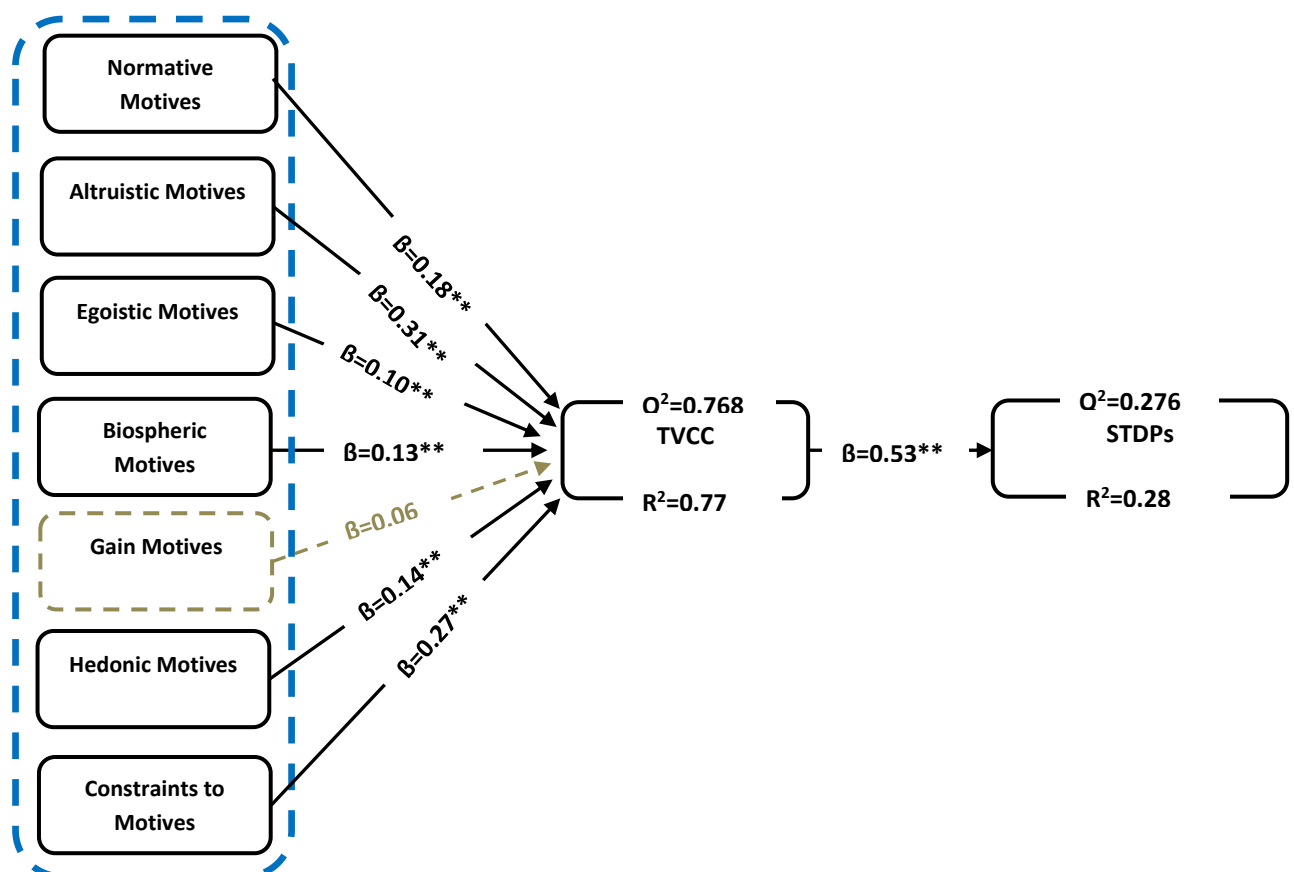


Figure 3. Empirically validated model of residents' multi-motives effect on TVCC pursuits and STDPs

#### Structural model and hypothesis testing

Figure 3 presents the results of the multivariate analysis. The structural model demonstrates the associations between the instruments. The results show that **altruistic motives** have the



strongest positive effect among the destination residents' motives toward environmental protection ( $\beta=0.31, p <0.001$ ), followed by **normative motives** ( $\beta=0.18, p <0.001$ ), **hedonic motives** ( $\beta=0.14, p <0.001$ ), **biospheric motives** ( $\beta=0.13, p <0.001$ ), and **egoistic motives** ( $\beta=0.10, p <0.001$ ), all with significant effects on TVCC. Hence, H1, H2, H3, H4, and H6 are supported. However, **gain motives** were found to have no effect on TVCC. Thus, H5 is rejected.

On the other hand, **constraints to motives** ( $\beta= -0.27$ ) has a negative and significant effect on TVCC. Thus, H7 is also accepted. **TVCC** strongly enhances **STDPs** ( $\beta= 0.53$ ). Therefore, we accept H8. Ultimately, it can be determined that destination residents' motives toward environmental protection in terms of normative, altruistic, hedonic, biospheric, and egoistic motives, explain 77% of TVCC, whereas TVCC explains 28% of STDPs. Instrument coefficients were calculated to gauge the predictive power of the structural model. This created cross-validated redundancy (Q-squared) values for dependent instruments above zero (TVCC: 0.768; STDPs: 0.276), offering support for the model's predictive power.

### ***Configurational analysis (fsQCA)***

fsQCA provides a more holistic view of the destination residents' motives toward environmental protection and their effect on the STDPs (Tóth et al., 2015). Developed by Ragin (2000), fsQCA is a particular theoretical approach to causal analysis based mostly on the supposition that results are often caused by the gestalt of a combination of variables, rather than any single cause for several variables, not for a single predictor. This indicates that the combinations are replaceable because they may be sufficient but not necessary to reach the desired result (Ragin, 2008). This tool has been used in recent tourism and hospitality studies including Elbaz et al. (2019) and Fotiadis, Yeh, and Huan (2016). The software adopted in the current research was fsQCA.3.1b (Ragin & Davey, 2016).

### ***Calibration***

The first step in fsQCA is 'calibration', where Likert metrics are converted to fuzzy degrees. In fsQCA, as Ragin (2009) showed, both the causal conditions (MEP) and the outcome (TVCC) are calibrated using fuzzy set scores. In view of that, three qualitative thresholds signifying fuzzy-set scores are represented through the identification of three equivalent thresholds in the data (Ragin, 2008). Ragin (2009) indicated that the calibration procedure involves determining three values equivalent to three specific anchor points that represent the thresholds, for an obscure group, for complete membership (1), cross point (0.5), and non-complete membership (0).

### ***Necessity analysis for TVCC***

Based on Kent (2015), necessity analysis allows researchers to identify the conditions (normative, altruistic, hedonic, biospheric, and egoistic motives) that are necessary but not sufficient for the sought outcome (TVCC in this study). In this vein, for a condition to be necessary, a minimum consistency score of 0.9 and a coverage exceeding 0.75 must be achieved (Legewie, 2013). Therefore, as indicated in Table 4, none of the destination residents' MEP are necessarily independent conditions for TVCC.

**Table 4: Necessary conditions for high motivational tendency to participate in TVCC**

	<b>Consistency</b>	<b>Coverage</b>
Normative Motives	0.796824	0.636703
~Normative Motives	0.721570	0.542167
Altruistic Motives	0.770821	0.612401



~Altruistic Motives	0.811700	0.634555
Egoistic Motives	0.820084	0.654701
~Egoistic Motives	0.709412	0.586211
Biospheric Motives	0.731420	0.645180
~Biospheric Motives	0.800039	0.611337
Gain Motives	0.688076	0.678891
~Gain Motives	0.657226	0.523672
Hedonic Motives	0.696824	0.667703
~Hedonic Motives	0.621570	0.555167

Notes: necessity consistency threshold = 0.9, coverage threshold = 0.9.

### Sufficiency analysis for high TVCC

Combinations leading to TVCC are explored in this study. Therefore, to determine the relevant combinations, it is necessary to consider the frequency and consistency thresholds. The frequency threshold reflects the minimum number of cases (the local citizens and residents who participated in this study) that a combination requires in order to be worth investigating. In this study, this is set at one local citizen or resident, as suitable for small samples (Kraus, Ribeiro-Soriano, & Schüssler, 2017).

Consistency is defined according to Ragin (2008:44) as "*the degree to which the cases sharing a given combination of conditions agree in displaying the outcome in question*". In this regard, Ragin (2008) explains that consistency scores of at least 0.75 are suggested, and studies may achieve values 0.80 and 0.90 for higher consistency. Ragin (2008) recommended the use of a cut-off value of 0.90. Besides, to measure the empirical relevance of each combination, coverage values need to be checked (Ordanini, Parasuraman, & Rubera, 2014). Based on Ragin (2008:44), coverage refers to "*the degree to which a cause or causal combination 'accounts for' instances of an outcome*" and can be raw or unique. Beynon et al. (2016) clarify that raw coverage indicates the percentage overlapping with other combinations, while unique coverage shows the percentage exclusive to a combination. Regarding the overall solution coverage, it can also be assumed to describe the extent to which outcomes can be identified by a set of configurations (similar to the R-square value in multivariate analysis) (Woodside, 2014).

The fsQCA's final step is assessment and interpretation of results. Table 5 compiles the fsQCA's results for the effect of residents' motives on TVCC, employing a modified version of Ragin (2009)'s entry. Table 5 presents the combinations leading to a high motivational tendency to participate in TVCC pursuits. For clarity, it offers a simple graphic representation, where black circles demonstrate the existence of a condition and white circles illustrate its absence. Also, larger circles show core conditions (presence or absence), while smaller circles symbolize peripheral conditions. Lastly, triangles allude to secondary conditions, which may be existent or nonexistent and thus play an insignificant role in TVCC, in a specific solution or combination.

**Table 5: Combinations leading to TVCC**

Solutions	NOR	ALR	EGO	BIO	GAN	HED	Raw Coverage	Unique Coverage	Consistency
(A)	●	●	△	△	●	●	0.484371	0.0863452	0.873019
(B)	●	●	○	●	△	△	0.377923	0.0582872	0.906019



(C)	●	Δ	○	●	●	Δ	0.323774	0.0246282	0.929036
<b>Solution Coverage</b>							0.57617		
<b>Solution Consistency</b>							0.831666		

Notes: ● = presence of a core condition; ● = presence of a peripheral condition; ○ = absence of a core condition; Δ = subordinate condition.  
 Frequency Cutoff: 1; Consistency Cutoff: 0.925009.  
 NOR = Normative Motives; ALR = Altruistic Motives; EGO = Egoistic Motives; BIO = Biospheric Motives; GAN = Gain Motives; HED = Hedonic Motives.

As shown in Table 5, three configurations are expected to lead to TVCC. For the first configuration, solution (A) includes the combination of normative, altruistic, gain, and hedonic motives, with all four motives being core. The second (B) and third (C) solutions have normative and biospheric motives in common, yet the second configuration (B) involves altruistic and low egoistic, the third gain and low egoistic, with normative and biospheric being core. Hence, it seems that, if egoistic motives are present, TVCC will be established if the negative effect of the egoistic motives is offset, with normative and either altruistic or hedonic motives. Besides, it is evident from the first solution (A) that, when egoistic, local people and residents need to also be either altruistic, gainful, or hedonic but not all of these.

## Discussion

Utilizing a PLS-SEM approach, the study attempts to know the key mixtures of individuals' motives suitable for enhancing the residents' tendency to participate in TVCC pursuits in NB-Ds. The research also examines the influence of MIs on residents' engagement in STDPs. The following sub-sections discuss the results more thoroughly.

### *Residents' engagement in TVCC*

With residents' engagement in TVCC being a core element of the sustainable tourism development literature (Alonso & Nyanjom, 2016; Strzelecka et al., 2017; Uysala et al., 2020; Wang et al., 2019) and the rising concern in residents' motives among tourism academics (e.g., Campos et al., 2015; Doran, et al., 2016; García-Rosell et al., 2019; Maiden, 2008; Uysala et al., 2020; Wang et al., 2019), unexpectedly few studies have been geared towards looking at the association among these four key paradigms. Considering this gap, this research investigated the effect of Gkargkavouzia et al.'s (2019) six motives of an individual's pro-environmental behaviors on residents' tendency to participate in TVCC pursuits and STDPs, in NB-Ds.

However, unlike Gkargkavouzia et al.'s (2019) MEP approach that utilizes a socio-psychological viewpoint to promote individuals' pro-environmental behaviors, in this study we utilized the RC-MI approach that targets residents' intrinsic motivations for positively changing their tendency to participate in TVCC activities by valuing the environment, in which they live, in socio-economic terms. Accordingly, it could be concluded that the RC-MI notion may guide the destinations' businesses in efficiently engaging with their external stakeholders (i.e., original residents) to reveal and reinforce their intrinsic spur for change in environmental protection behaviors and for action toward TVCC pursuits (García-Rosell et al., 2019). Moreover, this approach could help destination businesses and professionals, in Egypt's NB-Ds, to promote STDPs (Eraqi, 2011). This conclusion is in line with the findings of Campos et al. (2015), who pointed out that motivational engagement contributes to the promotion of value co-creation among destination stakeholders, including locals.



### ***TVCC and residents' motives***

Value co-creation is an intricate notion and requires various factors for its successful inclusion in destination businesses' practices. What is known about value co-creation, in tourism studies, is largely based on tourist-business interaction (Campos et al., 2015). Moreover, earlier studies have uncovered that EPIs, MEP, and MIs are directly related to STDPs (Wang et al., 2019). Notably, previous research has attempted to grasp some of these singular factors in the destination development field of study, and has gone deeper by recognizing the key role of some factors such as stakeholders' multi-motives for, drivers for, and constraints on participating in TVCC, and the psychometric properties of STDPs (Nunnally & Bernstein, 1994). However, there has been no holistic investigation that has combined these factors into a unified model, such as the one depicted in Figure 3 of this paper, for gauging the significance of each factor to the full picture. Remarkably, the current study delivers empirical evidence of these links.

Our knowledge of resident-focused TVCC pursuits is founded on very limited information. To bridge this gap, this paper has investigated how well-informed RC-MIs can be used to endorse residents' involvement in TVCC pursuits and STDPs in NB-Ds. We investigated this issue in Egypt's NB-Ds (namely Hurgada and Sharm El Sheikh) and this study adds to the sustainable tourism, destination development, and value co-creation literature by (1) underlining the connections between different motives, residents' tendencies, and TVCC, and (2) revealing the role of the new approach of RC-MIs by using Alonso and Nyanjom's (2016) residents' engagement theory. Also, the findings provide imperative inferences for NB-Ds' businesses and leaders in Egypt and beyond on the tie that binds residents' various motives and their tendency to participate in TVCC, and the role of MIs in that linkage. This conclusion conforms with the findings of Alonso and Nyanjom (2016), who concluded that to improve residents' quality of life, destination businesses and leaders should keep capitalizing on economic openings while maintaining STDPs.

### ***Constraints to motives, TVCC, and STDPs***

Understanding residents' motives is not a panacea for all issues preventing their participation in TVCC and STDPs, even though it has certain striking features. It must be considered as one of multiple openings that NB-Ds' leaders might address to improve TVCC pursuits and sustainability outcomes (Campos et al., 2015; Eraqi, 2010). This study accordingly concludes that residents' motives, while necessary, are not the only major concern for TVCC and the sustainable development of NB-Ds. As highlighted in this study, beyond its valuable impact, engaging residents in TVCC pursuits must include additional aspects of the internal and external constraints to residents' engagement in EPIs and resident-executive engagement interaction in TVCC, to assure sustainability. This result is in accordance with those found by Wang et al. (2019), who stated that people were commonly motivated to support the environment but could be constrained in doing so if related support were inadequate in specific circumstances.

Moreover, one decisive issue, related to the constraints to motives factor, to be discussed is the adverse *gender inequality* impact that residents' engagement pursuits may have on TVCC and STDPs' outcomes. In societies like Egypt, where local females play a 'more secondary' role in the destination development sphere (Mekawy, 2012), engaging fundamentally with local males would produce only part of the story. In turn, this partial information could lead to both perils and missed opportunities in terms of TVCC and STDP endings. Thus, we conclude that, by employing the recognition and appreciation thresholds (Stone, 2015), the RC-MI approach could help destination executives to achieve more gender-balanced engagement interactions, using a combination of motivational interventions. This

conclusion is consistent with those of Campos et al. (2015) and Maiden (2008), who pointed out that recognition, for example of residents' constraints (i.e., gender inequality as a personal barrier to participation in TVCC pursuits), is highly required to mitigate such constraints' negative impacts on TVCC and STDPs.

### ***TVCC and STDPs***

TVCC drives sustainability support and promotion within a destination and between nature-based tourism businesses (Wang et al., 2019), and has an influence on residents' quality of life (Alonso and Nyanjom, 2016). Therefore, implementing a resident-focused TVCC approach supports moderate some sustainability anxieties that do not cope with residents' interests. Hence, in line with this study's results, we conclude that implementing a better resident-to-business-executive MI system in NB-Ds will contribute to the development of sustainable tourism development outcomes by recognizing the academic viewpoint. This conclusion is in line with those of Doran et al. (2016), regarding how individual opinions about sustainability may not always be consistent with development behaviors.

### ***Implications***

This study's results have meaningful implications both academically and professionally. First, through the MEP theory (Gkargkavouzia et al., 2019), this study presents empirical evidence concerning the role of specific individual intrinsic motives (i.e., normative, hedonic, biospheric, altruistic, and egoistic motives) in enhancing three engagement experiences of residents related to tourism development pursuits, specifically, EPIs, TVCC, and STDPs. Alonso and Nyanjom (2016) suggested conducting more investigations on the influence of destination people's motives on the environmental behaviors of destination residents. The complex construction of the residents' motives notion provides academics with a better understanding of the positive role of residents' engagement by illustrating which combination of motives is most likely to be effective. Moreover, both PLS-SEM and fsQCA enabled us to prove that residents' motives enhance not merely TVCC pursuits but STDPs in NB-Ds as well.

Second, regarding professional implications, the study has produced empirical knowledge to support a novel approach which guarantees the effective engagement of destination residents concerning nature-based tourism businesses in Egyptian NB-Ds. The influence of this approach may help destination executives to control more mutually beneficial engagement interactions with the destination residents, using a combination of motivational interventions that represent the spirit of powerful TVCC and STDPs (Campos et al., 2015).

### ***Conclusion***

This study attempted to investigate how individuals' motives for pro-environmental behaviors and associated constraints affect residents' tendency to participate in TVCC and STDPs in NB-Ds. We investigated a set of destination residents' motivational variables that have not previously been fully considered in the tourism, TVCC, and sustainable destination development literature. The study model was examined employing a highly representative sample of local citizens and residents ( $N=587$ ). The consolidated findings verify the positive effect of five out of six of the residents' motives (namely, altruistic, normative, hedonic, biospheric, and egoistic) on TVCC ( $p<0.001$  in all variables), accepting Hypotheses 1, 2, 3, 4, and 6.

However, the most striking result is that gain motives appeared to have no impact on TVCC ( $p<0.001$ ), leading us to reject Hypothesis 5. It also appeared that constraints to motives ( $\beta=-0.27$ ) significantly, but negatively, influenced TVCC pursuits ( $\beta=0.27$ ), supporting Hypothesis 7. Likewise, the study found a significant influence of TVCC on STDPs ( $\beta=0.53$ ),

accepting Hypothesis 8. In our opinion, the results emphasize the validity of our model (see Figure 3) and make new contributions to this topic, by extending the evidence base regarding relationships among residents' motives, TVCC, and STDPs, in NB-Ds. From the fsQCA conducted in this research, we conclude that residents' MEP has a positive indirect impact on STDPs through the promotion of TVCC effects.

As noted above, the current study provides several insightful conclusions, both functional and theoretical. However, we admit that the study may have some limitations that necessitate treating the findings cautiously. Despite this, the study provides opportunities for further research. Firstly, we have explained how—can executives interact with reluctant residents to transform them from disengaged to engaged—by concentrating on two NB-D contexts. Future investigation could examine contexts where the multi-pronged nature of TVCC has not yielded positive outcomes (Uysala et al., 2020). This may help scholars and experts to profoundly grasp the underlying multi-motives and associated constraints that contribute to transforming reluctance to participate in EPIs into a driver for TVCC and STDPs. Secondly, the research participants were chosen through a convenience sampling approach, which may restrict the results and generalization of the conclusions beyond the recruited sample. Accordingly, future research could take better sampling approaches to address the issue of generalizability and to validate the reliability of the current findings and conclusions. Finally, the survey information used in this study is latitudinal data obtained in a short period of time. Therefore, future studies should consider collecting longitudinal data from various periods (Wang et al., 2019).

### Acknowledgement

We would like to thank the research assistant for circulating our questionnaire. We are also grateful to our respondent residents in both Hurghada and Sharm El-Sheikh for participating in the study.

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