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# Resident Sentiment toward a Dominant Tourist Market: Scale Development and Validation

## ABSTRACT

Given the limitations in existing resident attitude research, a new concept of *resident sentiment* is proposed to describe local residents' overall perceptions of and emotional dispositions toward a dominant tourist market, in which attitude is a constituent part and behavioral response is implied. To operationalize this higher-order latent concept, this study developed measurements for its five components (cognitive and affective attitudes, identification, and two collective mentalities) identified from an earlier exploratory study. An online survey received 1,000 usable responses from Hong Kong residents to validate this construct in a nomological network. The results not only indicate the reliability and validity of the refined scales, but also provide support for resident sentiment as a better indicator of residents' behavioral responses than attitude. Resident sentiment has the potential for significant use in extending resident attitude studies by academics, as well as being a performance measure for practitioners seeking destination sustainability.

**Keywords:** Resident Sentiment; Social Identity Theory; Identification; Sense of Superiority; Feeling of Relative Deprivation.

## 1. INTRODUCTION

Residents' attitudes toward tourism impacts and tourists in general have been extensively studied since the 1970s given the critical role of resident attitude in positive tourist experiences and sustainable tourism development. However, this line of research has encountered growing conceptual, theoretical, and methodological challenges (Li, Hsu, and Lawton 2015; Sharpley 2014). For example, attitude has been used primarily as a measure of within-group differences rather than within-group similarities in views of the world (Fraser 1994). Thus, the capability of attitudes in addressing the social essence of psychological phenomena is questionable (Howarth 2006). Numerous studies from a sociological perspective have revealed collective attitudes and emotions commonly shared by a given population, such as anti-immigrant/foreigner (Zamora-Kapoor, Kovincic, and Causey 2013) and anti-tourism/tourist sentiment (Seraphin, Sheeran, and Pilato 2018). Increasingly more tourism researchers have recognized that the collective attitudes and/or emotions permeated in a community are more than the sum of the individual members' attitudes/emotions – they reside in individual minds but are not unique to individuals, thus may be able to predict the intention and direction of collective actions more accurately than individualized attitudes (Hwang and Stewart 2016; Monterrubio and Andriotis 2014). Yet empirical research on community attitudes beyond an individual perspective is still in its infancy. In addition, the current resident attitude literature tends to frame residents' support for tourism development as a rational procedure, mostly neglecting the affective dimension of resident evaluation (Hadinejad et al. 2019). As a notable exception, Woosnam and colleagues (e.g., Woosnam and Norman 2010) emphasized the role of residents' emotional bonds with tourists in their positive perceptions of tourism impact and support for tourism development.

A vital concept in psychology and sociology, sentiment, has yet to enter mainstream tourism research. On the rare occasions when *sentiment* was mentioned, most likely it was

used as a synonym for *attitude* (Williams and Lawson 2001), *emotion* (Brown 2015), or *shared/public opinions* (Alaei, Becken, and Stantic 2017). Drawing upon definitions in social psychology to enhance and expand resident attitude research, Hsu, Li, and Chen (2016) first conceptualized *resident sentiment* (RS) as an encompassing construct to describe local residents' overall perceptions/views of and emotional dispositions toward tourism development, in which attitude is only one constituent part and behavior is implied. This conceptualization is well supported by psychological and sociological literature. Cattell (1950) categorized *attitude* and *sentiment* under one umbrella named *dynamic traits*, which encompass motives and mediate between environmental stimuli and behavioral responses. Cattell asserted that attitude, as the smallest unit among dynamic traits, is dependent on the larger, more complex concept of sentiment. Cattell (1940) distinguished sentiment from attitude, defining attitude as “an acquired neuropsychic disposition to react with belief, thought, feeling and overt behavior in a certain way toward a certain object, as part of the purposive plan of some larger sentiment or complex ...”; by comparison, sentiment represents “an acquired and relatively permanent major neuropsychic disposition to react emotionally, cognitively, and conatively toward a certain object (or situation) in a certain stable fashion ...” (p. 16). In short, attitude is a narrower, more discrete and transient construct (Howarth 2006) whereas sentiment is more encompassing, hierarchical and lasting (Allport 1935).

A core feature of sentiment is that it is environmental-mold – learned over time through experience with people (Ryckman 2008). This notion echoes Homans' (1947) argument that the elements of social behaviors – sentiment, action, and interaction – are interdependent: sentiment leads to activities and interactions, which in turn modify sentiment. Contrarily, attitude research usually isolates individuals from social environment or takes the environment as a given; ignoring individual–environment interaction hinders exploration of

1 how attitudes are shared or related, how attitudes and identities intersect, and how particular  
2 attitudes may affect social relations (Howarth 2006). Sentiment is superior to attitude in that  
3 it is inherently social (i.e., shared by many individuals) and thus constitutes a social reality  
4 that can affect individual behaviors.

5         Thus, RS was proposed as an indicator of social representations shared by a  
6 community and a more reliable antecedent of residents' behavioral responses (Hsu et al.  
7 2016). However, to the authors' knowledge, no consensus exists on how to measure  
8 sentiment in social science. Psychologists have mainly investigated sentiment via "systematic  
9 observation and clinical illustrations rather than by statistical or experimental means" (Cattell  
10 1940, 7). Sociological studies generally examine sentiment through naturalistic, descriptive  
11 methods and present the findings in a qualitative form (Zamora-Kapoor et al. 2013). Recent  
12 media research mainly adopts bipolar classification (i.e., positive and negative) to measure  
13 media sentiment (Hao et al. 2019). Hence, what other components or indicators are contained  
14 in RS besides "attitude" is unknown. The primary purpose of this study is to take an initial  
15 step toward operationalizing RS.

16         Moreover, as Kock, Josiassen, and Assaf (2019) criticized, many scale development  
17 studies in tourism lack tests of nomological validity using meaningful causal models. Only  
18 theoretical development, coupled with empirical testing of nomological networks, can  
19 sufficiently demonstrate the relevance of a developed scale as well as its theoretical  
20 soundness and usefulness to explain phenomena and enhance knowledge (e.g., Tsaur, Yen,  
21 and Teng 2018). Therefore, the secondary objective of this study is to examine the  
22 nomological validity of RS. Although Homans (1947) suggested that sentiment, action, and  
23 interaction are inherently interdependent, this interrelationship has not been assessed  
24 empirically given the lack of a sound sentiment measure. The present study thus investigates  
25 the relationships among RS and associated behavioral responses.

1           In exploring the components of RS, this study focuses on Hong Kong (HK) residents'  
2 sentiment toward the city's dominant source market, Mainland Chinese tourists (MCTs), for  
3 two reasons. First, RS must be investigated with a specific object. Because MCTs are  
4 becoming the dominant source market for increasingly more destinations, such as Thailand  
5 and the UK, the measurement of RS toward MCTs will be increasingly important. Second,  
6 HK is the first outbound destination to receive MCTs on a large scale, leading HK residents  
7 to interact frequently with this market. Thus, HK provides an ideal setting in which to  
8 observe resident–tourist interactions and explore resultant community sentiment.

## 2. LITERATURE REVIEW

### 2.1 Resident Attitude Studies

Residents' attitudes toward tourism development have been one of the longest-running and fruitful research areas in the tourism discipline (Sharpley 2014), given the assumption that resident attitudes can lead them to stand for or against such development. However, the predictive power of residents' attitudes to their behavioral responses toward tourism development or tourist groups remains controversial (Carmichael 2000; Nunkoo and Gursoy 2012). Do resident attitudes actually determine how residents behave? This question remains largely unanswered; few resident attitude studies have considered actual behavioral responses (Sharpley 2014) apart from the behavioral intention variable "support for/opposition to tourism development" (Nunkoo and Gursoy 2012).

Of the few studies that considered residents' specific behaviors, Ap and Crompton (1993) reported four types of reactions to tourism but did not test the attitude-behavior relationship empirically. Carmichael (2000) did not identify significant linkages between residents' attitudes toward casino gambling and subsequent actions, but recommended monitoring the pulse of local feelings. Although the attitude-behavior relationship has been recognized as non-deterministic, and the strength of this relationship is influenced by many factors (Joo et al. 2018), inadequate exploration of the relationship remains a glaring weakness in relevant research (Sharpley 2014).

Moreover, tourism scholars have criticized attitude theorists for not conceptualizing the social nature of attitudes (Andriotis and Vaughan 2003; Fredline and Faulker 2000). The most popular theoretical framework in resident attitude studies, social exchange theory, generally neglects sociocultural inputs that foster these attitudes at a community level (Hadinejad et al. 2019), although it is good at explaining individual attitude formation through a linear calculation of perceived costs and benefits. Other common frameworks, such

as social representations theory and identity theory (Nunkoo and Gursoy 2012), have also received criticism. Although social representations theory highlights the effects of social interactions on individuals' attitude formation (Fredline and Faulker 2000), it neglects individual capability and cannot explain why a particular perception is commonly held (Sharpley 2014). Furthermore, no studies of resident attitude have incorporated the interactive and mutually constitutive relationship between the "individual" and the "social" that is central to the theory of social representations. Little is therefore known about how resident attitudes are shared within a community, how certain attitudes relate to one another, and what the relation is between attitudes and identities.

Chen, Hsu, and Li (2018) introduced social identity theory into host–tourist relation research and demonstrated its applicability through qualitative findings. This theory was also adopted as the guiding framework in the present study, to bridge the gap between social exchange and social representations theories by highlighting individual residents' community membership; and to facilitate the understanding of community mentalities that belong to each member but transcending the sum of individual attitudes. In addition, employing social identity theory to examine resident sentiment toward a dominant tourist group is responding to the call for more affective assessment of resident attitude, because identity has been viewed as a psychological attachment to a specific group that connotes cognitive, evaluative, and emotional significance (Nunkoo and Gursoy 2012).

## **2.2 Sentiment as a Concept**

Sentiment is a widely examined but ambiguously defined concept in disciplines including psychology, sociology, and information sciences. Most empirical studies simply adopted "sentiment" as a default term synonymous with "emotion" or "attitude" (Cattell 1940), without defining it strictly. Psychologists initially defined sentiment as an enduring,

1 complex, organized system of dispositions to generate certain emotions under certain  
2 circumstances; this mental system can adapt itself emotionally to the changing situations of  
3 its object and persist indefinitely in correspondence with its object's duration without  
4 becoming morbid (Shand 1922). McDougall (1923) discussed three full-grown sentiments,  
5 *love, hate, and respect*, viewing them as systems comprised of enduring dispositions to  
6 experience emotions such as joy, gratitude, fear, anger, or shame whenever the loved, hated,  
7 or respected object comes to mind. Sentiment was later expanded beyond affective facets and  
8 defined as a more general, overarching, and complex system than attitude in social  
9 psychology, in which “a cognitive disposition is linked with one or more emotional or  
10 affective and conative dispositions to form a structural unit that functions . . . as one  
11 configuration or Gestalt” (McDougall 1923, 437). This intricate mental structure is thought to  
12 underlie all mental activities toward a certain object. In sociology, sentiment is  
13 conceptualized as macro-social mentalities combining emotions, social cognition, value  
14 orientations, and behavioral intention that disperse throughout society over a period of time  
15 (Wang 2013), leading to universal and consistent psychological characteristics and behavioral  
16 patterns shared by group members, which then influence individual behaviors (e.g., patriotic  
17 sentiment).

18         Given that sentiment is such an abiding and complex system of cognitive, emotional,  
19 and conative dispositions centered on certain objects, analyzing sentiment can be a challenge.  
20 Observing the conative tendencies of complex emotions is a potential approach (Shand 1922),  
21 as every emotion has its “characteristic conjunction of motor tendencies, which together give  
22 rise to the characteristic attitudes and expressions of the emotion” (McDougall 1923, 132). A  
23 systematic analysis of the myriad emotional dispositions within a sentiment system can reveal  
24 the underlying, stable sentiment toward an object. This backtracking method illustrates the  
25 determinant role of sentiment in attitudinal, emotional, and behavioral tendencies. For



instance, HK residents' self-reports normally include both positive and negative attitudes toward Mainlanders (Chen et al. 2018), precluding an explanation of why they oppose policies appealing to MCTs. Thus, examining their general sentiment toward MCTs may be able to clarify such resistance. As Cattell (1940, 11) mused, "Attitudes are twigs on the conative tree, of which the larger branches are sentiments. The attitude vectors differ from the sentiment vectors only in lesser length and, probably, in greater angular dispersion. The attitudes are architectonically dependent on the sentiment." Because this is the first study introducing the concept of RS into tourism research, this paper focuses on examining the structure of RS and testing its ability to predict residents' behavior.

### **2.3 Resident Sentiment Construct**

Following Jarvis et al.'s (2003) decision rules, this study conceptualized RS as a higher-order formative construct comprised of multiple lower-order latent variables, including attitude and other undetermined components. In this case, causality flows from these components to the unmeasurable latent construct of RS. The components of RS are not interchangeable – they do not necessarily co-vary, nor do they necessarily have the same antecedents and consequences. To develop measurement for a newly conceptualized construct and test it within a nomological network, we followed steps suggested by Churchill (1979) and abided by Howell, Breivik, and Wilcox's (2013) recommendations about modeling formative indicators as separate constructs. An exploratory qualitative study was first conducted to capture RS's content domain. In-depth interviews with the HK community identified five potential components of RS toward MCTs (Chen et al. 2018), falling under three main concepts: attitudes, identification, and mentalities, as described in the following subsections.

### ***2.3.1 Resident Attitude toward a Dominant Tourist Market***

Few studies have recognized the function of resident attitude toward a dominant source market in predicting residents' overall attitudes toward tourism development, although contact theory is widely advocated and positive interactions with tourists are considered a reliable indicator of residents' support for tourism (Joo et al. 2018). Residents' perceptions of tourists from a specific country have only received limited attention from stereotype researchers who are more concerned about the stigmatized tourist experience than hosts' experiences and reactions (Moufakkir 2015). Research into how residents' interactions with and impressions of a specific tourist group affect their overall sentiment toward tourism development is curiously rare (Joo et al. 2018; Sharpley 2014).

The classic tripartite model of attitude structure posits that attitude consists of cognitive, affective, and conative components (Breckler 1984), among which the cognitive and affective components have received the most attention from tourism scholars (Monterrubio and Andriotis 2014). Residents' cognitive attitude (CA) can be defined as their knowledge/perceptions/impressions of tourists, formed through direct personal experiences or secondary information sources. Affective attitude (AA) represents individual residents' feelings about tourists. CA is often considered an antecedent to AA.

For the current research, HK residents' CA toward MCTs was mainly derived from direct or indirect (e.g., through media or acquaintances) contact with MCTs. Many studies have revealed HK residents' unfavorable impressions of MCTs (Siu, Lee, and Leung 2013), mainly due to MCTs' inappropriate manners, habits, and customs (Zhang, Pearce, and Chen 2019). Residents therefore often reported negative feelings toward MCTs, such as dislike, anger, and disregard (Siu et al. 2013), with limited positive emotions associated with their appreciation of MCTs' strong purchasing power or sporadic positive interactions (Fan et al.

2017). Positive relationships among HK residents' CA and AA, as well as their behavioral responses toward MCTs, can be expected per triadic consistency theory (Norman 1975).

### ***2.3.2 Resident Identification with Tourists***

Social identity theory suggests that group identification is an indispensable variable in intra- and intergroup studies (Jackson 2002; Leach et al. 2008) because of its capability to predict in-group favoritism or collective attitudes and behaviors such as group commitment and emotional solidarity (e.g., Woosnam 2012). However, in-group members are also likely to demonstrate positive attitudes toward out-group members if they view themselves as members of a more inclusive, superordinate common group instead of as two separate groups (Gaertner, Dovidio, and Bachman 1996) or intergroup contact is cooperative and pleasant (Brewer 1996). Briefly, in-group favoritism or out-group bias can be reduced by intergroup cooperation or cognitive one-group representation.

Tourism has been shown to promote intergroup communication and understanding (Fan et al. 2017), with frequent host–tourist interactions potentially creating a new “we.” As Weinreich (1983) indicated, when one identifies with newly encountered individuals, one broadens his/her value system and establishes a new context for his/her self-definition, thereby initiating reappraisal of the self and others. However, the few tourism studies examining resident identity have mainly focused on their regional or cultural identities without considering the identification with tourists (e.g., Palmer, Koenig-Lewis, and Jones 2013). Notable exceptions are emotional solidarity studies by Woosnam and colleagues (e.g., Joo et al. 2018; Moghavvemi et al. 2017); they introduced emotional solidarity theory into the tourism literature, developed and tested a related measurement scale in multiple settings. Despite conflicting results (e.g., Moghavvemi et al. 2017), scholars generally agree that residents can develop a degree of emotional solidarity with tourists based on shared beliefs/behaviors and close interactions. Emotional solidarity can be thought of as a sense of

1 identification with others, whereby a sentiment of “we together” is championed over the  
2 “self–other” dichotomy (Woosnam 2012). While residents’ emotional solidarity with tourists  
3 is often tied to positive perceptions of and support for tourism development, not all residents  
4 develop emotional closeness with tourists. Ye, Zhang, Shen, and Goh (2014) noted that  
5 commonalities in residents’ and tourists’ social identities could shape residents’ attitudes  
6 toward tourists and tourism development; however, this result has not been verified  
7 quantitatively. This study aims to fill this gap by examining how residents’ identification with  
8 tourists determines their behavioral responses.

9         Within this study context, an unambivalent group identity, “Hongkongers,” has  
10 become increasingly apparent among the host community because of frequent intergroup  
11 comparisons made with MCTs (Chen et al. 2018). HK residents’ efforts in maintaining this  
12 in-group identity are reflected in claims of intergroup differences rather than an emphasis on  
13 in-group similarities. This intergroup distinction is rooted in HK’s colonial history. Before  
14 the return of its sovereignty to China, HK residents maintained a Chinese identity as a  
15 distinction from British colonizers; after its return, the regional HK identity has become  
16 increasingly salient in differentiating themselves from Mainlanders because of HK’s stronger  
17 economic power (Hong, Chiu, Yeung, and Tong 1999). However, the superior HK identity  
18 has faced unprecedented challenges in recent years due to the Mainland’s rising economic  
19 status and perceived threats. Such challenges have prompted more Hongkongers to reconsider  
20 their group identity and their identification with Mainlanders, which will likely alter their  
21 attitudinal and behavioral responses to MCTs and perhaps even their support for tourism  
22 development associated with this dominant tourist market. A positive relationship is thus  
23 proposed between residents’ identification with tourists and their behavioral responses.

### 2.3.3 *Mentalities Generated from Social Comparisons with Tourists*

Social identity theory posits that people's instinctive need for a positive self-identity motivates social comparisons that favorably differentiate in-group from out-group members (Tajfel and Turner 1979). When facing an outsider/tourist group, residents may engage in upward and downward comparisons for distinct reasons: upward comparison (with superior others) is inspired by self-evaluation and self-improvement, whereas downward comparison (with inferior others) is driven by self-enhancement. Upward comparison often results in negative affective reactions while downward comparison leads to positive ones (Smith 2000). However, Buunk et al. (1990) revealed that either comparison direction can generate various emotions, indicating that the direction does not necessarily predict people's emotional and behavioral responses toward outgroups. Understanding the more enduring and stable sentiment triggered by intergroup comparisons may more accurately predict individuals' specific emotional and behavioral responses.

A feeling of relative deprivation can be generated from residents' self-assessments of their own community's condition by comparing with the tourists' (Seaton 1997). Specifically, material and income deprivation felt by residents can be induced by contact with tourists, tourist provisions, and tourism employment. Sense of relative deprivation can also be produced by comparisons against past living conditions and social justice philosophy (Peng, Chen, and Wang 2016). Smith et al. (2012) stated that feeling of relative deprivation, which often follows from upward comparison, can also serve as motivation affecting further judgments that one's in-group is disadvantaged compared to a reference group. Various emotions may thus be evoked regarding the relatively advantaged group (e.g., admiration, envy, entitlement, anxiousness, depression, anger, and resentment), which can engender different behavioral responses such as assimilation, hostility, or resistance (Smith et al. 2012). In tourism research, group relative deprivation has been found to promote in-group serving

1 bias and foster out-group prejudice, thus facilitating the prediction of collective actions such  
2 as social protests (Seaton 1997).

3 Residents' downward comparison with inferior or disliked tourists may help them  
4 compensate for a feeling of deprivation and sustain/enhance self-esteem and superiority  
5 (Wills 1981). Superiority is an indicator of "narcissism" in psychology or a dimension of  
6 "nationalism/collective narcissism" in sociopsychology. Collective superiority has been  
7 deemed effective in protecting group esteem and a weak or threatened social identity (Golec  
8 de Zavala et al. 2009). Westburgh (1936) defined sense of superiority as a simple sentiment  
9 consists of systematized beliefs and emotions to certain objects (e.g., persons, activities, and  
10 relationships), noting that the superiority–inferiority sentiment can be transferred to others or  
11 all problems presented by the environment. Once a superiority sentiment is formed, the  
12 emotions and characteristic reaction pattern it invokes (e.g., arrogance, contempt, or  
13 compassion) may be assigned to any objects through accidental association (Westburgh  
14 1936).

15 In this study, two intertwined mentalities were identified permeating the HK  
16 community toward MCTs: a sense of group superiority and a feeling of relative deprivation  
17 (Chen et al. 2018). These contradictory mentalities were derived from residents' conscious or  
18 subconscious comparisons with MCTs, as representatives of the HK community rather than  
19 as individuals. According to Westburgh (1936), it can be speculated that once residents form  
20 a complex sentiment featuring superiority and relative deprivation feelings, their emotional  
21 and behavioral responses to all issues related to MCTs may align with that sentiment.

22 Based on the above literature, a conceptual model is proposed (see Figure 1) to depict  
23 causal relationships between the five-component RS and its behavioral responses. The  
24 predictability of cognitive and affective attitudes to behavioral responses is supported by  
25 attitude–behavior theory; the predictability of the other three RS components to behavioral

1 responses is grounded in the function of sentiment recognized by psychologists. Pear (1922)  
2 stated that the accurate predictive power to behavior is a prominent feature of sentiment.  
3 Shand (1922) explained that because sentiment embodies a system of several emotional  
4 dispositions connected with a common object and subordinated to a common end, each  
5 emotional disposition may have unique conative tendencies, leading to behavior-related  
6 predictability varies in direction and intensity.

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8 **INSERT FIGURE 1**  
9 -----

### 3. METHODOLOGY

#### 3.1 Measurement Development

A questionnaire was developed based on the literature and in-depth interviews ( $N = 39$ ). Thirty-five cognitive attributes related to MCTs were extracted from interview results to measure HK residents' CA toward MCTs. Measurements of AA were drawn from the attitude literature (Batra and Ahtola 1991). Respondents were asked to evaluate their affective impressions of MCTs on a 7-point bipolar scale along with three pairs of semantic differential items.

Established measures of group identification in social psychology focus on individuals' identification with an in-group rather than an out-group (e.g., Ellemers, Kortekaas, and Ouwerkerk 1999); adaptation was thus made on the five selected items (Ellemers et al. 1999; Leach et al. 2008) to suit the context of this study. Respondents were asked to rate their level of identification with MCTs, an out-group visiting their community. No established measurement was identified for sense of superiority, whether at the individual or collective level; thus, six items were developed from interview results while referring to two dimensions of Golec de Zavala et al.'s (2009) collective narcissism scale (i.e., superiority and entitlement). Respondents were asked to think about their own community and indicate the extent to which they believed certain aspects were superior to MCTs'.

Given the scarcity of tourism research on resident sense of deprivation, four items were developed by referring to established measurements of relative deprivation in social psychology (Osborne, Sibley, and Sengupta 2015). Respondents were asked to compare the current pecuniary situation of HK with that of MCTs and indicate the extent to which they felt being deprived as a community. Seven-point Likert scales, with "1" = "strongly disagree" to "7" = "strongly agree", were used to assess all the above items.



Finally, residents' behavioral responses to MCTs (4 items) and support for tourism development (3 items) were used to operationalize the behavioral consequences of RS. Tourism Impact Attitude scale (Lankford and Howard 1994) and Williams and Lawson's (2001) tourist preference statements were referred when phrasing items. A 7-point Likert scale, where "1" = "extremely unlikely" to "7" = "extremely likely", was used.

### **3.2 Data Collection and Analysis**

The questionnaire was prepared in HK's two official languages, traditional Chinese and English. Back translation was used to ensure accuracy and equivalence of the Chinese questionnaire. Four experts assessed items' face and content validity. Based on their feedback, the questionnaire was modified and pilot tested with a convenience sample of 199 HK residents to examine the scales' content validity and reliability. All items demonstrated satisfactory reliability (all reliability coefficients exceeded 0.7) and were thus retained for the formal survey.

Formal data collection was conducted online in Nov 2016, by a research company who sent email invitations to 40,000 HK permanent residents. A quota/criteria control was employed to obtain a representative sample in terms of age, gender, and household income. Ultimately, 1,000 usable responses (890 Chinese and 110 English) were obtained. Data were imported into SPSS.25 and AMOS.25 for analyses.

Data analyses started with an exploratory factor analysis (EFA) on CA to reduce the number of measurement items and identify underlying dimensions, followed by a confirmatory factor analysis (CFA) to test whether the underlying structure could form a tenable measurement model for CA (DeVellis 2003). The sample was randomly split into two halves, one serving as a calibration sample ( $n = 487$ ) for EFA and the other as a validation sample ( $n = 513$ ) for CFA. The multi-dimensional measurement model of CA derived from

1 EFA and CFA was then cross-validated using the entire sample ( $N = 1,000$ ). The reliability  
2 and validity of other unidimensional constructs were evaluated by CFA directly using the  
3 whole sample. Covariance structure analysis was then conducted to assess RS components  
4 and behavioral responses.

## 4. RESULTS

### 4.1 Respondent Profile

The profile of respondents in Table 1 demonstrates a representative sample of HK permanent residents in terms of age, gender, residential area, and household income (Census and Statistics Department 2017). Most respondents (85%) did not receive any income from tourism industries. Only 4.2% had never visited the Mainland. Nearly 90% identified themselves as primarily Hongkongers. Moreover, respondents reported infrequent communication with MCTs in general ( $M = 3.42$ ) but discussed MCTs with other HK residents more often ( $M = 4.12$ ). Among the 456 respondents with an above-average contact frequency, 92% communicated with MCTs in a work setting and 83% lived in tourist areas. Respondents frequently obtained information about MCTs from news and social media ( $M = 4.36$ ) and acknowledged the influence of the media on their feelings about MCTs ( $M = 4.63$ ).

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### INSERT TABLE 1

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### 4.2 Purification of Cognitive Attitude Measures

#### 4.2.1 EFA Results of Cognitive Attitude

Table 2 presents factor analysis results for residents' CA toward MCTs. The KMO measure of sampling adequacy (0.95) and Bartlett's test of sphericity (prob. < 1%) indicated that factor analysis would be appropriate. Factors were extracted using the principal component method with oblique rotation to allow for correlations among factors. Four factors were retained based on two criteria (Field 2018), namely scree plot examination and Kaiser's criterion (i.e., retaining factors with eigenvalues greater than 1), explaining 56.2% of the total variance. Five items were excluded because of low or cross-loadings. Factor loadings greater than 0.35 were considered statistically significant based on a sample size of 487 respondents

(Hair, Black, and Babin 2010). All factors demonstrated satisfactory scale reliability (Cronbach's  $\alpha \geq 0.6$ ) (Hair et al. 2010).

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#### INSERT TABLE 2

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#### 4.2.2 Validating the Higher-order Structure of Cognitive Attitude

The measurement structure of CA derived from the EFA was verified and refined by a second-order CFA with maximum likelihood estimation using the validation sample. The initial hypothesized factor model of CA (Model 1; see Table 3) comprised four latent factors with 30 manifest variables, and each pair of latent factors could co-vary.

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#### INSERT TABLE 3

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Due to a lack of theoretical agreement, the CA model was re-specified to achieve better parsimony and fitness based on standardized residual covariance, squared multiple correlations (SMC), modification indices, and expected parameter change statistics (Hatcher 1994). The re-specified model (Model 2) exhibited satisfactory goodness-of-fit indices; however, the average variance extracted (AVE) for two factors, *Comparative Traits* (31%) and *Wealth* (45.6%), fell below the recommended 50% threshold (Hair et al. 2010) and thus did not demonstrate convergent validity. Also, the correlation between *Negative Impressions* and *Comparative Traits* ( $r = .92$ ) was above the recommended criterion of 0.8. Before making a hasty decision to drop these components for better statistics, the higher-order structure of CA was re-tested using the whole sample ( $N = 1,000$ ) to establish a tenable measurement model for the construct, because a large sample size would ensure relatively stable estimation for complicated models.

With the full sample, *Comparative Traits* and its indicators were removed from the model due to extremely low SMC values ( $< 3.0$ ) and low factor loadings ( $< 5.0$ ). To obtain a more parsimonious model, one item from *Positive Impressions* and five items from *Negative Impressions* were removed because of low contributions to their respective latent factors or due to cross-loadings. The refined three-factor CA measurement model (Model 3; see Table 3) fit the data well. As shown in Table 4, composite reliabilities (all greater than 0.60) reflected the internal consistency of items in each construct (Bagozzi and Yi 2012). The C.R. and AVE values lend additional evidence of convergent validity for CA and its three components. Discriminant validity was established because AVE values far exceeded the squared correlations between any pair of components.

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**INSERT TABLE 4**

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Next, to reduce the second-order CA to a first-order variable, the mean of two indicators of *Wealth* was computed to represent this component, while two one-factor congeneric models were tested for *Positive* and *Negative Impressions of MCTs*, each having multiple indicators. By fitting one-factor congeneric models, factor score weights were employed to compute composite scores for these two CA components. The benefits of weighted composites include minimizing measurement error in items and increasing the reliability and validity of computed scores (Holmes-Smith and Rowe 1994; Table 5). Discriminant validity was achieved because AVE values were greater than the square of the correlations between the three components. Thus, CA can be considered a first-order latent variable accounting for the covariance of three reliable and valid composite variables, which were used as indicators in subsequent analyses.

1 **INSERT TABLE 5**

2 -----

3

4 **4.3 Overall Measurement and Structural Models**

5 CFA was first employed to assess the reliability and validity of construct measures.

6 The CFA resulted in the elimination of one item each from CA, “support tourism

7 development in HK” (Support-TD), and “identification” (ID) with MCTs due to low factor

8 loadings or SMC values. Multiple fit indices indicated that the revised measurement model fit

9 the data well ( $\chi^2/df = 3.04$ ,  $p = .000$ ; GFI = .942; AGFI = .924; NFI = .95; CFI = .966;

10 RMSEA = .045; SRMR = .048).

11 As listed in Table 6, the composite reliabilities (all greater than 0.7) reflect the

12 internal consistency of items in each construct. Convergent validity can be claimed because

13 the minimum standardized factor loading (= 0.57) exceeded the 0.5 threshold, and the

14 minimum C.R. (= 17.13) was much higher than the threshold of 2 (Hair et al. 2010).

15 Moreover, AVE scores were mostly above 50% except for “sense of superiority” (SUP, 0.44)

16 and “feeling of relative deprivation” (RD, 0.47). Netemeyer, Bearden, and Sharma (2003)

17 indicated that for new scales, a low AVE value near the threshold of 0.45 could be reasonable

18 and acceptable. These two variables were thus retained due to the exploratory nature of this

19 study.

20 -----

21 **INSERT TABLE 6**

22 -----

23 AVE values for any pair of factors were compared to the square of the correlation

24 between these factors, substantiating the discriminant validity of AA, SUP, and RD. The

25 discriminant validity of CA and ID was questionable; their AVE values were much lower

than their squared correlations, and marginally high correlations were observed between CA, ID, and AA ( $> 0.83$ ). However, the more rigorous Chi-square difference test showed that CA was still significantly different from ID. A multicollinearity test was also performed, and low variance inflation factors (ranged from 1.45 to 2.64) indicated no multicollinearity threat (Hair et al. 2010).

The next step was to examine the hypothesized structural model (i.e., Figure 1), including 10 gamma paths between the five predictor variables and the two dependent variables. Covariance between CA, AA, and ID was allowed due to high correlations between these constructs. This baseline model did not display an optimal fit ( $\chi^2 = 854.62$ ,  $df = 253$ ,  $p = .000$ ;  $\chi^2/df = 3.38$ ; GFI = .937, AGFI = .919, NFI = .943, TLI = .952, CFI = .959, RMSEA = .049, SRMR = .095) according to the stringent cutoff values adopted here (Hair et al. 2010; Hu and Bentler 1999). The path diagram is illustrated in Figure 2.

## INSERT FIGURE 2

The SMC ( $R^2$ ) indicated that RS explained only 14.3% of the variance in Support-TD but 79% of the variance in Behavioral Response to MCTs (Beh-Resp). Path coefficients revealed that neither CA nor AA exerted a significant effect on both dependent variables ( $p > 0.05$ ), which was surprising because the attitude-behavioral intention relationship has been widely confirmed (Palmer et al. 2013). Contrarily, ID had a dominant positive influence ( $\beta = .94$ ) on Beh-Resp. A dominant exogenous variable leading to non-significant coefficient estimates of the other predictors is a tell-tale sign of multicollinearity, which may also lead to “wrong” coefficient signs and unstable parameter estimates (Grewal, Cote, and Baumgartner 2004). To mitigate the effects of multicollinearity, alternative models were tested by considering other potential factors that may influence the accuracy of estimation results

(Mason and Perreault 1991). This approach can make a case for the most defensible solution and ensure a reasonable interpretation (Marsh et al. 2004).

As shown in Table 7, to test the statistical significance of the difference between the path coefficients of CA, ID, and AA and perhaps resolve the multicollinearity issue, six paths in the alternative Model 2 (i.e., between the three highly correlated exogenous variables [CA, ID, and AA] and two dependent variables) were constrained as equal. If their path coefficients do differ significantly, then the baseline model (i.e., Model 1) should fit the data significantly better than Model 2. Results indicated that the difference in Chi-squares for the two models ( $\Delta\chi^2 = 417.3$ ,  $\Delta df = 7$ ) was statistically significant ( $p < 0.001$ ). Other fit indices showed that the fit of Model 2 was worse than that of Model 1, and the correlations between CA, ID, and AA were the same in both models. Model 2 was thus rejected.

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#### INSERT TABLE 7

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In Model 3, a second-order factor was proposed as a highly abstract representation of CA, AA, and ID; thus, these three lower-order factors were construed as three correlated dimensions of the higher-order factor (Bagozzi and Yi 2012). Causal paths were added between this factor and two dependent variables. Fit indices demonstrated that this model fit the data well. High factor loadings and low error variances further indicated that CA, AA, and ID captured the proposed abstract factor well. However, this higher-order factor is not a real, justified concept with literature support; the tripartite attitude structure consists of cognition, affect, and conation (Breckler 1984) rather than identification. Therefore, Model 3 was not an ideal choice although its fit indices were better than those in the baseline model.

Model 4 was proposed by exploring the potential causal relationship between the five exogenous variables. As Shieh (2010) reminded, misconceptions of multicollinearity may



1 hinder the detection of interaction effects. Inter-correlations among predictor variables do not  
2 always indicate a multicollinearity problem that should be mitigated by dropping variables,  
3 and advanced methodology should be proposed to “fully account for the intertwined structure  
4 in order to help advance social science theory” (p. 485). This proposition is echoed by  
5 Kline’s (2015) argument that mediation relationships are often overlooked when  
6 multicollinearity exists between a causal variable and mediator. Therefore, potential causal  
7 relationships between the five RS components were explored by considering the construct’s  
8 definition, interview results, and evidence from the literature. The recognized hierarchy  
9 model of cognition-affect-conation (Lutz 1977) suggests that cognition serves as the primary  
10 activator in individual response process. In this context, impressions of MCTs’ salient  
11 features provided HK residents a cognitive foundation upon which feelings and identification  
12 could be developed. Therefore, Model 4 was proposed by adding causal paths between CA  
13 and the other four RS components.

14       After several rounds of modification by dropping non-significant causal paths based  
15 on modification indices, full mediation effects were identified among the five RS components  
16 (see Figure 3): ID and AA served as full mediators between CA and the dependent variables,  
17 while SUP and RD served as full mediators between AA and the dependent variables. No  
18 partial mediation effect was identified; because once the mediators (AA, ID, SUP, and RD)  
19 were controlled, the effects of CA and AA on the dependent variables became non-significant  
20 (as shown in Model 1). In other words, CA and AA did not exert direct influences on  
21 behavioral responses but exhibited indirect effects through the other three components. In  
22 addition, a significant positive causal path was identified between ID and RD. As shown in  
23 Table 7, causal paths from the five RS components to Beh-Resp were all significant at  $p$   
24 = .001, and Beh-Resp exhibited a high  $R^2$  value of 0.8 (i.e., 80% of the variance in Beh-Resp

could be explained by the five RS components). Conversely, only 13% of the variance in Sup-TD could be explained by CA, AA, and SUP.

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**INSERT FIGURE 3**

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Finally, to examine whether RS has a stronger predictive power than the attitude construct to behavioral responses, an attitudinal-behavioral response model was tested by removing the three newly identified RS components (i.e., ID, RD, and SUP); only CA and AA were retained as predictors of dependent variables. This model demonstrated a moderate fit ( $\chi^2 = 279.4$ ,  $df = 54$ ,  $p = .000$ ;  $\chi^2/df = 5.18$ ; GFI = .960, AGFI = .932, NFI = .968, TLI = .963, CFI = .974, RMSEA = .065, SRMR = .068). All causal paths were significant at  $p = .001$  (Figure 4), with AA as a full mediator between CA and Sup-TD. While 67% of the variance of Beh-Resp could be explained by CA, only 3% of the variance of Sup-TD could be explained by CA and AA, far below the variance explained by the five-component RS. Therefore, sentiment was found to be a better predictor than attitude in explaining residents' behavioral responses to tourists and tourism development.

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**INSERT FIGURE 4**

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## 5. DISCUSSION AND CONCLUSION

### 5.1 Resident Sentiment

The aim of this study is to operationalize RS, a formative construct including five components. Following a scientific scale development procedure, measurements were developed for all five components and validated in a structural model with consequence variables. RS was not calculated as a composite of its components, because a composite cannot explain more variance in a dependent variable than regression based on the components of the composite (Howell et al. 2013). Noteworthy differences were identified among the five components' predictability of the dependent variables.

Specifically, HK residents' CA toward MCTs was reflected in the perceived positive and negative behaviors/features of MCTs, supporting Chen et al.'s (2018) results. However, different from prior resident attitude research results (e.g., Ribeiro, Pinto, Silva, and Woosnam 2017), no significant direct causal effects were identified from either CA or AA to behavioral responses. The causal influences of HK residents' CA on behavioral responses were fully mediated by their identification with the tourist group and all affective components of RS (i.e., AA, RD, and SUP). This pattern substantiates Norman's (1975) belief that emotions, especially those derived from personal experiences, are essential driving forces to transfer cognitions into actions. The final model also affirms social identity theory which suggests social groups offer the characteristics that define members' self-concept by providing normative values and emotional attachment associated with group membership (Tajfel and Turner 1979). In this context, once HK residents increase their identification with MCTs, their self-concept may encompass a greater proportion of Chinese identity which is shared by MCTs; subsequently, the emotional and evaluative significance attached to the Chinese will be enhanced. CA provides cognitive materials and principles for HK residents' identification process (Turner et al. 1987).

1 Similarly, the causal effect of HK residents' AA on their behavioral responses was  
2 entirely mediated by two contradictory mentalities widely shared by HK community  
3 members. Even so, this pair of ambivalent mentalities influenced residents' behavioral  
4 responses differently. Sense of superiority was the only direct predictor of HK residents'  
5 conditional support for tourism development, namely by diversifying the tourist population  
6 and controlling the number of MCTs. This positive relationship implies that the stronger HK  
7 residents' sense of superiority over MCTs, the more likely they are to support the tourism  
8 development strategy of attracting visitors from other markets. However, a strong sense of  
9 superiority over tourists does not necessarily indicate an opposition to interacting with them;  
10 on the contrary, in this study, a weak positive relationship was uncovered between SUP and  
11 Beh-Resp to MCTs. Perhaps HK residents' strong collective confidence underlying their  
12 sense of superiority inspired this counterintuitive result (Hong et al. 1999).

13 Conversely, the weak negative relationship between RD and Beh-Resp suggests that  
14 the stronger HK residents' feeling of relative deprivation compared to tourists, the lower  
15 residents' desire to interact with them; this trend supports our postulation. Yet HK residents'  
16 feeling of relative deprivation did not influence their support for tourism development  
17 because perceived deprivation was caused by MCTs, not all tourists. Additionally, an  
18 unanticipated causal relationship was observed between residents' identification with MCTs  
19 and their feeling of relative deprivation. This finding can be explained by relative deprivation  
20 theory: the stronger one's identification with an out-group, the fewer differences will be  
21 perceived between the in- and out-group; as such, people may assume that the magnitude of  
22 rewards received by these two groups should be the same. When the difference in reward  
23 magnitude is perceived as noticeably large or illegitimate, the disadvantaged group will feel  
24 deprived and treated unfairly (Seaton 1997). Thus, HK residents may firmly believe they

deserve the same, even better economic conditions than MCTs, given HK's more democratic and civilized social system compared to the Mainland.

## **5.2 Contributions to Knowledge and Implications**

The major contribution of this study comes through clarifying the structure of RS and developing measurements to assess its formative components, which can be employed by policymakers, destination marketers, and researchers in future work. This contribution is meaningful for several reasons. First, constructing and evaluating a formative RS enables an abstract, unmeasured concept to be measured in its broadest sense, which facilitates comparison of RS across destinations or tracking RS of one destination through its tourism development trajectory. Hair et al. (2010) stated that construction of a formative index is valuable when a concept is not theoretically established. The proposed RS scale can be adapted to examine various communities' sentiment toward particular tourist groups and overall tourism development. RS may have stronger explanatory power and wider applicability than resident attitude or emotional solidarity because it can accommodate positive and negative attitudinal and emotional dispositions held by individuals and groups.

Second, this study presented a scale development and validation procedure that is somewhat unique from previous studies. The conceptualization of RS provides a feasible framework to facilitate its operationalization, thereby avoiding the controversial MIMIC model measuring formative constructs (Lee, Cadogan, and Chamberlain 2013). To validate RS scale in a nomological network, an initial exploration and identification of potential inter-correlations among predictors of a formative construct was conducted; this approach has been suggested but rarely practiced by tourism researchers.

Third, relevant dependent variables were incorporated into the scale development to test the nomological validity of RS. This study is the first to examine the causal relationship

underlying RS and conative tendencies, offering empirical support for the construct's utility in explaining residents' behavioral responses to tourists and tourism development. As Kock et al. (2019) advised, integrating a new scale with other proper variables demonstrates a level of sophistication and theoretical consideration, which rarely found in traditional scale development research. Linking the new RS scale to dependent variables can integrate the new concept and its scale into existing research findings comprehensively, and thereby more convincingly introduce the new concept to relevant fields (Kock et al. 2019). The structural model testing results can also produce more intriguing implications for managers and tourism researchers.

The findings of this study also suggest practical implications for destination management organizations. First, a formative construct is a combination of multiple domains representing a latent construct that is formed throughout a process, thus has a higher degree of practical implication for managerial purpose (Coltman et al. 2008). For example, the relative magnitudes of direct and indirect effects may have distinct treatment or policy implications. In this study, ID was identified as the key mediator between CA and Beh-Resp toward MCTs, indicating that efforts to boost HK residents' identification with MCTs may improve their positive behavioral intentions more than altering their impressions. Second, measuring and evaluating RS on a continued basis will enable destination managers to timely adjust strategies and regulate tourism development within the psychological bearing capacity of the host community.

### **5.3 Limitations and Future Research**

The conceptualization and operationalization of RS remain preliminary. Our findings are focused on a specific community facing a dominant source market, such that the five identified components are associated with a specific tourist group. These results may thus not

be applicable to destinations and communities with different tourism development scenarios. However, as the fastest-growing source market in the world, MCTs have remained the worlds' top spender in international tourism since 2012 and become the dominant source market for increasingly more destinations (Arlt 2016). Therefore, other communities facing the same dominant source market can benefit from this study by obtaining a deeper insight into the resident-tourist relations and a tool to assess their residents' sentiment toward MCTs. Researchers and practitioners are encouraged to replicate and expand the RS study in other destinations to further validate domains and measurement of RS, or to identify RS unique to their communities. When designing RS questionnaire applicable to other communities, relevant literature needs to be considered. For instance, Woosnam's (2012) emotional solidarity scale could be incorporated when examining host communities that express positive sentiment toward tourists.

This study only incorporated consequences of RS to verify its nomological validity. Subsequent studies could explore the various antecedents of RS, because the five constituent components may have distinct antecedents. Other intervening factors, such as personal experience with tourism, social interactions with other residents, and perceived media sentiment, could also be examined. Finally, RS is shared among a community and is not unique to individuals; Fraser (1994) recommended that social representations be investigated via numerous externalized and institutionalized channels (e.g., books and mass media) and through social, legal, and religious practices and codifications. Therefore, future RS studies could adopt mixed research methods along with a media content analysis to produce new knowledge and advance theoretical development.

## REFERENCES

- Alaei, A. R., S. Becken, and B. Stantic. 2017. "Sentiment Analysis in Tourism: Capitalizing on Big Data." *Journal of Travel Research* 58 (2): 175-91.
- Allport, G. W. 1935. *Attitudes: a handbook of social psychology*. Clark University Press, Worcester.
- Andriotis, K. and R. D. Vaughan. 2003. "Urban Residents' Attitudes toward Tourism Development: The Case of Crete." *Journal of Travel Research* 42 (2): 172-85.
- Ap, J. and J. L. Crompton. 1993. "Residents' Strategies for Responding to Tourism Impacts." *Journal of Travel Research* 32 (1): 47-50.
- Arlt, W. G. 2016. "China's outbound tourism: history, current development, and outlook." In *Chinese Outbound Tourism 2.0*, edited by X. Li, 3-19. New York: Apple Academic Press.
- Bagozzi, R. P. and Y. Yi. 2012. "Specification, evaluation, and interpretation of structural equation models." *Journal of the Academy of Marketing Science* 40 (1): 8-34.
- Batra, R. and O. T. Ahtola. 1991. "Measuring the hedonic and utilitarian sources of consumer attitudes." *Marketing Letters* 2 (2): 159-70.
- Breckler, S. J. 1984. "Empirical validation of affect, behaviour, and cognition as distinct components of attitude." *Journal of Personality and Social Psychology* 47 (6): 1191-205.
- Brewer, M. B. 1996. "When contact is not enough: Social identity and intergroup cooperation." *International Journal of Intercultural Relations* 20 (3): 291-03.
- Brown, C. B. 2015. "Tourism, crime and risk perception: An examination of broadcast media's framing of negative Aruban sentiment in the Natalee Holloway case and its impact on tourism demand." *Tourism Management Perspectives* 16: 266-77.
- Buunk, B. P., R. Collins, S. Taylor, N. VanYperen, and G. Dakof. 1990. "The affective consequences of social comparison: Either direction has its ups and downs." *Journal of personality and social psychology* 59 (6): 1238-49.
- Carmichael, B. A. 2000. "A matrix model for resident attitudes and behaviours in a rapidly changing tourist area." *Tourism Management* 21 (6): 601-11.
- Cattell, R. B. 1940. "Sentiment or Attitude? The Core of a Terminology Problem in Personality Research." *Journal of Personality* 9 (1): 6-17.
- Cattell, R.B. 1950. *Personality: A systematic theoretical and factual study*. NY: McGraw Hill.
- Census and Statistics Department, Government of Hong Kong SAR. 2017. "Hong Kong Annual Digest of Statistics." Retrived from: <https://www.censtatd.gov.hk/hkstat/sub/sp140.jsp?productCode=B1010003>



- Chen, N., C. H. C. Hsu, and X. Li. 2018. "Feeling superior or deprived? Attitudes and underlying mentalities of residents towards Mainland Chinese tourists." *Tourism Management* 66: 94-107.
- Churchill, G. A. 1979. "A Paradigm for Developing Better Measures of Marketing Constructs." *Journal of Marketing Research* 16 (1): 64-73.
- Coltman, T., T. Devinney, D. Midgley, and S. Venaik. 2008. "Formative versus reflective measurement models: Two applications of formative measurement." *Journal of Business Research* 61 (12): 1250-62.
- DeVellis, R. F. 2003. *Scale development: Theory and applications*. 2nd ed. Thousand Oaks, London: Sage Publications.
- Ellemers, N., P. Kortekaas, and J. Ouwerkerk. 1999. "Self-categorisation, commitment to the group and group self-esteem as related but distinct aspects of social identity." *European Journal of Social Psychology* 29 (3): 371-89.
- Fan, X. F., H. Q. Zhang, C. L. Jenkins, and P. M. C. Lin. 2017. "Does Tourist–Host Social Contact Reduce Perceived Cultural Distance?" *Journal of Travel Research* 56 (8): 998-10.
- Field, A. 2018. *Discovering statistics using IBM SPSS statistics* (5<sup>th</sup> ed). Sage Publications Ltd.
- Fraser, C. 1994. "Attitudes, social representations and widespread beliefs." *Papers on social representations* 3: 13-25.
- Fredline, E. and B. Faulkner. 2000. "Host Community Reactions: A Cluster Analysis." *Annals of Tourism Research* 27 (3): 763-84.
- Gaertner, S. L., J. F. Dovidio, and B. A. Bachman. 1996. "Revisiting the contact hypothesis: The induction of a common ingroup identity." *International Journal of Intercultural Relations* 20 (3): 271-90.
- Golec de Zavala, A., A. Cichocka, R. Eidelson, and N. Jayawickreme. 2009. "Collective narcissism and its social consequences." *Journal of personality and social psychology* 97 (6): 1074-96.
- Grewal, R., J. Cote, and H. Baumgartner. 2004. "Multicollinearity and Measurement Error in Structural Equation Models: Implications for Theory Testing." *Marketing Science* 23 (4): 519-29.
- Hadinejad, A., R. Nunkoo, B. Moyle, N. Scott, and A. Kralj. 2019. "Residents' attitudes to tourism: a review." *Tourism Review*. 74 (2): 150-65.
- Hair, J. F., W. C. Black, and B. J. Babin. 2010. *Multivariate data analysis: A global perspective*. Pearson Prentice Hall.
- Hao, J. X., Y. Fu, H.C. Hsu, X. Li, and N. Chen. 2019. "Introducing News Media Sentiment Analytics to Residents' Attitudes Research." *Journal of Travel Research*, doi: 10.1177/0047287519884657

- Hatcher, L. 1994. *A step-by-step approach to using the SAS system for factor analysis and structural equation modeling*. Cary, NC: SAS Institute Inc.
- Holmes-Smith, P. and K. Rowe. 1994. "The development and use of congeneric measurement models in school effectiveness research." Paper presented at *International Congress for School Effectiveness and Improvement*, Melbourne.
- Homans, G. C. 1947. "A Conceptual Scheme for the Study of Social Organization." *American Sociological Review* 12 (1): 13-26.
- Hong, Y., C. Chiu, G. Yeung, and Y. Tong. 1999. "Social comparison during political transition: interaction of entity versus incremental beliefs and social identities." *International Journal of Intercultural Relations* 23 (2): 257-79.
- Howarth, C. 2006. "How Social Representations of Attitudes Have Informed Attitude Theories: The Consensual and the Reified." *Theory & Psychology* 16 (5): 691-14.
- Howell, R. D., E. Breivik, and J. B. Wilcox. 2013. "Formative measurement: a critical perspective." *ACM SIGMIS Database* 44 (4): 44-55.
- Hsu, C. H. C., X. R. Li, and N. Chen. 2016. "From resident attitude to resident sentiment analysis: exploring new conceptual directions." Paper presented at *the 2nd Global Tourism & Hospitality Conference*, Hong Kong, May 16-18.
- Hu, L. T. and P. M. Bentler. 1999. "Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives." *Structural Equation Modeling* 6: 1-55.
- Hwang, D., and W. P. Stewart. 2016. Social Capital and Collective Action in Rural Tourism. *Journal of Travel Research* 56 (1): 81-93.
- Jackson, J. W. 2002. "Intergroup Attitudes as a Function of Different Dimensions of Group Identification and Perceived Intergroup Conflict." *Self & Identity* 1 (1): 11-33.
- Jarvis, C. B., S. B. Mackenzie, P. M. Podsakoff, D. G. Mick, and W. O. Bearden. 2003. "A Critical Review of Construct Indicators and Measurement Model Misspecification in Marketing and Consumer Research." *Journal of Consumer Research* 30 (2): 199-218.
- Joo, D., A. D. A. Tasci, K. M. Woosnam, N. U. Maruyama, C. R. Hollas, and K. D. Aleshinloye. 2018. "Residents' attitude towards domestic tourists explained by contact, emotional solidarity and social distance." *Tourism Management* 64: 245-57.
- Kline, R. B. 2015. "The Mediation Myth." *Basic and Applied Social Psychology* 37 (4): 202-13.
- Kock, F., A. Josiassen, and A. Assaf. 2019. "Scale Development in Tourism Research: Advocating for a New Paradigm." *Journal of Travel Research* 8 (7):1227-29.
- Lankford, S. V. and D. R. Howard. 1994. "Developing a Tourism Impact Attitude Scale." *Annals of Tourism Research* 21 (1): 121-39.

- Leach, C. W., M. Van Zomeren, S. Zebel, .... and R. Spears. 2008. "Group-level self-definition and self-investment: a hierarchical model of in-group identification." *Journal of personality and social psychology* 95 (1): 144-65.
- Lee, N., J. W. Cadogan, and L. Chamberlain. 2013. "The MIMIC model and formative variables: problems and solutions." *AMS review* 3 (1): 3-17.
- Li, X., C. H. C. Hsu, and L. Lawton. 2015. "Understanding Residents' Perception Changes toward a Mega-Event through a Dual-Theory Lens." *Journal of Travel Research* 54 (3): 396-410.
- Lutz, R. J. 1977. "An Experimental Investigation of Causal Relations Among Cognitions, Affect, and Behavioral Intention." *Journal of Consumer Research* 3 (4): 197-208.
- Marsh, H. W., M. Dowson, J. Pietsch, and R. Walker. 2004. "Why Multicollinearity Matters: A Reexamination of Relations Between Self-Efficacy, Self-Concept, and Achievement." *Journal of Educational Psychology* 96 (3): 518-22.
- Mason, C. H. and W. D. Perreault. 1991. "Collinearity, Power, and Interpretation of Multiple Regression Analysis." *Journal of Marketing Research* 28 (3): 268-80.
- McDougall, W. 1923. *An introduction to social psychology*. Boston: John W Luce & Co.
- Moghavvemi, S., K. M. Woosnam, T. Paramanathan, G. Musa, and A. Hamzah. 2017. "The effect of residents' personality, emotional solidarity, and community commitment on support for tourism development." *Tourism Management* 63: 242-54.
- Monterrubio, J. C. and K. Andriotis. 2014. "Social representations and community attitudes towards spring breakers." *Tourism Geographies* 16 (2): 288-02.
- Moufakkir, O. 2015. "The stigmatized tourist." *Annals of Tourism Research* 53: 17-30.
- Netemeyer, R. G., W. Bearden, and S. Sharma. 2003. *Scaling procedures: Issues and applications*. Thousand Oaks, CA: Sage Publications.
- Norman, R. 1975. "Affective-cognitive consistency, attitudes, conformity, and behavior." *Journal of personality and social psychology* 32 (1): 83-91.
- Nunkoo, R. and D. Gursoy. 2012. "Residents' support for tourism: An Identity Perspective." *Annals of Tourism Research* 39 (1): 243-68.
- Osborne, D., C. Sibley, and N. Sengupta. 2015. "Income and neighbourhood-level inequality predict self-esteem and ethnic identity centrality through individual- and group-based relative deprivation: A multilevel path analysis." *European Journal of Social Psychology* 45 (3): 368-77.
- Palmer, A., N. Koenig-Lewis, and L. Jones. 2013. "The effects of residents' social identity and involvement on their advocacy of incoming tourism." *Tourism Management* 38: 142-51.
- Pear, T. H. 1922. "The relations of complex and sentiment IV." *British Journal of Psychology. General Section* 13 (2): 130-40.

- Peng, J., X. Chen, and J. Wang. 2016. "Applying relative deprivation theory to study the attitudes of host community residents towards tourism: the case study of the Zhangjiang National Park, China." *Current Issues in Tourism* 19 (7): 734-54.
- Ribeiro, M. A., P. Pinto, J. A. Silva, and K. M. Woosnam. 2017. "Residents' attitudes and the adoption of pro-tourism behaviours: The case of developing island countries." *Tourism Management* 61: 523-37.
- Ryckman, R. M. 2008. *Theories of personality*. Stamford, CT: Thomson/Wadsworth.
- Seaton, A. V. 1997. "Demonstration effects or relative deprivation? The counter-revolutionary pressures of tourism in Cuba." *Progress in Tourism and Hospitality Research* 3 (4): 307-20.
- Seraphin, H., P. Sheeran, and M. Pilato. 2018. "Over-tourism and the fall of Venice as a destination." *Journal of Destination Marketing & Management* 9: 374-76.
- Shand, A. F. 1922. "The relations of complex and sentiment III." *British Journal of Psychology. General Section* 13 (2): 123-29.
- Sharpley, R. 2014. "Host perceptions of tourism: A review of the research." *Tourism Management* 42: 37-49.
- Shieh, G. 2010. "On the misconception of multicollinearity in detection of moderating effects: Multicollinearity is not always detrimental." *Multivariate Behavioral Research* 45 (3): 483-07.
- Siu, G., L. Lee, and D. Leung. 2013. "Residents' perceptions toward the "Chinese tourists' wave" in Hong Kong: An exploratory study." *Asia Pacific Journal of Tourism Research* 18 (5): 446-63.
- Smith, R. H. 2000. "Assimilative and contrastive emotional reactions to upward and downward social comparisons." In *Handbook of social comparison*, edited by J. S. Wheeler, 173-200. Boston, MA: Springer.
- Smith, H. J., T. Pettigrew, G. Pippin, and S. Bialosiewicz. 2012. "Relative deprivation: A theoretical and meta-analytic review." *Personality and Social Psychology Review* 16 (3): 203-32.
- Tajfel, H., and J. C. Turner. 1979. An integrative theory of intergroup conflict. In *The social psychology of intergroup relations*, edited by W. G. Austin and S. Worchel, 33-47. Monterey, CA: Brooks Cole.
- Tsaur, S. H., C. Yen, and H. Teng. 2018. "Tourist-resident conflict: A scale development and empirical study." *Journal of Destination Marketing & Management* 10: 152-63.
- Turner, J. C., M. A. Hogg, P. Oakes, S. Reicher, and M. Wetherell. 1987. *Rediscovering the social group: A self-categorization theory*. Oxford: Blackwell.
- Wang, J. X. 2013. "Social emotions in the perspective of social mentality." *Journal of Yunnan Normal University*. 45 (5): 55-63.

- Weinreich, P. 1983. "Emerging from threatened identities: Ethnicity and gender in redefinitions of ethnic identity." In *Threatened identities*, edited by G. Breakwell, 149-85. Chichester: John Wiley.
- Westburgh, E. M. 1936. "Affective factors from the point of view of clinical psychology." *Psychological Monographs* 47 (2): 351-74.
- Williams, J. and R. Lawson. 2001. "Community issues and resident opinions of tourism." *Annals of Tourism Research* 28 (2): 269-90.
- Wills, T. A. 1981. "Downward comparison principles in social psychology." *Psychological Bulletin* 90 (2): 245-71.
- Woosnam, K. M. 2012. "Using emotional solidarity to explain residents' attitudes about tourism and tourism development." *Journal of Travel Research* 51 (3): 315-27.
- Woosnam, K. M., and W. C. Norman. 2010. "Measuring Residents' Emotional Solidarity with Tourists: Scale development of Durkheim's Theoretical Constructs." *Journal of Travel Research* 49 (3): 365–80.
- Ye, H. B., H. Zhang, H. Shen, and C. Goh. 2014. "Does social identity affect residents' attitude toward tourism development? An evidence from the relaxation of the individual visit scheme." *International Journal of Contemporary Hospitality Management* 26 (6): 907-29.
- Zamora-Kapoor, A., P. Kovincic, and C. Causey. 2013. "Anti-foreigner sentiment: State of the art." *Sociology Compass* 7 (4): 303-14.
- Zhang, C. X., P. Pearce, and G. Chen. 2019. "Not losing our collective face: Social identity and Chinese tourists' reflections on uncivilised behaviour." *Tourism Management* 73: 71-82.

**Table 1.****Respondent Profile (N = 1,000)**

	Percentage (%)	Statistics of HK Population in 2016
<b>Residential Area</b>		
<i>Hong Kong Island</i>	17.3	17.1
<i>Kowloon</i>	30.2	30.6
<i>New Territories</i>	52.5	52.3
<b>Gender</b>		
<i>Male</i>	45.4	45.7
<i>Female</i>	54.6	54.3
<b>Age</b>		
<i>15-24</i>	12.6	10.4
<i>25-34</i>	19.5	14.7
<i>35-44</i>	15.4	15.6
<i>45-54</i>	27.5	16.3
<i>55-64</i>	8.4	15.3
<i>65 and above</i>	16.6	16.1
<b>Monthly Household Income (HKD)</b>		
<i>Below \$10,000</i>	19.1	20.1
<i>\$10,000 - \$29,999</i>	38.2	36.3
<i>\$30,000 - \$49,999</i>	23.4	21.2
<i>\$50,000 and above</i>	19.3	22.4
<b>Self-Identity</b>		/
<i>Hongkongers</i>	54.3	
<i>Hongkongers but also Chinese</i>	34.7	
<i>Chinese but also Hongkongers</i>	8.1	
<i>Chinese</i>	2.6	
<b>Education Level</b>		
<i>Less than Secondary School</i>	10.9	18.7
<i>Secondary or High School Diploma</i>	25.7	49.7
<i>College/Vocational School</i>	23.1	7.6
<i>Degree and above</i>	39.9	24.0
<b>Receiving income from tourism industries</b>		/
<i>Yes</i>	14.8	
<i>No</i>	85.2	
<b>Friends/Relatives in Mainland China</b>		/
<i>Yes</i>	58.1	
<i>No</i>	41.9	
<b>Previous visits to Mainland China</b>		/
<i>Never</i>	4.2	
<i>Once or Twice</i>	24.7	
<i>3 times and above</i>	60.1	
<i>Lived there for at least one year</i>	11.0	

**Table 2.*****EFA Results for Cognitive Attitude (n = 487)***

Measurement Items	Cognitive Attitude Components			
	Factor 1: Negative Impressions	Factor 2: Positive Impressions	Factor 3: Comparative Traits	Factor 4: Wealth
<i>Spitting on the street</i>	.954			
<i>Smoking in non-smoking areas</i>	.904			
<i>Relieving themselves publicly</i>	.887			
<i>Eating or drinking on public transportation</i>	.875			
<i>Littering</i>	.778			
<i>Jumping the queue</i>	.703			
<i>Speaking loudly</i>	.688			
<i>Occupying the very limited public space available in HK</i>	.608			
<i>Competing for seats</i>	.589			
<i>Squatting /sitting everywhere</i>	.577			
<i>Performing as parvenu - often making unreasonable requests</i>	.522			
<i>Seldom keeping appropriate physical distance between individuals</i>	.426			
<i>Mostly moving in flocks</i>	.410			
<i>Acting as if money can solve all problems</i>	.387			
<i>Having concerns for others</i>		.874		
<i>Offering an apology for conflicts</i>		.841		
<i>Going native</i>		.822		
<i>Offering seats to people in need on public transportation</i>		.820		
<i>Always use courteous words</i>		.817		
<i>Obedying traffic rules</i>		.794		
<i>Are warm-hearted</i>		.718		
<i>Asking for direction in a polite manner</i>		.672		
<i>Paying more attention to the packaging than the product</i>			.748	
<i>Spending limited time in sightseeing, and more time in shopping</i>			.706	
<i>Traveling in a manner of passing glimpse</i>			.646	
<i>Are more materialistic than HK residents</i>			.507	
<i>Less educated comparing with HK residents</i>			.355	
<i>Having strong purchasing power</i>				.827
<i>Very rich</i>				.748
<i>Making a significant contribution to HK economy</i>				.628
<b>Initial Eigenvalues</b>	<b>10.51</b>	<b>3.83</b>	<b>1.41</b>	<b>1.13</b>
<b>% of Variance Explained (56.23% total)</b>	<b>35.02</b>	<b>12.77</b>	<b>4.69</b>	<b>3.76</b>
<b>Cronbach's Alpha</b>	<b>.931</b>	<b>.909</b>	<b>.637</b>	<b>.649</b>

**Note:** Principal Component Analysis

Rotation method – Promax with Kaiser Normalization.

KMO measure of sampling adequacy = .949

**Table 3.*****Fit Indices for Initial, Alternative, and Refined CFA Models of Cognitive Attitude***

	CA Structure	$\chi^2$	df	CMIN/ df	p	GFI	AGFI	NFI	TLI	CFI	RMSEA	SRMR
<b>Model 1</b>	<b>Initial Group-factor Model</b> (correlated 4-factor Model)	1043.43	399	2.62	.000	.881	.861	.876	.912	.919	.056	.083
<b>Model 2</b>	<b>Re-specified CA Model</b> (4 correlated factors)	585.23	309	1.89	.000	.923	.905	.924	.958	.963	.042	.040
<b>Model 3</b>	<b>Refined Model with the full sample</b> (correlated 3 factors)	209.27	105	1.99	.000	.976	.965	.978	.986	.989	.032	.028

**Note:** Models 1 & 2 were tested using the validation sample ( $n = 513$ ), while Model 3 was tested using the full sample ( $N = 1,000$ )



**Table 4.**

***Revised CFA Model of Cognitive Attitude***

Factors & Indicators	Standardized Loadings <sup>a</sup>	AVE <sup>b</sup>	C.R.	Composite Reliability
<b>Negative Impressions</b>				
<i>Cog11: Competing for seats</i>	.801		29.80	
<i>Cog14: Jumping the queue</i>	.793		29.18	
<i>Cog15: Squatting /sitting everywhere</i>	.784		28.70	
<i>Cog18: Speaking loudly</i>	.768		28.00	
<i>Cog21: Performing as parvenu - often making unreasonable requests</i>	.752	<b>0.56</b>	27.20	0.92
<i>Cog34: Littering</i>	.741		26.48	
<i>Cog2: Relieving themselves publicly</i>	.740		26.41	
<i>Cog12: Spitting on the street</i>	.701		24.37	
<i>Cog23: Acting as if money can solve all problems</i>	.657		22.49	
<b>Positive Impressions</b>				
<i>Cog30: Having concerns for others</i>	.833		31.40	
<i>Cog25: Offering an apology for conflicts</i>	.805		29.80	
<i>Cog28: Always use courteous words</i>	.788	<b>0.59</b>	28.68	0.90
<i>Cog4: Offering seats to people in need on public transportation</i>	.745		26.46	
<i>Cog33: Going native</i>	.745		26.75	
<i>Cog22: Obeying traffic rules</i>	.701		24.51	
<b>Wealth</b>				
<i>Cog16: Very rich</i>	.713	<b>0.47</b>	18.02	0.64
<i>Cog13: Having strong purchasing power</i>	.652		17.00	
	<b>Negative Impressions</b>	<b>Positive Impressions</b>	<b>Wealth</b>	
<b>Negative Impressions</b>	1.00	0.340 <sup>d</sup>	0.203	
<b>Positive Impressions</b>	-.583*** <sup>c</sup>	1.00	0.001	
<b>Wealth</b>	.450***	.029	1.00	

**Note.** CFA modification on CI measurements, with the full sample ( $N = 1,000$ )

<sup>a</sup> All loadings are significantly above 0.5 ( $p < .001$ ).

<sup>b</sup> AVE values were shown as decimals for ease in comparison with the squared correlations.

<sup>c</sup> Values shown below the diagonal are correlation estimates (at 2-tailed  $p$  level of .001).

<sup>d</sup> Values above the diagonal are the squared correlations.

**Table 5.***Correlations, Means, Standard Deviations of Three CA Facets*

	Positive Impressions	Negative Impressions	Wealth	MEAN	SD	Coefficient H <sup>d</sup>
Positive Impressions	1.00	.282 <sup>b</sup>	.000	3.32 <sup>c</sup>	1.39	.90
Negative Impressions	-.531** <sup>a</sup>	1.00	.126	5.48	1.17	.92
Wealth	.016	.355**	1.00	5.11	1.12	.63

**Note.** *N* = 1,000. \*\* Correlation is significant at the *p* level of .01 (2-tailed).

<sup>a</sup> Values shown below the diagonal are correlations.

<sup>b</sup> Values above the diagonal are the squared correlations.

<sup>c</sup> The scale: 1= Strongly disagree, 7 = Strongly agree.

<sup>d</sup> *Coefficient H* is the maximized reliability coefficient developed by Hancock & Mueller (2001).

Table 6.

*CFA Results for All Constructs*

Constructs	Indicators	Standardized Loadings <sup>a</sup>	AVE <sup>b</sup>	C.R.	Composite Reliability		
<b>Cognitive Attitudes (CA)</b>	<i>Positive Impressions</i>	.89	<b>0.57</b>	31.95	<b>0.72</b>		
	<i>Negative Impressions</i>	-.60		-20.55			
<b>Affective Attitudes (AA)</b>	<i>Negative - Positive</i>	.94	<b>0.90</b>	39.58	<b>0.97</b>		
	<i>Unpleasant - Pleasant</i>	.97		41.56			
	<i>Awful - Nice</i>	.95		40.06			
<b>Identification with MCTs (ID)</b>	<i>ID1: I feel a bond with MCTs.</i>	.76	<b>0.55</b>	27.71	<b>0.83</b>		
	<i>ID2: I think that MCTs have a lot to be proud of.</i>	.80		29.97			
	<i>ID3: I have a lot in common with the average MCTs.</i>	.79		29.22			
	<i>ID5: I have a lot of respect for MCTs.</i>	.58		19.64			
<b>Feeling of Relative Deprivation (RD)</b>	<i>RD1: I feel the purchasing power of MCTs is greater than that of HK residents.</i>	.67	<b>0.47</b>	21.38	<b>0.78</b>		
	<i>RD2: I feel the discretionary income of MCTs is higher than that of HK residents.</i>	.67		21.26			
	<i>RD3: I feel MCTs are better off than HK residents economically.</i>	.77		25.38			
	<i>RD4: I feel deprived when I see how prosperous MCTs seem to be.</i>	.63		19.98			
<b>Sense of Superiority (SUP)</b>	<i>SUP1: HK residents are more civilized than MCTs.</i>	.76	<b>0.44</b>	26.13	<b>0.82</b>		
	<i>SUP2: HK residents are more international than MCTs.</i>	.67		22.24			
	<i>SUP3: HK residents have a stronger sense of public morality than MCTs.</i>	.70		23.35			
	<i>SUP4: HK people receive better education than MCTs.</i>	.67		22.36			
	<i>SUP5: HK people deserve better things in life than MCTs.</i>	.59		18.86			
	<i>SUP6: HK people deserve better quality of life than MCTs.</i>	.57		18.03			
<b>Behavioral Responses to MCTs (Beh-Resp)</b>	<i>To interact more with MCTs</i>	.82	<b>0.59</b>	30.18	<b>0.85</b>		
	<i>To talk with my acquaintances about positive news on MCTs</i>	.75		26.20			
	<i>To recommend my acquaintances to watch/read positive news about MCTs</i>	.70		24.09			
	<i>To support HK to attract more visitors from the Mainland.</i>	.79		28.43			
<b>Support Tourism Development (Sup-TD)</b>	<i>To support tourism development in HK.</i>	.71	<b>0.56</b>	17.13	<b>0.72</b>		
	<i>To support HK to attract more visitors from other countries.</i>	.78		17.97			
	<b>CA</b>	<b>AA</b>	<b>ID</b>	<b>RD</b>	<b>SUP</b>	<b>Beh-Resp</b>	<b>Sup-TD</b>
<b>CA</b>	<b>1.00</b>	<b>0.80<sup>d</sup></b>	<b>0.84</b>	<b>0.06</b>	<b>0.08</b>	<b>0.63</b>	<b>0.01</b>
<b>AA</b>	.893*** <sup>c</sup>	<b>1.00</b>	<b>0.70</b>	<b>0.06</b>	<b>0.09</b>	<b>0.57</b>	<b>0.01</b>
<b>ID</b>	.919***	.838***	<b>1.00</b>	<b>0.15</b>	<b>0.09</b>	<b>0.79</b>	<b>0.01</b>
<b>RD</b>	.240***	.234***	.386***	<b>1.00</b>	<b>0.06</b>	<b>0.09</b>	<b>0.03</b>
<b>SUP</b>	-.285***	-.296***	-.303***	.252***	<b>1.00</b>	<b>0.05</b>	<b>0.15</b>
<b>Beh-Resp</b>	.796***	.754***	.887***	.296***	-.214***	<b>1.00</b>	<b>0.00</b>
<b>Sup-TD</b>	-.089**	-.090**	-.095**	.182***	.381***	-.002	<b>1.00</b>

Note. CFA on all constructs' measurements, with the full sample (N = 1,000)

<sup>a</sup> All loadings are significantly above 0.5 ( $p < .001$ ).

<sup>b</sup> AVE values were shown as decimals for ease in comparison with the squared correlations.

<sup>c</sup> Values shown below the diagonal are correlation estimates (\*\*at 2-tailed  $p$  level of .001; \* at  $p$  level of .05).

<sup>d</sup> Values above the diagonal are the squared correlations.

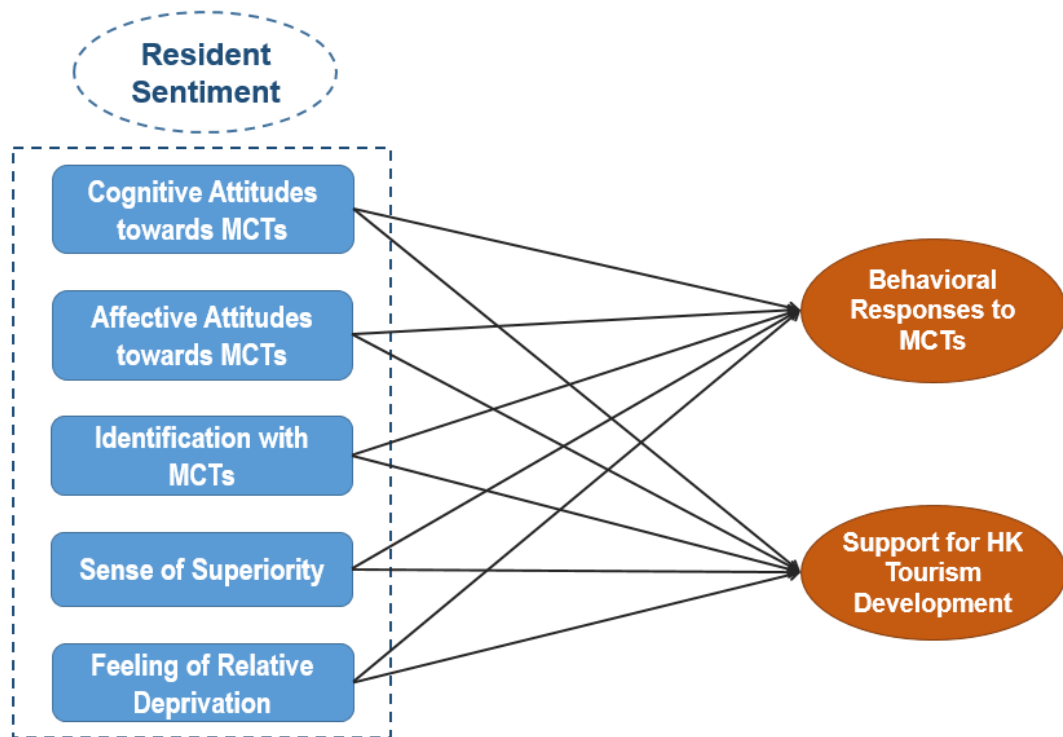
Table 7.

*Structural Equation Modeling Results (N = 1,000)*

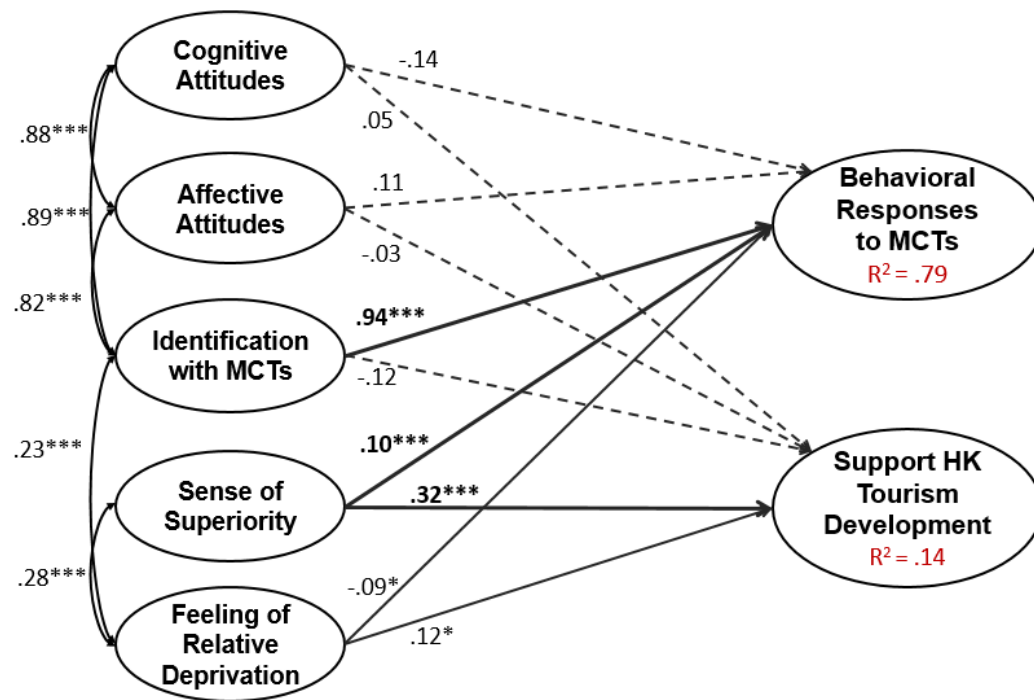
		$\chi^2$	df	CMIN/ df	p	GFI	AGFI	NFI	TLI	CFI	RMSEA	SRMR
Model 1 (Baseline Model)	Structure Model on the CFA results	854.62	253	3.38	.000	.937	.919	.943	.952	.959	.049	.095
Model 2	Constrained model	1271.9	260	4.89	.000	.909	.887	.916	.921	.932	.062	.126
Model 3	Second-order Factor Model	828.81	257	3.23	.000	.935	.918	.945	.955	.961	.047	.051
Model 4	Final Model	646.04	252	2.56	.000	.950	.936	.957	.968	.973	.040	.048

	Model 1_ Baseline Model			Model 2_ Constrained Model			Model 3_ Second-order Factor Model			Model 4_ Final Model		
	$\beta$	C.R.	p	$\beta$	C.R.	p	$\beta$	C.R.	p	$\beta$	C.R.	p
CA → Beh-Resp	-.137	-.910	.363	.236	24.94	***				/	/	/
AA → Beh-Resp	.106	1.559	.119	.312	24.94	***	.919	20.80	***	/	/	/
ID → Beh-Resp	.940	6.574	***	.235	24.94	***				.953	21.21	***
RD → Beh-Resp	-.092	-1.958	.050*	.190	5.742	***	.010	.330	.742	-.090	-2.74	.006**
SUP → Beh-Resp	.103	3.548	***	-.013	-.409	.683	.120	3.89	***	.096	3.364	***
								CA → AA		.903	36.77	***
								CA → ID		.949	25.99	***
								AA → SUP		-.336	-9.61	***
								AA → RD		-.416	-3.59	***
								ID → RD		.726	5.51	***
CA → Sup-TD	.047	.257	.797	.137	24.94	***				/	/	/
AA → Sup-TD	-.029	-.317	.751	.181	24.94	***	-.065	20.80	.134	/	/	/
ID → Sup-TD	-.117	-.736	.461	.136	24.94	***				/	/	/
RD → Sup-TD	.122	2.044	.041*	-.087	-2.70	.007**	.113	2.41	.016*	/	/	/
SUP → Sup-TD	.321	6.378	***	.353	10.72	***	.345	6.21	***	.360	7.67	***

Note:  $\beta$ : standardized regression weight; C.R.: Critical Ratio; \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

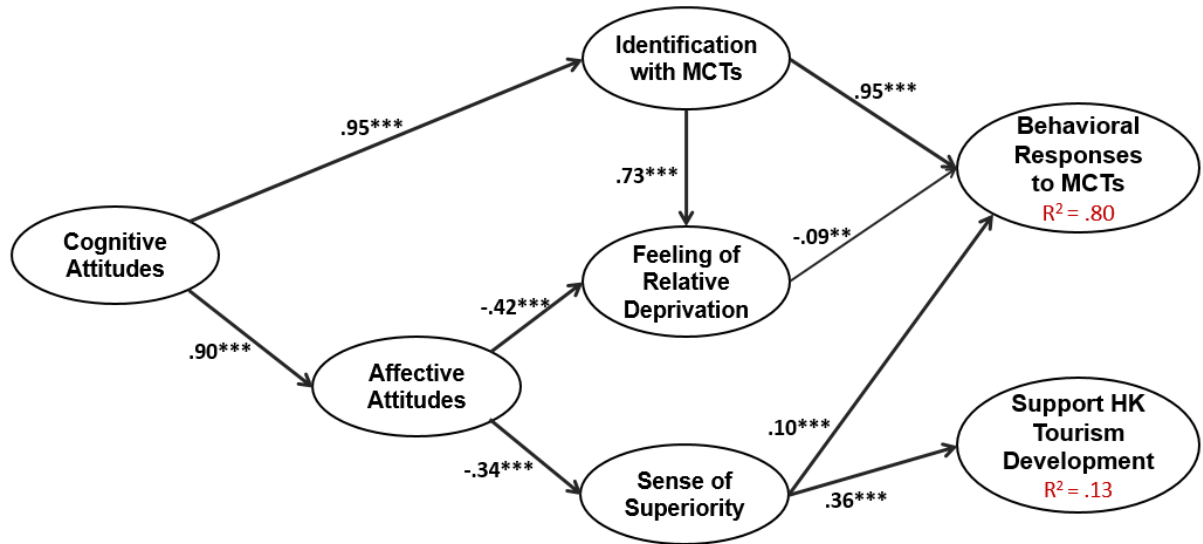


*Figure 1. Conceptual Model*



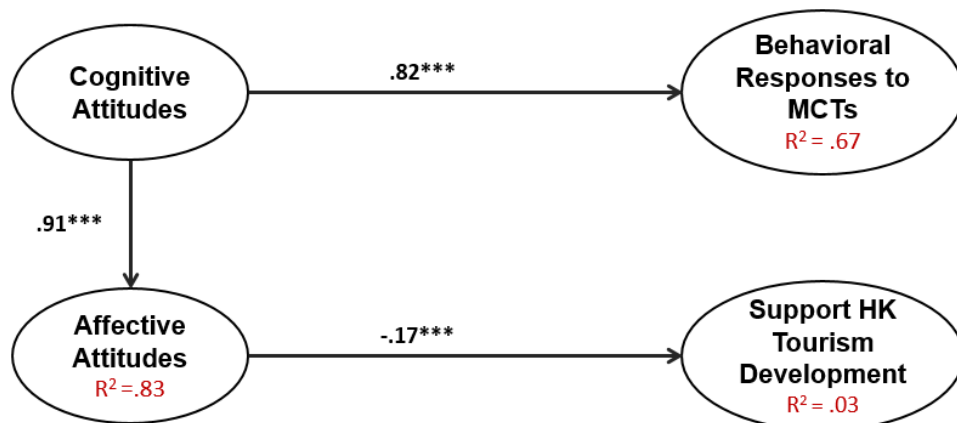
**Figure 2. Baseline Model with Standardized Paths**

*\*Significant path at the 0.05 level; \*\*\*Significant path at the 0.001 level*



**Figure 3. Final Model with Standardized Paths**

*\*\*Significant path at the 0.01 level; \*\*\*Significant path at the 0.001 level*



**Figure 4. Resident Attitude – Behavioral Response Model**