TOURISM ENCOUNTERS IN THE CITY

SPATIAL AND SOCIAL INTERACTIONS BETWEEN MAINLAND CHINESE VISITORS AND RESIDENTS IN HONG KONG

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(met een samenvatting in het Nederlands)

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Xing Su
Utrecht, March 2020

CONTENTS

1

INTRODUCTION

1

1.1 BACKGROUND

Hong Kong is the major destination for an increasing number of visitors from mainland China, and their encounters with residents add to the complexity of Hong Kong–mainland China relations. China's current outbound tourism started in the early 1980s with travel to visit friends and relatives in Hong Kong and Macao. With the strong economic performance, increasing disposable income and the policy of 'Golden Week' public holidays (Nelson & Cathy, 2011; Yang et al., 2013), the number of outbound travel departures increased from 4.5 million in 2000 to 150 million in 2018 – an average annual growth of 16% (World Tourism Organization, 2019). Chinese outbound visitors have influenced tourism development trends worldwide, but particularly in Hong Kong, which gains most from this market growth, due to the geographical proximity and close economic and social relationships between Hong Kong and mainland China (Dai et al., 2016). In 2018, the total number of visitor arrivals in Hong Kong was about 65.1 million, of which 78% were visitor arrivals from mainland China (HKTB, 2019).

Urban tourism is a visibly significant factor in the economy, society and geography of many cities around the world (Ashworth, 2003; Edwards, Griffin & Hayllar, 2008). Greater global mobility and the information boom have led to higher levels of urban tourism demand in recent years (World Tourism Organization, 2019) and the rise of a new urban tourism phenomenon, namely a preference for authentic and local experiences of a city (Bock, 2015; Füller & Michael, 2014; Dirksmeier & Helbrecht, 2015). Urban tourism, on the positive side, is associated with the activation of the local economy, the regeneration of urban areas and the improvement of locals' lives; on the negative side, the large number of visitors often poses considerable challenges, such as overcrowding and congestion, the touristification of neighbourhoods and the urban landscape, and an increase in the price of goods, services, rents and housing (e.g. Ashworth & Page, 2011; Edwards et al., 2008; Łapko, 2014).

Many urban destinations are now suffering from overcrowding due to the excessive growth in visitor numbers, and they are facing a series of problems, including traffic congestion, pollution, parking problems, crime and the destruction of historical sites (e.g. Colomb & Novy, 2016; Milano, 2017; Seraphin, Sheeran & Pilato, 2018). Cities that are experiencing tourism-related overcrowding include Amsterdam, Paris, Venice, Berlin, Kyoto, Dubrovnik, Reykjavik and Hong Kong. Crowding is highly problematic in Hong Kong because the city is one of the world's most densely populated residential areas. With its high quality and variety of tourism attractions, Hong Kong is also one of the most popular destinations in Asia (Tsui et al., 2018). The combination of the

extremely high population density in the city and the high tourism appeal has further intensified the overcrowding in Hong Kong.

Hong Kong is a spatially dispersed urban destination with scattered tourism attractions. The city has two centres – on Hong Kong Island and Kowloon Island, respectively – and each has concentrations of popular shops, nightclubs and restaurants. Mainland Chinese visitors travel to Hong Kong for various purposes, including curiosity, kinship enhancement and visiting friends, sightseeing, and experiencing a different culture and lifestyle (Huang & Hsu, 2005). Shopping has become the prime travel motivation for mainland arrivals (Huang & Hsu, 2005; Lam & Hsu, 2004; Tsang, Tsai & Leung, 2011). Hong Kong has established a reputation as a shopping paradise for mainland Chinese visitors, offering duty-free shopping opportunities ranging from luxury goods to daily necessities. The appeal of shopping activities in Hong Kong includes low prices, high quality, product variety, good service, comfortable environment, convenient opening hours, bargain hunting opportunities, simple border crossing procedures and many retail agglomerations (Yeung and Yee, 2012). To increase the number of visitors from mainland China, the government and tourism board have promoted several preferential policies for mainland Chinese visitors, such as the Individual Visit Scheme (IVS).

Although the increasing number of mainland arrivals has stimulated Hong Kong's economy, many historical highlights, shopping malls, urban facilities and tourism attractions have become overcrowded with mainland Chinese visitors (e.g. Tsang, 2013; Wong & Zheng, 2016). However, many mainland Chinese visitors are exploring areas beyond the city centre to experience the cultural diversity and authenticity of a variety of neighbourhoods (Prendergast, Lam & Ki, 2016). This overcrowding has given rise to complaints from Hong Kong residents regarding its impacts on their daily lives, in the form of rising rents, congestion in public spaces and inappropriate behaviour by mainland Chinese visitors, and has also generated social tensions and conflicts between visitors and residents (e.g. Yeung & Leung, 2007; Prendergast et al., 2016).

Given the history of Hong Kong's return to China in 1997, there are strong ties between Hong Kong and mainland China, but the relationship between Hong Kong people and mainland Chinese has become increasingly complex (e.g. Siu, Lee & Leung, 2013; Ye, Zhang & Yuen, 2012a). The differences in terms of upbringing, education system, social development and socioeconomics can easily lead to misunderstandings and misconceptions between the two populations (e.g. Yeung & Leung, 2007). Over the last decade, increasing outbreaks of social tensions or conflicts have confirmed the differences between the two populations. The deep-seated reason may lie in people'

ethnic identity. The socio-political and colonial history of Hong Kong has created a strong identity among Hong Kong people, one that is distinct from that of the mainland Chinese (Mathews, 1997) and that is increasingly hybrid in order to avoid being just another Chinese city (Zhang, Decosta & McKercher, 2016). Under the constitutional principle of 'One Country, Two Systems', mainland China seems to emphasize the 'One Country' dimension, while Hong Kong is likely to focus on the 'Two Systems' element, which stresses its separateness and distinctiveness. Prior work suggests that Hong Kong residents' identification with a distinct Hong Kong has increased since the Handover (Veg, 2013), especially among young people (Zhang et al., 2016).

Given the complex and long-term relationship between mainland Chinese and Hong Kong people, we found it essential to study what forms of encounters are occurring between mainland Chinese visitors and residents in Hong Kong and what impacts these encounters have on their attitudes and mutual understanding. To do so, we first needed to identify the places of potential encounters, investigate the intensity and quality of the interactions during these encounters, and further understand the impacts on the attitudes and mutual understanding of mainland Chinese visitors and Hong Kong residents.

1.2 SPATIAL AND SOCIAL INTERACTIONS BETWEEN VISITORS AND RESIDENTS

Smith (1989) defined the two parties in tourism encounters as 'hosts' and 'guests'. *Host and Guest* (Smith, 1989) indicated that the distinction and difference between residents and visitors also provides a chance for mutual understanding through closer encounters. Such tourism encounters have two dimensions, namely spatial and social. The spatial interactions provide a necessary condition – in the sense of the actual meeting places – for social interactions. In other words, social interactions should not be analysed divorced from their spatial context.

Today, tourism takes place in and across a large variety of spaces within cities, such as historic urban cores, theme parks and museums, as well as local neighbourhoods, shopping malls and markets (Gospodini, 2001). Visitors make use of various city facilities and services, including transport and accommodation, that are not provided for visitors exclusively (Ashworth, 2012). Residents living in the city also make use of the city's resources, for example shops, restaurants, public transport and museums. Visitors and residents increasingly share and compete for the use of the same spaces

and facilities within cities (Pearce, 2001), which can be measured by comparing their spatio-temporal behaviour patterns in cities. Little attention has been paid to integrating the spatio-temporal behaviour patterns of visitors and residents to explore where and when encounters between the two groups potentially occur. Analysing and comparing the spatio-temporal behaviour patterns provides indications for where and when visitors and residents may have encounters, potentially creating competition for urban space between both groups of users and concomitant processes of crowding out and avoidance, as well as more positive and pleasurable encounters.

City visitors are often categorized into 'day trippers' and 'tourists' based on their length of stay in the destination (Girardin et al., 2007), with day trippers recognized as generating less economic benefit for cities and their residents than tourists. Hong Kong currently attracts more day trippers than tourists from mainland China. This large group is considered to have strained the carrying capacity of the city and caused tensions with the local community (Wong & Zheng, 2016). As indicated in Russo's (2002) 'vicious cycle model', an important part of this process is that increasing numbers of day trippers concentrate in the historical cores of cities, making these areas less appealing to tourists due to overcrowding and product standardization. Tourists disperse more towards other, more peripheral areas of interest beyond the city centre. However, day trippers' and tourists' behaviours are often blurred, which makes it difficult to differentiate between the two groups. Previous studies mainly focused on comparing day trippers' and tourists' economic impacts, socio-demographic characteristics, travel motivation, etc., but few analysed and compared the spatio-temporal behaviours of the two groups.

Day trippers and tourists may interact with residents in different parts of the city. Because of the limited time-budget of day trippers, these visitors tend to stay close to the border. In the case of Hong Kong, visitors from the city just across the border – Shenzhen – have an advantage in terms of geographical location and visa policy compared to visitors from the rest of mainland China. Generally speaking, the subgroups of day trippers and tourists – from Shenzhen and the rest of mainland China – and Hong Kong residents usually have their own particular potential encounter locations in the city. Taking the importance and complexity of the border context into account allows us to understand the potential specificities of border-related mobility and shopping.

A mapping of visitors' and residents' spatio-temporal distributions in the city provides the foundation for exploring where and when potential social interactions take place

and in what forms. Urban destinations usually provide a variety of geographical contexts that have tourism appeal, and these provide many opportunities for social interactions between visitors and residents. Differences between urban settings may affect the actual interaction itself (Reisinger & Turner, 2003). A typical urban setting for social interactions between visitors and residents is the city centre. The city centre area is generally understood as being frequently visited by both visitors and residents, resulting in intensive and often troublesome interactions (e.g. Kotus, Rzeszewski & Ewertowski, 2015). With a large and increasing number of visitors flocking in, the city centre may become congested and the goods and services standardized, weakening the tourism experience. As a consequence, visitor activities may extend beyond the city centre and into more peripheral sites in the city, or even further, into the suburbs and surrounding towns (Russo, 2002; Popp, 2012). Suburban areas often offer fewer opportunities for visitors to encounter local residents other than those residents who provide services for them, leading to relatively fewer interactions with residents (e.g. Prentice, Witt & Wydenbach, 1994; Su, Long, Wall, & Jin, 2016). New urban tourism areas are often located on the edge of or close to the historic centre (Maitland & Newman, 2004). Several case studies suggest that new urban tourism areas facilitate more and better interactions for visitors, but not for residents (e.g. Maitland, 2010; Dai et al., 2017). However, few studies have attempted to make a systematic analysis of the geographical contexts of social interactions between visitors and residents by comparing different urban settings within a city and taking the potential asymmetry of tourism encounters into account. In fact, social interactions between visitors and residents in cities are not homogenous in nature, and the different urban settings should be taken into account to acknowledge their contextuality as well as to develop a better understanding of the heterogeneity of the interactive processes taking place.

Apart from urban settings, social interaction itself tends to be influenced by visitors' and residents' predispositions, such as stereotypes, prejudice, bias or, more generally, social distance. Social distance may be evoked by many factors, such as education, historical events, internet sources, social media and learning from others (Celik, 2019). For mainland Chinese and Hong Kong people, social distance is a deeply rooted social attitude, one that is often negative and seems to be relatively stable and not easy to change, which was demonstrated in several studies (e.g. Fan et al., 2017; Siu, Lee & Leung, 2013; Prendergast et al., 2016). Social distance may have important implications for social interactions between visitors and residents. Previous studies have suggested that a low degree of social distance increases the tolerance of or intimacy towards others, whereas a high degree of social distance might limit interactions (Woosnam & Lee, 2011; Yilmaz and Tasci, 2015). However, the effects of social distance on social

interactions between visitors and residents from the visitors' perspective and the residents' perspective may be asymmetrical. As a consequence, both urban settings and social distance shape the social interactions between visitors and residents, which brings about further impacts on both visitors and residents.

Social interactions between visitors and residents are habitually assumed to be infrequent, superficial and inconsequential (Pearce, 1998). However, heavy tourism concentration in a destination often leads to residents holding negative views of visitors (Chen, Hsu & Li, 2018), and even to hostile conflicts that discourage repeat visits and undermine sustainable development (Siu, Lee & Leung, 2013). Social contact theory postulates that social contacts lead to a better understanding between or positive attitudes towards the parties involved only under favourable conditions (Allport, 1954). Most previous studies (e.g. Bruner, 1991; Carneiro et al., 2019; Fan et al., 2017; Su et al., 2015; Pizam et al., 2000) suggest that social interaction influences visitors' and residents' attitudes towards each other. For instance, a higher intensity of social interaction leads to visitors having more positive attitudes towards residents (Choo & Petrick, 2014; Pizam et al., 2000). Residents have profound changes of attitude after repeated contacts with visitors (Bruner, 1991). Fan et al. (2017) suggested that interactions in a favourable condition also result in a positive relationship as outcome. Similarly, such interactions are likely to contribute to a greater mutual understanding between visitors and residents (Tomljenovic, 2010). Social interactions of different intensities and qualities contribute to mutual understanding in different ways (e.g. Andereck et al., 2005; Fan et al., 2017; Pizam et al., 2000; Sharpley, 2014). However, social interactions between visitors and residents in urban destinations are determined by diverse urban settings and the initial attitudes of visitors and residents. Thus, the impacts of social interactions on attitude and mutual understanding can be expected to be affected by both the urban setting as geographical context and social distance as an individual's deeply rooted social attitude.

1.3 RESEARCH OBJECTIVE AND QUESTIONS

1.3.1 RESEARCH OBJECTIVE

The aim of the research underlying this thesis was to identify the intensity and quality of tourism encounters between mainland Chinese visitors and residents in a variety of geographical contexts in Hong Kong, and to assess the impacts of these encounters on the attitudes and mutual understanding of mainland Chinese visitors and Hong Kong residents.

1.3.2 RESEARCH QUESTIONS

To achieve this objective, we developed a set of research questions. To find out the potential locations of spatial interactions between mainland Chinese visitors and residents in Hong Kong, we started by analysing and comparing the spatio-temporal behaviour patterns of mainland Chinese visitors and Hong Kong residents based on Weibo check-in data (Research question 1), and then distinguished subgroups of mainland Chinese visitors according to their origins and length of stay in Hong Kong for an analysis and comparison of the spatio-temporal behaviour patterns of day trippers and tourists from Shenzhen and the rest of mainland China (Research question 2). On the basis of the results of the first two studies on potential locations of spatial interactions, combined with two current trends that are counterbalancing overcrowding in the city centre, we selected three urban settings – namely the city centre (Central), a suburban setting (Sha Tin) and a new urban tourism setting (Mong Kok) – as study areas for the subsequent three studies on social interactions between mainland Chinese visitors and residents of Hong Kong. First, we compared social interactions between visitors and residents in the three urban settings from both the visitors' perspective and the residents' perspective (Research question 3). Second, we investigated the extent to which different urban settings shape visitors' attitudes towards social interactions with residents, and then tested two competing hypotheses explaining the variation in the attitudes (Research question 4). Third, we investigated the extent to which social distance affects the mutual understanding between visitors and residents through social interactions (Research question 5).

Research question #1:

The large and increasing number of visitors, and the impacts of their activities on residents' everyday lives, makes it necessary to map visitor space usage at various times in the city in order to explore where and when encounters happen. Growing academic attention has been paid to this topic, but most studies focused only on visitors' spatial distributions, their movement patterns and the factors influencing their spatio-temporal behaviours within the urban destination (e.g. Bujosa, Riera & Pons, 2015; Lau & McKercher, 2006; Zoltan & McKercher, 2014). Comparing and combining the patterns of spatio-temporal behaviours of both visitors and residents in one study can identify the areas of potential encounters between both groups, namely by finding overlaps in where and when both visitors and residents concentrate and generate hotspots in the city. Moreover, looking at the changes in the spatio-temporal behaviour patterns of visitors and residents may indicate the extent in which problems in terms of crowding, congestion and conflict are increasing or decreasing in places over time and potentially increasing and developing at other places across the city.

The second chapter of this thesis addresses the gap by investigating the following research question:

> *What are the similarities and differences in the spatial and temporal distribution between mainland Chinese visitors and residents in Hong Kong, and to what extent do their activities overlap in urban space and change over time as an indication of potential encounters?*

Research question #2:

The spatial and temporal concentration of different types of visitors becomes a problem when it has negative effects on residents' and visitors' wellbeing and quality of life (Urry & Larsen, 2011). As mentioned, city visitors are often categorized into day trippers and tourists based on their length of stay in urban destinations. Day trippers are recognized as generating less economic benefit, but higher social costs related to excessive visitor demand and carrying capacity problems compared with tourists. However, studies on day trippers are relatively rare because it is difficult to obtain statistical information on this particular type of city visitor. So far, little attention has been paid to analysing and comparing aggregate patterns in terms of the spatial concentration and dispersion of tourists and day trippers across an entire city. Such insights are crucial for developing an understanding of the spatial and temporal processes behind tourism-induced crowding at the city scale. Moreover, in the case of Hong Kong, the day tripper issue is often related to cross-border travel. Considering the importance and complexity of the border context, day trippers and tourists can be categorized into subgroups of people who live near the border and those who live further away. Based on these considerations, the third chapter of this thesis addresses the following research question:

> *To what extent are the spatial and temporal distributions different among four types of mainland Chinese visitors – namely day trippers and tourists from Shenzhen and from the rest of mainland China – in Hong Kong?*

Research question #3:

Based on the first two studies on the spatial interactions between mainland Chinese visitors and residents in Hong Kong, it is acknowledged that different types of city users (e.g. day trippers, tourists and residents) encounter each other in particular places within the city. Moreover, these places of tourism encounters seem to be heterogeneous. Specifically, the large influx of visitors from mainland China has led to overcrowding particularly in Hong Kong's city centre. Two trends to some extent counterbalance the

crowding phenomenon. One is that visitors are extending their activities beyond the city centre towards more peripheral sites. The second trend is the rise of new urban tourism, referring to visitors increasingly seeking the true identity of cities and authentic experiences occurring in mundane places like cafes, markets and streets. The three types of urban settings mentioned above – that is, a city centre, a suburban area and a new urban tourism area – undergo various social and physical changes and involve different social interactions between visitors and residents. However, little attention has been paid to examining and comparing the intensity and quality of social interactions between visitors and residents in different urban settings. The fourth chapter of this thesis addresses this gap by investigating the following research question:

> *What are the differences in the intensity and quality of social interactions between three different urban settings – namely a city centre setting, a suburban setting and a new urban tourism setting – within Hong Kong from the perspective of visitors and residents?*

Research question #4:

The three urban settings identified above may attract different types of visitors and provide these visitors with different social interactions with residents, further influencing visitors' attitudes towards social interactions with residents. Previous studies suggest two competing hypotheses to explain the geographic variation in visitors' attitudes towards social interactions with residents. The first is that different urban settings provide different types of social interactions between visitors and residents, which may further influence visitors' attitudes towards social interactions with residents, being a matter of a 'causation'. The second hypothesis is that diverse urban settings attract different types of visitors with particular characteristics, who may hold different attitudes towards social interactions with residents, being a matter of 'selection'. By testing the two hypotheses in explaining why mainland Chinese visitors' attitudes towards social interactions with Hong Kong residents are more positive in some urban settings than others, the fifth chapter focuses on the following research question:

> *To what extent do different urban settings shape visitors' attitudes towards social interactions with residents, and should this be explained by the type of social interaction the settings offer or the type of visitors they attract?*

Research question #5:

Tourism brings visitors and residents together in social interactions, and the question is whether such interactions bring about a better mutual understanding between the

two groups of city users. Mainland Chinese visitors and Hong Kong residents have strong historical ties as well as large cultural differences. Differences in cultural and educational systems, economic structures and colonial history may result in social distance between visitors from mainland China and residents of Hong Kong. Social distance between the groups may influence the intensity and quality of social interactions, which in turn might have an impact on their mutual understanding. The sixth chapter of this thesis therefore addresses the following research question:

> *What is the impact of social interactions on mutual understanding between mainland Chinese visitors and Hong Kong residents, and to what extent does this impact depend on social distance?*

1.4 STUDY AREA: CENTRAL, SHA TIN AND MONG KOK IN HONG KONG

Based on the findings concerning the spatio-temporal distributions of tourists, day trippers and residents in Hong Kong at large presented in Chapters 1 and 2, we selected three urban settings with different characteristics: Central as a city centre setting, Sha Tin as a suburban setting and Mong Kok as a new urban tourism setting (Figure 1.1).

Central is located in the downtown core and contains several clusters of commercial buildings and office buildings together with a variety of tourism attractions and related facilities, including the Peak Tram, the Mid-Level escalator and the Central Ferry, which provides access to the outlying islands and Macau. Central targets high-end shoppers and has many shopping malls for luxury shopping, relaxation and entertainment. Central is also home to a large number of residents, and many people commute there for work on a daily basis.

Sha Tin has rapidly developed into a well-planned new town outside the downtown zone, comprising residential quarters, shopping centres and a variety of educational, cultural, recreational and sports facilities. Sha Tin provides basic goods and services for daily needs as well as products from international brands in a medium price range, but is increasingly shifting towards luxury shopping services catering for visitors. It is well-connected to the Shenzhen border and has become a hotspot for mainland visitors, including for cross-border parallel trading activities.

Mong Kok is well-known and popular for its many historic buildings and themed street

markets, for instance, Goldfish market on Tung Choi Street and Bird Garden on Yuen Po Street. Mong Kok mainly offers relatively cheap products in street markets, but also more formal places for shopping, such as Langham Place. Mong Kok often appears in documentaries about Hong Kong and is considered representative of Hong Kong's culture and society. Many visitors see Mong Kok as the true, authentic identity of Hong Kong.

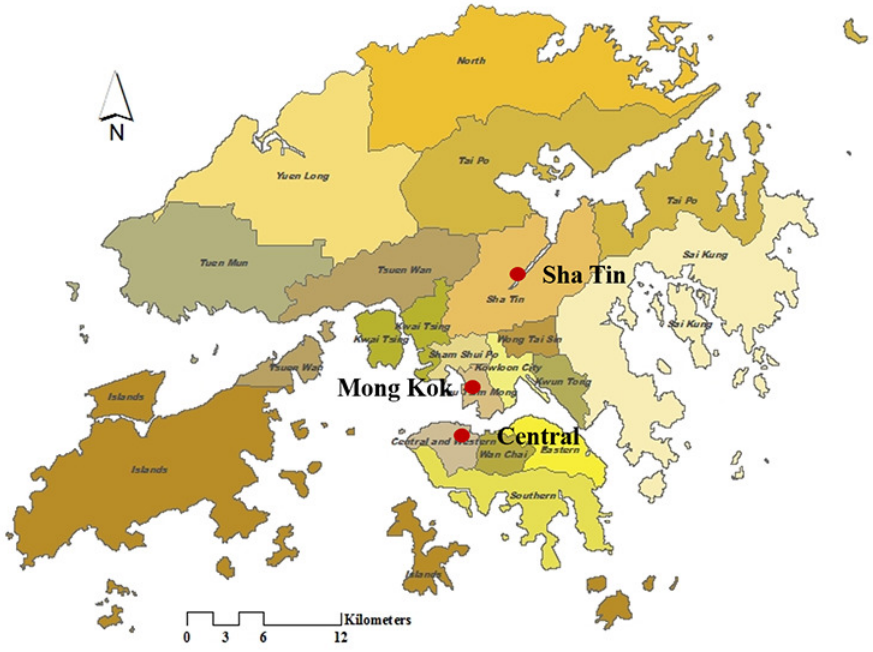

Figure 1.1 Hong Kong's administrative map and locations of the studied three urban settings (Central, Sha Tin and Mong Kok)

1.5 METHODOLOGICAL OVERVIEW

The research methods used in the research underlying this thesis, as well as their advantages and limitations, are discussed in more detail in the empirical chapters (Chapters 2–6). This section provides a brief overview of the methods used in the spatial and social interaction analyses that comprised the core element of the empirical research presented in this thesis.

1.5.1 DATA SOURCES

The studies presented in Chapters 2 and 3 provide an overview of potential locations for spatial interactions between mainland Chinese visitors and local residents in Hong Kong (Chapter 2) and also look into the differences and similarities between subgroups of visitors in terms of their spatio-temporal distributions in the city (Chapter 3). These first two studies made use of Weibo geotagged check-in data. Building on the results of Chapters 2 and 3, three urban settings – Central, Sha Tin and Mong Kok – were selected as areas for collecting data in June 2017 through an on-site survey questionnaire for Hong Kong residents and an online survey questionnaire for visitors from mainland China. Chapters 4, 5 and 6 discuss the data derived from these survey questionnaires.

The first dataset used in the present research was based on Weibo check-ins. Weibo is one of the largest Chinese social media services and the most popular online social networking website in China. Weibo users can share their location through the platform's 'check-in' function, which is a geotagged location service. The Weibo platform provides a public application programming interface (API) for app developers to search and download the check-in messages. People in mainland China and elsewhere, including Hong Kong, can use Weibo, whereas people in mainland China cannot officially use other social network platforms such as Facebook and Twitter. We called open APIs on the Weibo platform to obtain user attribute information and the locations of check-ins in 2012–16. The process of data acquisition was as follows. First, we used a web crawler written in Python to obtain all POIs (points of interest) in Hong Kong. Second, we called two APIs on the Weibo open platform to obtain information about places and users. One API ('place/nearby/pois') was used to obtain information about the places visited, such as 'poiid'. We then called another API ('place/poi_timeline') to obtain data on users, such as ID, location, gender, province and city. Third, we removed the check-ins that had missing coordinates or user attributes, as well as those outside Hong Kong. This process led to a total of 1,542,535 check-ins. We then removed all users who originated from Macao, Taiwan and overseas, leaving 1,539,558 check-ins in the MySQL database.

The second dataset came from the survey questionnaire for mainland Chinese visitors and that for residents of Hong Kong. A stratified sampling approach was used to divide these visitors and residents into three groups, respectively, based on whether they visited or lived in one of the three urban settings under scrutiny. Survey respondents were then selected randomly for each group. An online survey was conducted with mainland Chinese visitors who had visited Central, Sha Tin or Mong Kok. The online

survey was conducted in Mandarin by wjx.cn survey company. The research sample was diverse in terms of gender, age, job status and origin. The acceptance rate of the online survey was around 70%. Altogether, 416 valid visitor questionnaires were collected, namely 130 in Central, 121 in Sha Tin and 165 in Mong Kok. An on-site survey was conducted (in Cantonese) with residents in Central, Sha Tin or Mong Kok. Residents were approached for participation in the research at these particular sites through a random intercept approach. This resulted in an average acceptance rate of roughly 14%. Altogether, 315 valid resident questionnaires were collected, namely 107 in Central, 96 in Sha Tin and 112 in Mong Kok. The survey instrument for both mainland Chinese visitors and residents of Hong Kong had four sections, that is, respondents' characteristics, social interaction, cross-cultural understanding and social distance. The questions in the visitors' questionnaire and the residents' questionnaire were designed such that they allowed a comparison of the two groups in terms of social interaction, cross-cultural understanding and social distance. Respondents' characteristics include sociodemographic information (age, gender, education level and monthly income) and other specific characteristics for visitors and residents, respectively.

1.5.2 METHODS OF ANALYSING SPATIAL INTERACTIONS

To analyse and compare the spatio-temporal behaviours of mainland Chinese visitors and Hong Kong residents (Chapter 2), we first differentiated the two groups from each other by applying a process of 'double filtration', based on the time interval between the first and the last time stamp of Weibo check-ins and the place of registration of Weibo users. This resulted in the identification of check-ins from mainland Chinese visitors and Hong Kong residents. To analyse the temporal patterns of visitors' and residents' activities, we charted the averages of the two groups' check-in frequencies on a timeline, that is, per year, season, month and day of the week. To analyse the spatial patterns and general spatio-temporal trends in visitors' and residents' behaviour patterns, we plotted and compared the density distributions of check-ins in Hong Kong for five years (i.e. 2012–16) through the combination of kernel density analysis and incremental mean threshold approach described above.

On the basis of the visitor database discussed in Chapter 2, we applied two algorithms to reconstruct visits and classify the visitors into day trippers and tourists (Chapter 3). We furthermore divided them into four groups based on the place of registration – day trippers and tourists from Shenzhen and from the rest of mainland China, respectively. In order to obtain comparable sample sizes for the four subgroups of visitors, we randomly selected a sample of a similar size for each of the four groups. We then applied standard distance and nearest neighbour analysis to test for evidence of dispersion

and clustering of check-in activities. The nearest neighbour hierarchical clustering identified spatial clusters for the four subgroups of visitors. Finally, we explored the temporal patterns for the four subgroups at different temporal granularities, namely 24 hours a day for seven consecutive days.

1.5.3 METHODS OF ANALYSING SOCIAL INTERACTIONS

Prior to data analysis, missing values in the final data sample were replaced through single imputation. To investigate the possible differences in social interactions among the three urban settings (Chapter 4), we first applied factor analysis to explore the underlying dimensions of social interactions between mainland Chinese visitors and residents in Hong Kong. After that, we examined the mainland Chinese visitors' social interactions with Hong Kong residents, then examined Hong Kong residents' social interactions with mainland Chinese visitors and tested for asymmetry of social interactions between visitors and residents in different urban settings.

Factor analysis was then applied (Chapter 5) to identify the factor structure of social interactions with residents for mainland Chinese visitors, that is, co-presence, focused interaction and quality of interaction, which is consistent with Chapter 4. Kruskal–Wallis tests and cross-tabulations were then used to analyse the correlation among urban settings, social interactions, visitor characteristics and the attitudes of mainland Chinese visitors towards social interactions with residents. Lastly, a mediation regression model was applied to test the two hypothetical processes and mechanisms. The investigation focused on whether an independent variable (i.e. urban setting) might elicit a dependent variable (i.e. visitor attitude towards social interactions with residents) indirectly through the mediator, namely social interactions between visitors and residents (causation) or visitor characteristics (selection).

To investigate the factor structure underlying social interactions and mutual understanding between mainland Chinese visitors and residents, factor analysis was applied to both visitors and residents with three dimensions for social interactions (i.e. co-presence, focused interaction and quality of interaction) and one dimension for mutual understanding (Chapter 6). Six linear regressions were then conducted to examine the effects of social distance on co-presence, focused interaction and quality of interaction. Lastly, four linear regression models were applied to visitor model and resident model, respectively, to investigate the impact of social interactions on mutual understanding and the extent to which the impact depends on social distance.

1.6 THESIS OUTLINE

This thesis consists of seven chapters, the first being this introduction. Chapters 2–6 are based on papers that have been published in, accepted with revisions or submitted to peer-reviewed journals. The structure of this thesis is as follows (Figure 1.2).

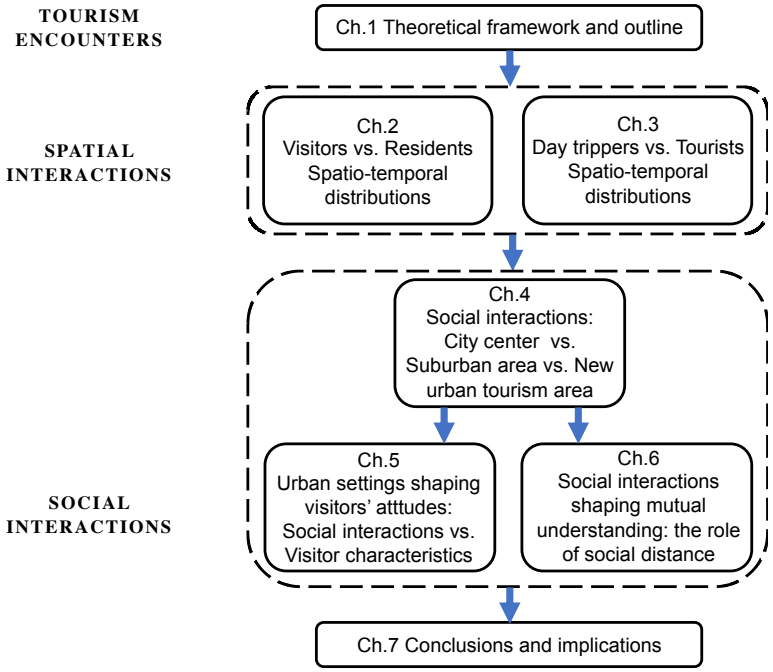

Figure 1.2 Thesis overview

Chapter 2 provides an overview of potential locations for spatial interactions between mainland Chinese visitors and residents in Hong Kong. More specifically, this chapter is about analysing and comparing the spatio-temporal behavioural distributions of mainland Chinese visitors and residents in Hong Kong using Weibo check-in data over a period of five years (2012–16).

Chapter 3 looks at different subgroups of mainland Chinese visitors according to their length of stay and origin and discusses the spatio-temporal concentration and dispersion of day trippers and tourists from Shenzhen as well as from the rest of mainland China.

Chapter 4 focuses on social interactions between mainland Chinese visitors and residents in the three urban settings (city centre, a suburban setting and a new urban tourism setting) on the basis of results from the analysis of spatial interactions between mainland Chinese visitors and residents in Hong Kong.

Chapter 5 looks further into the effects of the different urban settings on the attitudes of visitors towards social interactions with residents. By comparing the three urban settings, the chapter tests two competing hypotheses (causation and selection) why the attitudes of visitors towards the social interactions with residents are more positive in one urban setting than another.

Chapter 6 discusses whether the improvement of mutual understanding through social interactions between visitors and residents depends on the social distance between mainland Chinese visitors and residents of Hong Kong. In particular, the chapter addresses three questions: Does social interaction always contribute to a better understanding? Is the mechanism under the above process the same for mainland Chinese visitors and Hong Kong residents? And does the impact of social interaction between visitors and residents on mutual understanding depend on the social distance?

Chapter 7 summarizes the main findings of spatial and social interactions between mainland Chinese visitors and local residents in Hong Kong, assesses the implications of these key findings in light of previous studies, and outlines theoretical and practical implications and recommendations for further research.

1

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2

ANALYSING TRENDS IN THE SPATIO-TEMPORAL BEHAVIOUR PATTERNS OF MAINLAND CHINESE VISITORS AND RESIDENTS IN HONG KONG BASED ON WEIBO DATA

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ABSTRACT

Visitors and residents of a city interact at various locations at various times. Previous studies paid little attention to comparing the spatio-temporal behaviours of visitors and residents from a long-term perspective. The aim of the present study was to identify and compare the spatio-temporal behaviours of mainland Chinese visitors and residents in Hong Kong over a period of five years. Their behaviours were compared by means of kernel density analysis and temporal statistical analysis, using Weibo geotagged check-in data and geographic information systems (GIS). The results show that the spatial behaviours of mainland Chinese visitors (MCV) are more concentrated than those of residents, especially in central urban areas, whereas residents also visit suburban and exurban areas. Simultaneously, MCVs' temporal behaviours varied significantly, whereas those of residents were relatively stable. From a long-term perspective, we found that in the central urban area, MCVs' preferences for locations tended to be relatively fixed, but their activity in local neighbourhoods and residential quarters decreased. However, residents' interest in typical tourism highlights decreased reflecting potential strategies of avoidance in those areas whereas their activities in other tourism hotspots were more stable. These findings can be applied in urban planning, destination management and sustainable development.

Keywords: urban tourism; spatio-temporal behaviour; mainland Chinese visitors; Hong Kong residents; trend analysis; Weibo data

2.1 INTRODUCTION

Urban tourism is associated with activating the local economy and urban vitality, as well as renewing the urban morphology and cultural development (Ashworth & Page, 2011; Łapko, 2014). However, it may lead to several challenges, such as in terms of the sustainability of social interaction between residents and visitors (Edwards et al., 2008). Excessive visitor activities can also diminish the attractiveness of urban areas for both residents and visitors (Kotus et al., 2015). When the presence and behaviours of visitors exceed the level of tolerance of residents, several problems may ensue (O'Reilly, 1986). The residents of several cities tend to blame visitors for such annoyances as noise, dirt and crowded bars, cafes or public transport (Füller & Michel, 2014). The implications of large and increasing numbers of visitors and their activities on urban everyday life stress the necessity to map visitor space usage at various times in the city in order to explore where and when encounters happen.

The analysis of visitor spatio-temporal behaviour in urban destinations involves paying particular attention to their interactions with, trajectories and movements through as well as practices performed in urban spaces within the urban destination – with particular attention for which spaces are being visited at what times (Lew, Hall & Williams, 2004; Md Khairi et al., 2019). Growing academic attention has been paid to this topic, but most studies have focused on visitors' spatial distributions, movement patterns and the factors influencing their spatio-temporal behaviours within the urban destination (e.g. Bujosa, Riera & Pons, 2015; Lau & McKercher, 2006; Zoltan & McKercher, 2014). Comparing and combining the patterns of spatio-temporal behaviours of both visitors and residents in one study can actually identify the areas of potential encounters between both groups – i.e. by finding overlaps between where and when both visitors and residents concentrate and generate hotspots in the city. In this context, Paldino et al. (2015) indicated that knowing the behavioural characteristics in various parts of a city may lead to a greater understanding of spatial activity patterns of visitors' and residents' in cities. Better understanding the spatio-temporal behaviors of visitors, and residents alike, provides important insights to make services and attractions, the transport system and the marketing strategy of cities more in line with their actual needs and wants (Shoval & Isaacson, 2007).

Moreover, studies comparing the spatio-temporal behaviour patterns between visitors and residents have focused on their spatio-temporal behaviours in relatively short periods (García-Palomares, Gutierrez & Minguez, 2015; Kádár & Gede, 2013; Kotus, Rzeszewski & Ewertowski, 2015; Li, Zhou & Wang, 2018; Paldino et al., 2015). Little

attention has been paid to spatio-temporal behaviours from a long-term perspective. Short-term visitor flow studies may already pinpoint several problems related to crowding, congestion and conflicts at particular urban places within specific and limited time periods. However, taking a long-term perspective on spatio-temporal behaviour patterns of visitors as well as residents can reveal on-going trends – and can even be used to predict future scenarios – in terms of tourism-related in a city. The reason for this is that these long-term trends provide indications for where and when visitor and residents have encounters, potentially changing competition for urban space between both groups of users and evolving processes of crowding out and avoidance. Looking at and relating trends in the spatio-temporal behaviour patterns of visitors and residents may indicate the extent in which problems in terms of crowding, congestion and conflict are increasing or decreasing at places on the 'beaten track' over time and potentially rising and developing at other places across the city. This will provide us with potential insights that are important for achieving a more sustainable development of cities – and the tourism planners, marketeers and managers involved. This is all the more pertinent these days with increasing numbers of visitors flocking into cities, Hong Kong included.

The aims of the present research were: 1) to explore the temporal behaviour patterns of MCVs and Hong Kong residents in different time periods; 2) to test and compare whether there is a spatial concentration of MCVs' and residents' activities in Hong Kong; and 3) to identify the long-term trend in MCVs' and Hong Kong residents' spatio-temporal behaviour patterns, and which parts of the city are affected by their activities. The research was carried out in Hong Kong, which is a typical city within the context of urban tourism in China. Mainland arrivals are Hong Kong's largest visitor source market. However, the related behavioural data of this largest group of visitors in Hong Kong are still limited and lacking, as also noticed by other authors (e.g. Hui & McKercher, 2001; McKercher et al., 2012). While several studies (e.g. Wang et al., 2016; Zhen et al., 2017) have used the Weibo platform - i.e. one of the most popular online social microblogging and networking platforms in China – to analyse Chinese visitors' spatio-temporal behaviours in mainland Chinese cities, this study attempted to use Weibo check-in data to differentiate mainland Chinese visitors (MCVs) and residents in Hong Kong and analyse their spatio-temporal behaviour patterns in this city.

This paper is structured as follows. The following section presents a literature review of studies on visitors' and residents' spatio-temporal behaviour patterns. The third section clarifies the research design for this analysis, including data collection and methodology. The results are discussed in the fourth section. The final two sections

present the conclusions and a discussion, which includes the limitations of this study, implications for tourism planning, marketing and management as well as possible future research directions.

2.2 LITERATURE REVIEW

2.2.1 DISTINCTION BETWEEN VISITORS AND RESIDENTS

Today, tourism takes place in and across a large variety of spaces within cities, such as historic urban cores, theme parks and museums as well as local neighbourhoods, shopping malls and markets (Gospodini, 2001). While being mobile at the intra-destination and intra-attraction but also inter-destination scales (e.g. Lau & McKercher, 2006; Vu et al., 2015; Zheng et al., 2017), visitors make use of various city facilities and services, including transport and accommodation, that are not provided for visitors exclusively (Ashworth, 2012). The city is multifunctional in nature and a large variety of users – including residents and visitors – are making use of its resources – including shops, restaurants, museums and monuments – for diverse reasons and purposes in often the same urban spaces (Burtenshaw et al., 1991; Ashworth & Page, 2011). Based on how the city is being used, it is highly complicated, and increasingly so, to make a distinction between visitors and residents as separate dichotomous categories (Ashworth, 1989; Hultman & Hall, 2012) and the same can be argued for making a distinction between the activity spaces of visitors and residents in contemporary cities (Judd, 2003). For example, visitors increasingly prefer to experience foreign cities 'off the beaten track' and seek for participating in daily activities in local neighbourhoods beyond the city centre, also facilitated by Airbnb. At the same time, residents aim to find and experience the unfamiliar and extraordinary when shopping for recreational motives in the city centre of their hometown, for instance (Wildish & Spierings, 2019).

Looking at the origin of users of the city, already hinted at in the examples above, is often used to still make a distinction between residents – i.e. living inside the city – and visitors – i.e. coming from outside the daily urban system (Ashworth & Turnbridge, 2000). Growing numbers of these 'outsiders' are considered to give rise to a variety of social tensions and conflicts in many urban contact zones in visitor destinations. Visitors even seems to push out residents in some urban areas with the latter applying strategies of avoidance in both time and space (Popp, 2012). Visitor and residents are not set apart (Ashworth, 2012) but increasingly share and compete for the use of the same spaces and facilities within cities (Pearce, 2001), which can be witnessed from analysing and comparing their spatio-temporal behaviour patterns in cities.

However, little empirical evidence has captured the differences between visitors' and residents' behaviour patterns in time and space from a long-term perspective. This is all the more pertinent in times of increasing mobility, when a large number of visitors flock into cities and create many opportunities for encounters between visitors and residents, as well as challenges in terms of congestion, crowding and potential conflicts in urban contact zones. Analyzing and comparing the spatio-temporal behaviour patterns and the long-term dynamics of visitors and residents is the foundation to explore when and where encounters between the two parties potentially occur in cities, and possible influences that would follow.

2.2.2 SPATIO-TEMPORAL BEHAVIOUR PATTERNS

For comparison of spatio-temporal behaviour patterns of visitors and residents, we will discuss both the spatial and temporal dimensions of their activities as performed in the city (Zhao, Forer & Harvey, 2008) – while paying particular attention to which place visitors and residents may interact with at which time (Lew, Hall & Williams, 2004).

According to Lew and McKercher (2004), urban visitors are distributed unevenly in time and space. More specifically, Ashworth and Page (2011) indicated that activity areas of visitors are limited because their individual space-time budgets are more severely restricted than those of residents, resulting in a distinctive, more concentrated usage of cities. A study by García-Palomares et al. (2015) confirmed the higher spatial concentration of visitors' activities as compared with residents' activities by analyzing visitor hotspots in eight European cities. Vu et al. (2015) added a Hong Kong perspective to this by identifying seven key areas of interest for inbound visitors, which were mostly concentrated in the downtown zone of the city. As such, popular attractions and access routes were frequently overcrowded and overexploited, whereas the others were mostly ignored (Shoval, 2008). Examining how visitors move around when in Hong Kong, Lau and McKercher (2006) revealed that the spatial activity pattern of repeated visitors was more dispersed than that of first-time visitors although still concentrated in the central urban areas.

While comparing the behaviour patterns of visitors and residents, Paldino et al. (2015) confirmed that visitors are more active in the central urban areas that have a city's landmarks (e.g. Times Square in New York), while residents are more active in spaces for socializing, such as parks, squares or sport facilities. In this context, Kotus et al. (2015) proposed a model under visitor influence to describe the urban areas where visitors and residents concentrate. According to the model, visitors mainly concentrate in central areas, while residents have taken control of such areas outside central parts

as recreation areas and historic neighbourhoods. So, while both visitors and residents visit a city's most representative sites, residents have a more extensive activity radius and spend time at sites rarely visited by visitors, outside the central area and on the periphery of the city (Kádár & Gede, 2013; García-Palomares et al., 2015), reflecting the relatively more dispersed spatial behaviour of residents compared to visitors.

In addition to the spatial dimension, the temporal dimension is also strongly embedded in visitors' and residents' behaviour patterns. The 'temporal behaviour' of visitors and residents is reflected in their temporal variation and length of stay at specific places in a city. To start with, urban visitors and their activities are not only distributed unevenly in space but also in time, according to Lew & McKercher (2004). Looking daily, weekly and holiday-related variations in particular, Li et al. (2011) confirmed the uneven distribution in time for activities of Chinese visitors in the town of Lijiang. These visitors appeared to be more active in specific time periods during the day – i.e. in the late morning and afternoon – as well as at night. In addition, they found that there were more visitors around on Sunday than on weekday and that the town was also a highly popular visitor destination during holidays in August. Liu & Shi (2019) confirmed the higher activity levels of visitors on weekends and holidays compared with working days for the city of Hangzhou. According to Liu et al. (2016), the temporal activity pattern of residents in the city was strongly regular at the collective level but may still differ substantially at the individual level due to different routines and schedules. For weekdays they found common activity peaks, including in the morning for travelling from a residential area towards a business area and back again in the evening as well as around noon in commercial areas for lunch. Moreover, Jia and Jiang (2012) found an important difference between weekdays and weekends with a high activity peak during the nights in the latter as opposed to the former. Interestingly, Birenboim et al. (2013) added – by studying visitors in a theme park setting – that the uneven temporal activity pattern of visitors was similar during low and high season and therefore rather stable and repeatable – regardless of factors including queues and weather. Considering the length of stay, Li et al. (2011) additionally indicated that most visitors stayed in the town of Lijiang for no more than two days. While visitors may often stay longer in larger towns or cities with more and more diverse visitor attractions and facilities, some may as well visit the same destination only for a couple of hours when on a day trip in a relatively close-by destination (Stetic, Simicevic & Stanic, 2011). Md Khairi et al. (2019) added that visitors spend most of their time during the limited stay in urban spaces where visitor highlights in terms of heritage and facilities are concentrated – areas in which residents spend much less time on a daily, weekly or yearly basis. In this context, the model proposed by Kotus et al. (2015) is of interest because it indicated

that residents during daily life in the city spent relatively more time outside the central areas of visitor destinations. The temporal behaviour pattern of visitors tends to be the outcome of short-term decisions related to the length of stay or purpose of the visit, whereas the temporal behaviour pattern of residents tends to stem from long-term decisions regarding, for example, career choice and selection of workplace and place of residence (Isaacson & Shoval, 2009).

2.2.3 MAPPING, MODELING AND PREDICTING

The methods and technologies that are often used to map, model and predict spatio-temporal behaviour patterns include trip diaries, questionnaire surveys, GPS logging mobile phone tracking, sequence alignment and Markov-based models (e.g. Grinberger, Shoval & McKercher, 2014; Raun, Ahas & Tiru, 2016; Shoval et al., 2015; Xia et al., 2009; 2011; Zheng et al., 2017). Nowadays, a growing number of studies use social media sources to analyse spatio-temporal behaviour, including geotagged photos such as on Flickr, Facebook messages, Foursquare check-ins and Weibo check-ins (e.g. Li et al., 2018; Liu & Shi, 2019; Vu et al., 2018; Wang et al., 2016; Yoo & Lee, 2015).

For the analysis of the spatio-temporal behaviour of visitors and residents, social media-based studies commonly apply two methods for differentiation purposes, related with the origin of users (Girardin et al., 2007; Gu et al., 2016; Hawelka et al., 2014; Kádár & Gede, 2013). The first method is based on the place of registration linked with the user ID. For instance, Gu et al. (2016) identified the origins of social media users (i.e. resident vs non-resident) based on the location selected during the process of registering a user ID. However, errors may occur when the location selected is not the real location of residence or when it changes and is not updated. The second method is to make use of how long a person remains at a location, which is then regarded as the criterion to determine whether messages or photos can be attributed to visitors or residents. Girardin et al. (2008) set a threshold of 30 days to differentiate residents from visitors, a criterion that has since been adopted by most studies (e.g. García-Palomares et al., 2015). Social media users were considered visitors if they were active in the urban area within the 30-day bandwidth; otherwise, they were categorized as residents (García-Palomares et al., 2015). However, errors may occur when visitors visit the same destination on a frequent basis or when people are daily commuters. In an attempt to reduce errors related with visitor–resident differentiation as much as possible, we made a combination of both methods discussed by applying a process of ‘double filtration’ – as will be explained next.

2.3 RESEARCH DESIGN

2.3.1 STUDY AREA: HONG KONG AS AN URBAN DESTINATION

Hong Kong consists of Hong Kong Island, Kowloon, the New Territories and some 262 outlying islands. It is a spatially dispersed urban destination with lots of scattered visitor attractions. There are two central cores, one on Hong Kong Island and the other in the Tsim Sha Tsui area of Kowloon – both with a concentration of well-known tourism highlights (Figure 2.1). However, visitors are also increasingly spreading to areas beyond outside the 'beaten track' to explore and experience the cultural diversity and authenticity of a variety of neighbourhoods, including Sha Tin and Tai Koo Shing (Prendergast et al., 2016). With its variety of high-quality visitor attractions, Hong Kong is one of the most popular destinations in Asia (e.g. Tsui et al., 2018). The total number of visitor arrivals reached about 65.1 million in 2018 with a growth of more than 11% compared to 2017. Hong Kong's top ten visitor source markets were mainland China, Taiwan, South Korea, Japan, United States, the Philippines, Singapore, Australia, United Kingdom and Thailand, which together accounted for over 92% of the total number of visitor arrivals. Visitor arrivals from mainland China, which is Hong Kong's largest visitor source market, reached 51.0 million in 2018 - making up for about 78% of the total arrivals in that year (HKTB Research 2019).

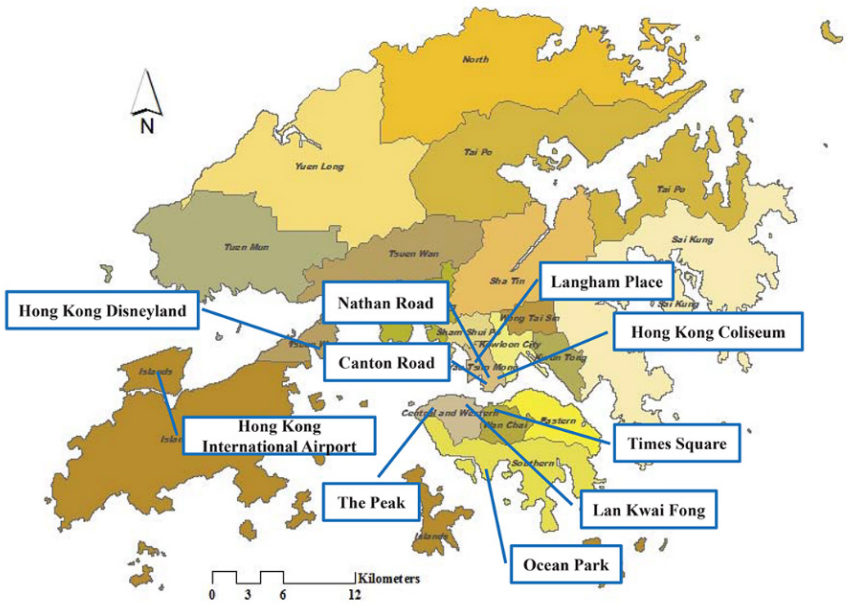

Figure 2.1 Hong Kong administrative map and main sites for visitors

2.3.2 WEIBO DATA COLLECTION AND VISITOR-RESIDENT DIFFERENTIATION

Weibo users can share their location through the platform's 'check-in' function, which is a geotagged location service. 'Check-in' means that users confirm or share their location on a social network website when they participate in activities at that location (Todd et al., 2008; Zhen et al., 2017). These geo-tagged records (check-ins) of millions of Weibo users can be a source of data for the analysis of human spatio-temporal behaviours, because Weibo provides a public application programming interface (API) for app developers to search and download the check-in messages (Wang et al., 2016; Zhang et al., 2016). Both people in mainland China and beyond, including in Hong Kong, can use Weibo whereas the former cannot officially use other social network platforms such as Facebook and Twitter. According to the Weibo Data Center (2019), the number of monthly active Weibo users in China reached 462 million in December 2018 – which is about a third of the entire population. In addition, a recent survey among Chinese of internet users aged 16-64 shows that the Weibo penetration is 31% in mainland China and 18% in Hong Kong (We Are Social, 2018). As such, Weibo provides an interesting opportunity to compare the spatio-temporal behaviour of MCVs and residents in Hong Kong based on the same data source. We called open APIs on the Weibo open platform to obtain user attribute information (e.g. place of registration and gender) and locations of check-ins from 2012 until 2016. We pre-processed the data by removing check-ins with missing coordinates or missing user attributes, and records of check-ins at locations outside Hong Kong. This process led to a total of 1,539,558 check-ins.

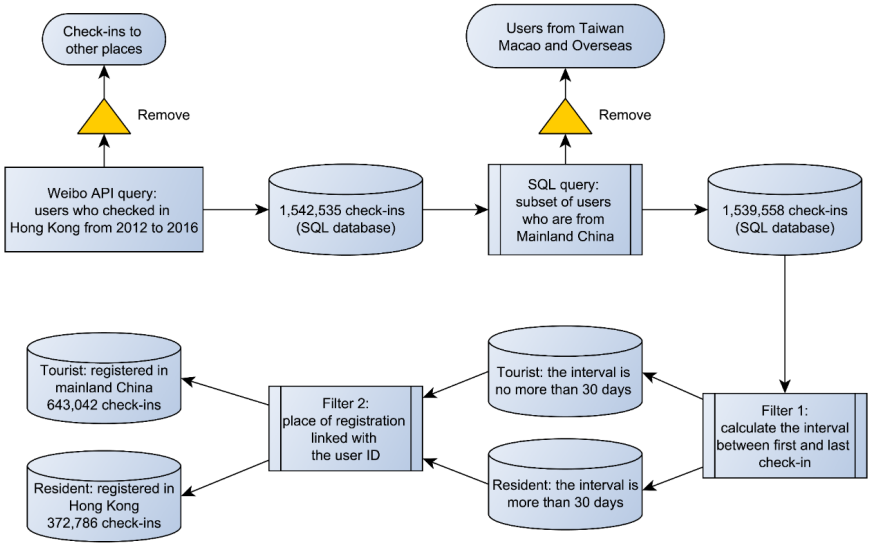

Figure 2.2 Process flow

For a more accurate differentiation between visitors and residents, we combined two filters related with the origin of Weibo users in Hong Kong – as figure 2.2 also shows. When applying filter 1, we calculated the interval between the first and the last time stamp of Weibo user check-ins in Hong Kong. If the interval was less than 30 days, we provisionally labelled the Weibo user as a visitor; otherwise, the user was provisionally labelled as a resident. After that, we additionally applied filter 2. We further filtered the dataset by taking the place of registration linked with the user ID into account. If the time interval was more than 30 days and the user ID was registered in Hong Kong, we regarded the Weibo user as a Hong Kong resident – and the users under consideration with an ID registered outside Hong Kong were removed from the dataset. If the time interval was no more than 30 days and the user ID was registered in mainland China, we regarded the Weibo user as a MCV – and the users under consideration with an ID registered outside mainland China were removed from the dataset. This resulted in the identification of 372,786 residents' check-ins and 643,042 MCVs' check-ins (Table 2.1).

Table 2.1 User Segmentation based on ID registration place and check-in duration in Hong Kong

ID registration place	Record duration	User type definition	Number of check-ins
Hong Kong	> 30 days	Resident	372,786
Outside of Hong Kong	≤ 30 days	Visitor	643,042

2.3.3 WEIBO DATA AND SPATIAL-TEMPORAL ANALYSIS

For the analysis of the temporal patterns of MCVs' and residents' activities, different time intervals were explored. We charted the averages of MCVs' and residents' check-in frequencies on a timeline, that is, per year, season, month and day of the week. To differentiate between the four seasons, we made use of the 'weather divisions' definition in China, which is based on the solar calendar. Specifically, spring refers to March–May, summer to June–August, autumn to September–November and winter to December–February. For the analysis of weekly patterns, we also included the 'Golden Week' holidays in our study, and in particular the Chinese Lunar New Year and the National Day.

To analyse spatial patterns in user activities, we plotted and compared the density distributions of check-ins by residents and MCVs in the Hong Kong area for all five years (i.e. 2012–16) together. Kernel density analysis was used to make heat maps examining the spatial distribution of check-ins. The kernel function is based on the

quartic kernel function described by Silverman (1986, p.76, equation 4.5). The kernel density estimation calculation formula is as follows:

$$f(x) = \frac{1}{nh}\sum_{i=1}^{n} K\left(\frac{x-X_i}{h}\right)$$

where n is the sample size, h is the search radius (or bandwidth), K is a function evaluated at (x-Xi)/h, and f(x) is the kernel density estimate, which is the weighted average of points near x. The surface value is highest at the location of the point Xi and diminishes with increasing distance from that point, reaching zero at the search radius distance from the point. Combined with the search radius setting principle, we used the default search radius (bandwidth) through ArcGIS 10.2.1 to calculate the kernel density estimation results.

We applied the incremental mean threshold approach (Chainey et al., 2002) to help standardize the legend threshold settings of the kernel density estimation hotspot maps. The reason is that increments of the mean can clearly reflect increases in values and their relative significance. The authors just mentioned applied incremental mean threshold approach on crime distribution and pointed at a hotspot status being reached at three multiples of the mean grid cells' value and above. Following this approach, our calculations for the mean were applied only to grid cells that have a value greater than 0 and are within the study area boundary. The grid cell thematic thresholds were set at 0 to mean, mean to 2 mean, 2 mean to 3 mean, 3 mean to 4 mean, 4 mean to 5 mean and greater than 5 mean.

For the analysis of general spatio-temporal trends over 5 years, we applied the mean centre point – following the approach by Eck et al., 2005 – to explore differences and similarities in spatial distributions between and among visitors and residents in Hong Kong for each year from 2012 until 2016. For a more detailed analysis of the spatio-temporal trends in behaviour patterns, we plotted and compared the density distributions of check-ins by residents and MCVs in the Hong Kong area for each of the five years through the combination of kernel density analysis and incremental mean threshold approach described above.

2.4 RESULTS: BEHAVIOUR PATTERNS OF MCVS AND RESIDENTS IN HONG KONG

2.4.1 DESCRIPTIVE RESULTS: MCVS' ORIGIN

Figure 2.3 shows that most MCVs' check-ins were made by visitors from Guangdong Province, followed by Shanghai and Beijing. A substantial proportion of MCVs' check-ins were made by visitors from the eastern provinces (e.g. Jiangsu, Zhejiang and Fujian). Visitors from underdeveloped areas, such as the western provinces (e.g. Tibet and Qinghai), had the least number of MCVs' check-ins. There may be various reasons for the observed differences. Zhang and Qu (1996), for instance, found that people from Guangdong were more likely to make trips to Hong Kong because of the close geographic proximity of and strong family ties between the areas. The large proportion of visitors from places such as Shanghai and Beijing may be explained by the Chinese tourism policy regime, particularly the Individual Visit Scheme (Lam & Zhang, 1999). Moreover, differences in terms of the national distribution of Weibo users, and of internet adoption more generally, may have had some effects on the results. According to the 2017 'Weibo user development report' (Weibo Report, 2017), the relative number of active Weibo users in central-southern and eastern China is much higher than the national average. This may be due to a high correlation between the internet development level and the economic growth rate in different regions, with the highest internet penetration rates mainly in the more developed eastern provinces, and the lowest rates mainly in the often less developed southwestern provinces (CNNIC, 2018).

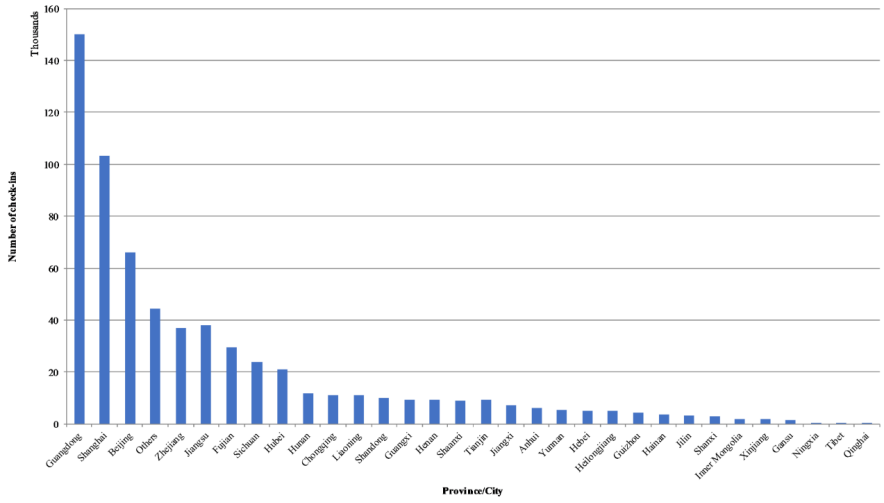

Figure 2.3 Frequencies of visitors' check-in activities from different provinces or provincial-level cities in mainland China

2.4.2 TEMPORAL PATTERNS

Figure 2.4 shows that the number of MCVs' check-ins increased from 2012 until 2013, decreased in 2014, then underwent a slight increase in 2015 and a sharper increase in 2016, returning to a situation comparable to that in 2013. Tourism in general is an industry that is extremely influenced by societal, economic, political and natural aspects, including crises and disasters (Ritchie, 2004). The development of the internet and social media has changed the traditional top-down spread of access to information in the event of a crisis (Lachlan et al., 2016). In this context, the decline in 2014 can be attributed to the anti-corruption campaign and the related turmoil in China. The topics that Weibo users discussed regarding 'Occupy Central' in Hong Kong in 2014 shifted from a political event to a tourism boycott (Luo & Zhai, 2017). In addition, the number of residents' check-ins continued to fall gradually after peaking in 2013. This may be because Weibo is less popular in Hong Kong than Facebook and Twitter, with initial enthusiasm for Weibo decreasing gradually after 2013.

Looking at the seasonal distribution of MCVs' and residents' check-ins also reveals significant temporal differences. The frequency averages show two peaks in MCVs' check-ins, namely in the summer and the winter. This might be due to summer holidays and the Spring Festival, respectively. Residents' activities showed only a slight increase during the spring and autumn, and overall, they are quite stable. The monthly pulse of MCVs' check-ins also shows larger variations than the pulse of residents' check-ins. The monthly distribution shows a pattern that is generally comparable to the seasonal pattern, but also provides interesting and explanatory details regarding peaks in MCVs' check-ins. Peaks in February, July–August, October and December may be caused by the public holidays, such as the Spring Festival and the National Day.

Figure 2.4 shows that MCVs' and residents' check-ins during the week have a similar pattern overall, with higher levels of activity at weekends, although the differences between weekdays and weekends are much more significant for MCVs than for residents. Higher frequencies of Weibo check-ins at weekends in general may be explained by the fact that tourism and leisure activities often merit more sharing and memorizing than daily activities and routines (Liu & Shi, 2017). Not only weekends but also holidays are the most obvious periods that motivate intercity travel flows (Liu & Shi, 2017). The Chinese central government enacted the Golden Week holiday system in 1999 as a pro-tourism policy to stimulate domestic tourism and the related demand (Wu et al., 2012), resulting in highly divergent week patterns of MCVs' check-ins. For both the Chinese Lunar New Year Golden Week (spring festival) and the National Day Golden Week, we found that MCVs' checks-ins peaked halfway through the week,

while residents' check-ins were much more stable during the week despite a slight dip halfway.

Altogether, in line with evidence from previous studies, we found that the temporal pattern of MCVs' activities in Hong Kong varies much more than that of residents' activities – which are much less variable and often rather stable over time – for year, season, month and day of the week as time intervals.

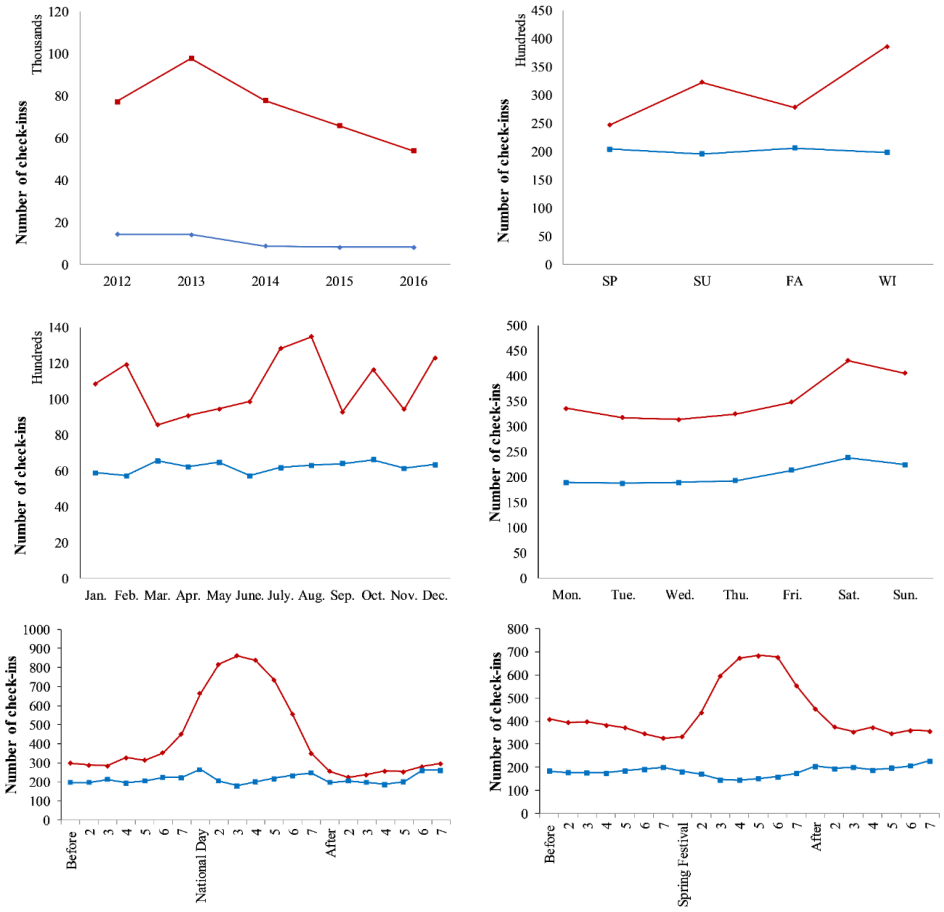

Figure 2.4 Pulse in average number of check-ins for users (visitors 'red line' vs residents 'blue line') for each year, season of the year, month of the year, day of the week, and The Golden Week (the 'Chinese Lunar New Year Golden Week' and the 'National Day Golden Week') during 5-year period (2012–2016) in Hong Kong

2.4.3 SPATIAL PATTERNS

Figure 2.5 shows the spatial distribution of MCVs' and residents' activities in Hong Kong based on their check-ins. It can be clearly seen that MCVs' activities are much more concentrated than those of residents. MCVs were highly active in the Tsim Sha Tsui area and at the airport, while residents were highly active in the same areas but also in the Causeway Bay, Central, Hung Hom, Mong Kok and Kowloon Tong areas and to a much lesser extent in several areas in the New Territories. Zooming in on the central districts of Hong Kong reveals that the most popular area for both MCVs and residents is the Tsim Sha Tsui area of Kowloon, while residents also like visiting the Causeway Bay area on the Island. The reason for these hotspots probably is that most visitor highlights and most of the popular shopping, nightclub and restaurant facilities are concentrated in these central areas (Lau & McKercher, 2006).

The Tsim Sha Tsui area consists of a lot of shopping malls and restaurants, which may be why it attracted large numbers of MCVs and residents. The airport is a hotspot for both MCVs and residents, because it is a national and an international transit hub (Tsui et al., 2018). The Causeway Bay area has lots of landmarks and facilities for MCVs and residents, such as Times Square, Sogo and Hysan Place, offering shopping malls and office buildings. Hung Hom district has the Hong Kong Coliseum and many streets lined with restaurants, hotels, schools, temples and local markets. These areas satisfy many locals' living needs, so residents extend their activity radius to these areas. Those residents, as well as MCVs, who checked in while in the Mong Kok area were mostly concentrated in Langham Place and surrounding areas, which are mainly shopping areas, with both shopping malls and local markets. Furthermore, Kowloon Tong is a low-density residential area with universities, such as the Hong Kong Baptist University and the City University of Hong Kong.

MCVs' spatial activities were more concentrated than those of residents, which is also consistent with previous studies (Kádár & Gede, 2013; García-Palomares et al., 2015). Specifically, we found that MCVs were concentrated in central urban areas and at the airport, while residents also moved to suburban and exurban areas. The hotspots we found in Hong Kong are similar to those previously identified by Vu et al. (2015), who studied inbound visitors.

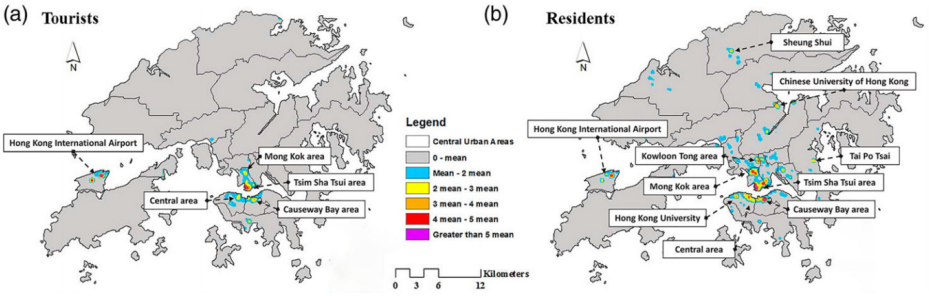

Figure 2.5 Kernel density estimation hot spot maps for visitors' and residents' check-in activity in Hong Kong during 5 years (2012– 2016) on Weibo, using the incremental mean approach

2.4.4 SPATIAL-TEMPORAL TRENDS

We calculated the mean centre points of visitors' and residents' activities for five years using check-in point data, to compare the general spatial distribution of activities and to measure trends in these spatial distributions over five years. The annual changes in the general distribution of MCVs' and residents' activities are presented in Figure 2.6, with a focus on the central urban areas of Hong Kong. Overall, the mean centres of residents' activities in 2012–16 are further north than those of MCVs' activities, but all of them are located in the Kowloon area. Over time, the mean centre of residents' activities had the most southerly position in 2012 and the most northerly position a year later. After that, the mean centre gradually moved back, while also moving up and down over the years, to almost the same starting position as in 2012. The mean centre of MCVs' activities also had the most southerly position in 2012. Over the years, the MCVs' activities had a tendency to gradually move in a northerly direction, bending back after 2014 towards the starting position of the mean centre in 2012.

To get a better understanding of the general trends revealed by the mean centre point analysis, we compared the five-year hotspot maps for MCVs and residents and combined them with OpenStreetMap (Figure 2.7 and 2.8). It shows that MCVs' activities were mostly concentrated in the central urban areas of Hong Kong in particular – i.e. Tsim Sha Tsui, Mong Kok, Central and Causeway Bay areas. By contrast, residents' check-ins occurred at dispersed locations, and most locations were in adjacent areas. Nevertheless, Tsim Sha Tsui, Mong Kok, Hung Hom and Causeway Bay were the most popular areas for residents. For an analysis of long-term trend in the spatio-temporal behaviour patterns of MCVs and residents, we categorized the most popular locations and their dynamics into different patterns of hotspots, namely rising hotspots,

persistent hotspots and declining hotspots. A rising hotspot is a location with a trend indicating an increase in the concentration of activities over time. A persistent hotspot is a location with no trend indicating an increase or decrease in the concentration of activities over time. Finally, a declining hotspot is a location with a trend indicating a decrease in the concentration of activities over time.

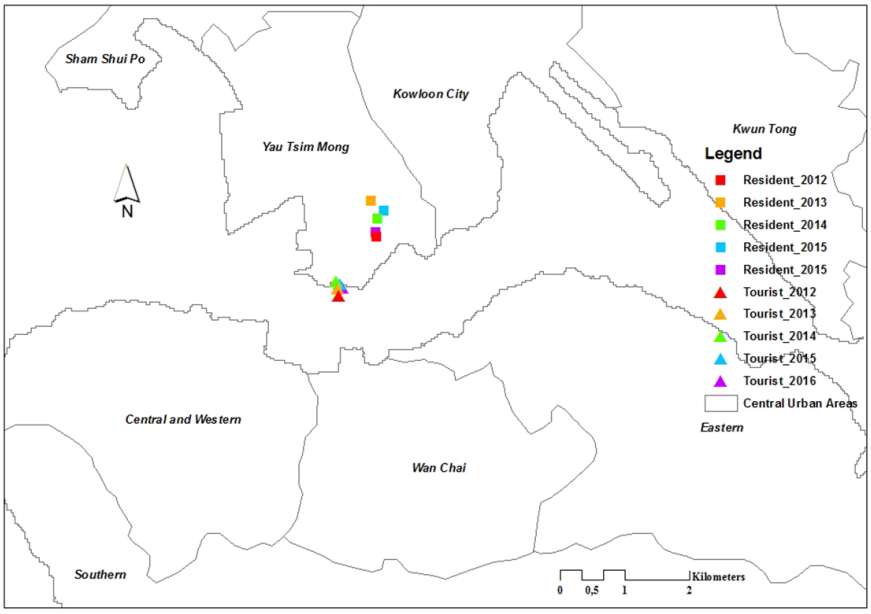

Figure 2.6 Mean centre points for visitors' and residents' check-in activity in the Central Urban Areas of Hong Kong from 2012 until 2016

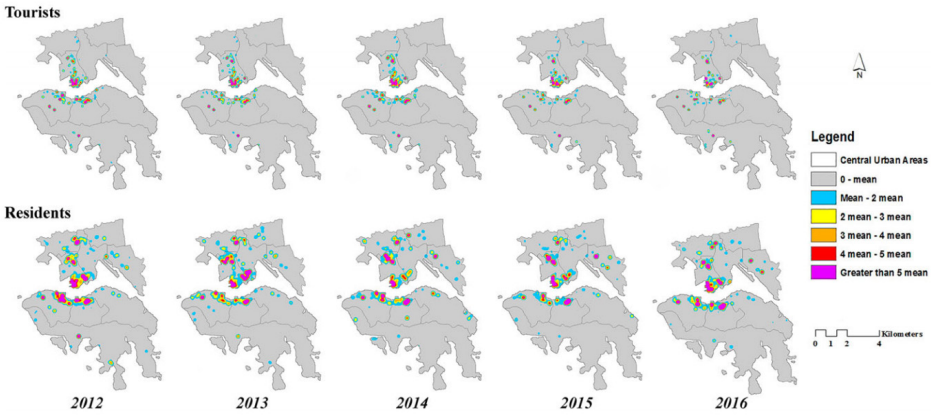

Figure 2.7 Kernel density estimation hot spot maps for visitors' and residents' check-ins in Central Urban Areas of Hong Kong from 2012 until 2016, using the incremental mean approach

For MCVs, the persistent hotspots included Canton Road (in Tsim Sha Tsui), Langham Place (in Mong Kok), International Finance Centre (in Central), Lan Kwai Fong (in Central), Times Square (in Causeway Bay), The Peak, Hong Kong Coliseum (in Hung Hom) and Ocean Park. The rising hotspots included The University of Hong Kong and Repulse Bay. The declining hotspots included Nathan Road, Tai Kok Tsui, Hollywood Road, Kwun Chung, Pacific Place and City Garden. These different long-term patterns of hotspots might be caused by several factors related to tourism demand, travel motivation and MCV preferences. For example, the popularity of Langham Place and Ocean Park was stable, potentially because they satisfied MCVs' demand for shopping and entertainment, respectively. Repulse Bay's increased popularity may be caused by increasing leisure activities. Pacific Place is a complex of office buildings, hotels and a shopping mall. It became less popular among MCVs, perhaps because MCVs' consumption pattern is changing with less interest in luxury goods offered by Pacific Place. Overall, the trends in the spatio-temporal behaviour patterns of MCVs over five years reveal that the popularity of locations in the central urban areas tended to be relatively fixed while their activities in local neighbourhoods and residential quarters (e.g. Tai Kok Tsui and Kwun Chung) decreased.

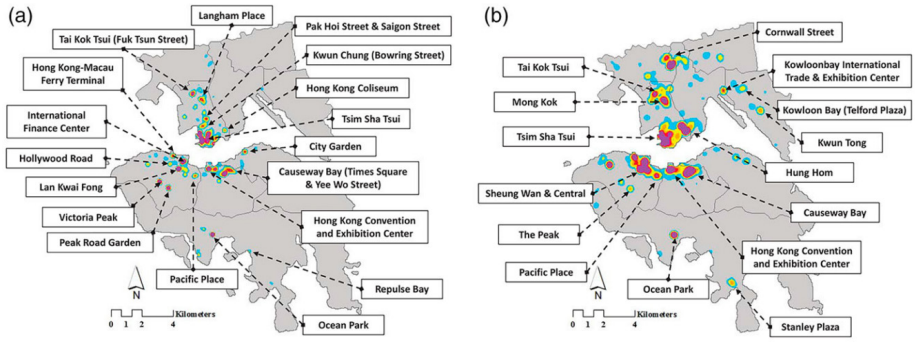

Figure 2.8 Taking the hot spot maps for (a) visitors' and (b) residents' check-ins in Central Urban Areas of Hong Kong in 2012 as examples

For residents, the persistent hotspots included Tsim Sha Tsui, Mong Kok, Hung Hom, Central and Causeway Bay. The rising hotspots included Kowloon Bay, Telfort plaza and Kwun Tong. The declining hotspots included The Peak, Ocean Park, Pacific place and Hong Kong-Macau Ferry Terminal. These different long-term patterns of hotspots were probably associated with several variables related to daily needs, commuting practices and leisure preferences. For example, Fuk Tsun Street and adjacent streets in

Tai Kok Tsui offer a diversity of hardware shops, restaurants, temples, shopping malls and markets. These areas offer the basic living needs of residents, such as household goods, food, clothing and daily necessities. Residents' decreased enthusiasm for such locations as Terminal, The Peak and Ocean Park was probably due to a change in daily activity patterns and strategies for avoiding MCVs. Related with this, residents were also quite active in Kowloon Bay, including Telford Plaza, possibly because Telford Plaza is a shopping centre for locals and few MCVs shop there. Overall, the trends in the spatio-temporal behaviour patterns of residents over five years reveal that the popularity of typical visitor highlights decreased. At the same time, their activities in other MCV hotspots – Tsim Sha Tsui, Mong Kok, Hung Hom, Central and Causeway Bay in particular – were more stable.

Comparing the persistent hotspots of MCVs and residents reveals a great deal of overlap between their activity areas in Hong Kong, providing many opportunities for encounters between them. Activities of both MCVs and residents were highly concentrated in particular locations of Tsim Sha Tsui, Mong Kok, Hung Hom, Central and Causeway Bay. Most interactions between both groups will probably occur in locations such as International Finance Centre (in Central), Canton Road (in Tsim Sha Tsui) and Times Square (in Causeway Bay). Additionally, several locations such as Tai Kok Tsui (in Mong Kok) and Hollywood (in Central) remained highly popular among residents over time but their popularity among MCVs declined – decreasing the potential for encounters between both groups in these locations. The same goes for some of the tourism highlights such as The Peak and Ocean park but then due to a combination of stable and highly popularity among MCVs and declining popularity among residents.

2.5 CONCLUSIONS AND DISCUSSION

In this paper, we identified and compared the spatio-temporal behaviour patterns of mainland Chinese visitors and residents in Hong Kong over a period of five years. We contributed to the current tourism literature by a) comparing the behaviour patterns of visitors and residents in one study – while most studies focus on visitor movements (e.g. Bujosa et al., 2015; Zoltan & McKercher, 2014), b) applying a process of 'double filtration' to more accurately differentiate visitors from residents – while most studies apply one filter (e.g. García-Palomares et al., 2015; Gu et al., 2016), and c) revealing long term trends in behavioural patterns – while most studies have a more short term perspective (e.g. Li et al., 2018; Paldino et al., 2015).

Our results show that the behaviours of MCVs in Hong Kong are more spatially concentrated, especially in the central urban areas. The spatial behaviours of residents were more dispersed in the sense that they also visit suburban and exurban areas. Looking at the time dimension revealed that the behaviours of MCVs vary significantly during the week and between months and seasons. However, the temporal behaviours of residents appeared to be relatively stable. From a long-term perspective, MCVs' preferences for locations tended to be relatively fixed. In addition, their activity in local neighbourhoods and residential quarters decreased. Typical tourism highlights in Hong Kong, such as the Peak and Ocean Park, revealed a decline in activities by its residents. Other urban areas such as Tsim Sha Tsui, Mong Kok, Hung Hom, Central and Causeway Bay were persistently popular among residents. Most interactions between visitors and residents are therefore likely to occur in locations within the latter areas while the potential for encounters appears to have decreased in local residential neighbourhoods and typical tourism highlights.

These results are important for both visitors and residents, because information about the concentration and dispersion of visitors' and residents' activities can help them to plan their itineraries, allocate their time budgets and select areas to visit - including places of interest they are unfamiliar with. The results can also be used by the tourism industry for destination marketing and management. Knowing which areas visitor find attractive may help in developing and fine-tuning marketing campaigns. Knowing that a particular area is decreasing in popularity over time may signal that the supply of services and facilities needs to be changed. The results also provide signs of potential overcrowding in specific urban areas, when taking indications of avoidance behaviour by residents into account in particular (in the case of declining popularity of typical visitor highlights among residents). This information can be helpful for policy makers and planners aiming to promote more socially sustainable tourism and striving for a more harmonious relationship between visitors and residents in the city. Based on our results, unfamiliar and underdeveloped visitor areas as well as new attractions outside the 'beaten track' – i.e. outside the main visitor hotspots – could be selected, developed and marketed to spread visitors to much less crowded spaces in the city. For spreading the flow of visitors in time, the city of Hong Kong could make use of the visa system for mainland Chinese visitors – possibly relaxing restrictions on visitor arrivals on weekdays and in autumn and winter, but tightening up at weekends and during holidays. After the implementation of policy changes, our analysis with a long-term perspective may be used to monitor changes in spatio-temporal behaviour of MCVs and residents in the city.

The data from Weibo check-in records proved highly useful for analysing spatio-temporal behaviour patterns in Hong Kong. First of all, the geo-tagged and time-stamped data extracted from the Weibo platform enables detailed measures to differentiate visitors and residents – based on their origin and length of stay. Secondly, as social media platform allows the extraction of check-in data over years or even decades, taking a long-term perspective on spatio-temporal behaviour patterns of visitors and residents is feasible. In so doing, we are able to trace trends in (overlaps between) where and when both groups concentrate and generate hotspots in the city. Thirdly, the Weibo platform enables an analysis of spatio-temporal behaviour patterns of visitors and residents based on the same data source, avoiding several technical issues and biases when trying to combine different data sources.

However, the data from Weibo check-in records also entailed limitations for our analysis of which we want to discuss two in more detail here. First, not all MCVs may make use of the Weibo platform when visiting Hong Kong and residents often make more use of other social network platforms than Weibo. Together, this implies that the results could be biased – because the data may represent specific subsets of MCVs and residents in Hong Kong – and therefore should be interpreted with care. Ground-proofing the results with other data sources will be helpful in better assessing the quality and reliability of Weibo data for analysing spatio-temporal behaviour patterns. Second, underlying factors explaining the spatio-temporal behaviours of MCVs and residents have been discussed in this study but not analysed in detail. In future work we will focus on analysing behavioural characteristics, motivations, attitudes and perceptions of different types of visitors in Hong Kong as increasingly important users of the city.

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3

WHERE DAY TRIPPERS AND TOURISTS GO: COMPARING THE SPATIO-TEMPORAL DISTRIBUTION OF MAINLAND CHINESE VISITORS IN HONG KONG USING WEIBO DATA

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ABSTRACT

This article analyses and compares the spatio-temporal concentration and dispersion of Mainland Chinese visitors in Hong Kong based on Weibo check-in data. An algorithm is provided to differentiate four types of visitors according to their length of stay and origin – day trippers and tourists from Shenzhen as well as from the rest of Mainland China. Geospatial and temporal analysis are used to measure their spatio-temporal distribution. The results show that hotspots of visitors from the rest of Mainland China are mostly concentrated in downtown areas, while visitors from Shenzhen also generate hotspots closer to the border. In contrast to previous studies, our data shows that the activity pattern of day trippers is both more spatially dispersed and more likely to form local hotspots than the activity pattern of tourists. In addition, visits of day trippers are more concentrated during weekends and daytime than visits from tourists, which are more evenly distributed in time.

Keywords: day trippers; tourists; cross-border travel; Weibo check-in data; spatio-temporal distribution

3.1 INTRODUCTION

Large and growing numbers of visitors can boost the economic performance of cities but may also increase pressure on the urban infrastructure and generate crowding in public spaces (Russo, 2002). This is primarily, but not exclusively, the case in spaces within the historical cores of cities which offer many tourist highlights but also other facilities and services that are used by visitors as well as residents at the same time (Ashworth, 2012; Edwards et al., 2008). This concentration of different types of city users in both time and space becomes a problem when it brings negative effects on residents' as well as visitors' well-being and quality of life (Urry & Larsen, 2011). City visitors are often categorized into 'day trippers' and 'tourists' based on their length of stay in the destination (Girardin et al., 2007) – with day trippers recognized as generating less economic benefits for cities and its residents than tourists. Moreover, day trippers are thought to create higher social costs as well, related with excessive visitor demand and carrying capacity problems in the popular tourist spaces of the city (Van der Borg, Costa & Gotti, 1996; Alegre & Pou, 2006).

While there is a vast literature regarding day trippers and tourists, previous studies mainly focused on comparing economic impacts (e.g. Chhabra, 2006; Murillo et al., 2013; Russo, 2002; Rodríguez et al., 2018; Wong & Zheng, 2016), socio-demographic characteristics, travel motivation and transport choice of day trippers and tourists (e.g. Pérez-Cabañero et al., 2017; Rodríguez et al., 2018). In general, studies on day trippers are relatively rare because it is difficult to obtain statistical information on this particular type of city visitors – as distinguishing day trippers from tourists requires data of high temporal resolution (Candela & Figini, 2012; Suriñach et al., 2017; Wynen, 2013). Moreover, few studies have analysed and compared the spatio-temporal distribution of day trippers and tourists at a city scale. Existing studies reveal that day trippers' activities are more concentrated than activities of tourists in space and time (e.g. Fernández et al., 2016; Prentice et al., 1994; Stetic et al., 2011). However, these studies are usually based on a limited sample and/or a specific segment of tourists and day trippers. So far, little attention has been paid to analysing and comparing aggregate patterns in terms of spatial concentration and dispersion of tourists and day trippers across the entire city. Such insights are crucial for developing an understanding of the spatial and temporal processes behind tourism-induced crowding at the city scale. It is online social media data that provides an opportunity to both distinguish day trippers from tourist due to its high temporal resolution and to capture visitors' spatio-temporal behaviors at a larger scale due to its wide spatial reach.

In Hong Kong, a city with high visitor appeal, the majority of visitors are from Mainland China due to the geographical location and the close economic and social relationships. The city has established a reputation of 'shopping paradise' among these visitors, being offered a range of opportunities to buy luxury but also daily goods duty free. As such, shopping is also the main travel motivation of visitors from the Mainland (Huang & Hsu, 2005). However, most of them are day trippers, and this large group is considered to have effects that go beyond the carrying capacity of the city, increasingly generating social tensions with the local community (Wong & Zheng, 2016). When it comes to cross-border travel, people from Shenzhen – the border city – have an advantaged position in terms of visa policy and geographical location compared to visitors from the rest of Mainland China. In contrast to visitors from Mainland China, whose duration of stay is up to 7 days per trip, multiple-entry permits were introduced in 2008 for Shenzhen residents visiting Hong Kong. They can visit Hongkong once a week for a maximum of seven days since 2015. Visitors from Shenzhen tend not to stay overnight because they live just across the Hong Kong border (Wong & Zheng, 2016) – resulting in many day trippers from this city (Liu & McKercher, 2016). Parallel traders from the Mainland also take advantage of the Shenzhen visa scheme to buy daily goods in Hong Kong (Tsang, 2013). These trading activities with a high frequency are considered to have caused an additional series of social problems, particular for the residents living close to the border (Zhang, Wong & Lai, 2018).

This study analyses and compares the spatio-temporal distribution of tourists and day trippers in Hong Kong. By taking the importance and complexity of the border context into account, we made a distinction between four different types of visitors – i.e. day trippers and tourists from Shenzhen and from the rest of Mainland China. Making a comparison between day trippers and tourists from nearby the border and from further away allows us to analyse and compare potential specificities of border-related mobility and shopping. Our empirical study for Hongkong combines Weibo check-in data and spatio-temporal point pattern analysis. We thereby demonstrate how current methods in tourism studies can be enhanced using social media data, both in order to differentiate between day trippers and tourists and to scale up analysis over large quantities of visitors across an entire city. To this end, we propose a method that allows to approximate the length of visits from check-in data in order to differentiate between day trippers and tourists. The results contribute to a more comprehensive understanding of the spatio-temporal behavior of different groups of day trippers and tourists. This is helpful for urban tourism planning and management in developing better strategies for the reduction of crowding and related tensions in specific spaces and/or at specific times in the city. Yet, care must be taken about the various biases in social media data.

3.2 THEORETICAL FRAMEWORK

Social media data has recently spurred and renewed interests in analysing the spatio-temporal behavior pattern of visitors in cities. García-Palomares et al. (2015), for instance, identified the most important tourist hotspots in major European cities by analysing the spatial concentration of geotagged visitor photos from Panoramio. They also found that photos taken by visitors have a higher spatial concentration than photos taken by residents. For US cities and based on an analysis of geotagged photos from Flickr, Li et al. (2018) found that downtown areas with tourist highlights and landmarks usually attracted a larger share of visitors while areas with local markets and culturally diverse neighbourhoods attracted more residents. For Hong Kong, based on an analysis of Flickr data as well, Vu et al. (2015) pinpointed several areas where international visitors tend to concentrate, such as Tsim Sha Tsui and Mong Kok in the metropolitan area but also the Peak tower and the Tian Tan buddha statue in the countryside. These tourist hotspots were confirmed for Mainland Chinese visitors in a study based on Weibo check-ins by Su et al. (2019), also showing for a period of 5 years that the spatial preferences of Mainland Chinese visitors were relatively stable. However, their activities in local, residential neighbourhoods did decrease over time whereas popular tourist highlights and landmarks showed a decline in residents' activities.

With a focus on the temporal distribution of visitor check-ins on Weibo, Liu and Shi (2019) found that the check-ins were highly concentrated during the weekends in Hangzhou in China and that the number of arrivals had also increased during the weekends after the opening of the Nanjing–Hangzhou inter-city high-speed rail connection. From a temporal perspective and based on an analysis of Weibo check-in data, Su et al. (2019) showed that the behaviour of Mainland Chinese visitors in Hong Kong varies greatly during the week – with a peak during weekends – as well as between months and seasons – with peaks in summer and winter – while the behaviour of residents turned out to be relatively stable over time. Furthermore, Mou et al. (2020) analysed spatio-temporal changes in the visitor flow towards Shanghai by making use of geotagged photos from Flickr. They found that major events like the World Expo generate a temporary peak and therefore increased concentration of visitor activities in the city.

Zooming in on studies analysing the spatio-temporal behaviour patterns of different types of visitors, day trippers and tourists in particular, reveals that studies on the spatio-temporal behaviour of day trippers are relatively rare. Moreover, little attention

has been paid so far to analysing and comparing aggregate patterns in terms of spatial concentration and dispersion of tourists and day trippers across an entire city. Existing studies on the spatial concentration or dispersion of day trippers and tourists in urban destinations focus on the spatial radius of activities and are often based on a limited sample and/or specific segment of tourists and day trippers. For instance, based on a survey among visitors on the Gower peninsula in Wales, Prentice et al. (1994) demonstrated significant differences in the usage of city space for the two groups, with tourists exploring more space than day trippers. Stetic et al. (2011) also found that a smaller activity radius is a characteristic feature of same-day trips. Further survey research in Santiago de Compostela by Fernández et al. (2016) indicated that activities of day trippers is limited in space due to a restricted time budget. Thus, these studies point at a higher degree of spatial concentration of day trippers' than of tourists' behavior – be it that they usually take the perspective of a limited sample and/or a specific segment of visitors and do not look at aggregate patterns of different types of visitors together. Taking their limited time budget into account, the activities of day trippers may not only be more concentrated in space but also in time. In this context, Stetic et al. (2011) found that day trips usually involve visits in relatively close-by destinations and in a relatively short period of time, possibly even a few hours only. They also indicated that the most common types of same-day trips take about half a day and take place during the weekend.

The 'vicious cycle model' by Russo (2002) provides a framework to analyse the spatial-economic dynamics of urban tourism destinations by looking at different types of visitors, i.e. day trippers and tourists. The model demonstrates the process that when the ratio of day trippers and tourists increases, the visitor area expands from central sites to other sites outside the city centre. An important part of this process is that rising numbers of day trippers concentrate in the historical cores of cities making these areas less appealing to tourists due to overcrowding and product standardization. As such, tourists disperse towards other, more peripheral areas of interest beyond the city centre – which may feed the dynamics of the vicious cycle again when day trippers follow in their footsteps, for instance.

Most of the literature building on the vicious cycle model has paid attention to the historical and cultural city but the model could also be applied and extended to other types of urban tourism – including the leisure shopping city. While urban heritage is hardly reproducible and remarkably concentrated in cities, shopping facilities seem easier to reproduce and more dispersed over cities. Although heritage environments are not necessarily unimportant for leisure shoppers, a more ubiquitous availability

of shopping facilities throughout the urban destination – like is also very much the case in Hong Kong – may result in a different spatio-temporal distribution of day trippers and tourists. This reasoning resonates with the idea that tourist areas should not be considered isolated bubbles (Judd & Fainstein, 1999) in the city but that these areas are embedded and intertwined with the city as a whole (Ashworth & Page, 2011; Burtenshaw et al., 1991).

Residents and visitors increasingly make use of the same facilities and services throughout the entire city (Ashworth & Page, 2011) – including transportation and public space, heritage and culture, catering, entertainment, sport, nightlife as well as retail facilities. Shopping is an important activity of urban visitors, like is the case for Mainland China visitors in Hong Kong for both day trippers and tourists (Huang & Hsu, 2005), requiring their engagement in cross-border travel.

The connections between borders and tourism can be categorized into three spatial relationships: the tourism area is distant from the border; the tourist area is close to the border; the tourist area extends across or meets at the border (Matznetter, 1979, 67). The tourist area in Hong Kong is partly distant from the border and partly adjacent to the border. Yeung and Yee (2012) noted that the shopping motivation for Mainland visitors in Hong Kong includes low prices, high quality, product variety, good service, comfortable environment, convenient opening hours, bargain hunting opportunities, simple border crossing procedures and many retail agglomerations.

Some of these different types of shopping motivations – like low prices and product variety – can be associated with so-called utilitarian shopping. Many scholars also argue that cross-border shopping is a mainly economically driven activity for which travel distance and many other 'costs' are minimized (e.g. Asplund et al., 2007; Blakney & Sekely, 1994; Dmitrovic & Vida, 2007; Ghaddar & Brown, 2005; Wang, 2004). Others argue that cross-border shopping is a leisure activity, associated with shopping motivations like good service and comfortable environment (e.g. Jonston et al., 1991; Ryan, 1991). Such cross-border recreational shopping is undertaken with a lower frequency than utilitarian shopping, which may also include the buying of daily goods. For recreational shoppers, the travel distance towards and thereby the geographical location of shopping spaces is of much less a concern and experiences of local environments and atmospheres much more. The use of retail facilities is then often combined with the consumption of cultural, catering and entertainment retail facilities as well as tourist landmarks (Spierings & Van der Velde, 2013). Moreover, undertaking recreational shopping is also a more important visiting motive for people living further

away from the border than for people living nearby (Spierings & Van der Velde, 2013; Szytniewski & Spierings, 2018).

In the context of cross-border travel and shopping activities in Hong Kong, we will analyse the spatio-temporal distribution of four different groups visitors in Hong Kong – making a distinction between visitors from nearby the border and further away. More specifically, we will distinguish and compare day trippers from Shenzhen, day trippers from the rest of Mainland China, tourists from Shenzhen and tourists from the rest of Mainland China.

3.3 RESEARCH DESIGN

3.3.1 DATA ACQUISITION AND PRE-PROCESSING

Figure 3.1 describes the process flow developed for this study, including the involved operations (rectangular boxes) and the resulting datasets (database symbol). We also present the data removed in each step, in order to make clear what is contained in our sample and what is not.

The Weibo query interface allowed us to query for users and their check-ins to a certain place (making use of 'place/nearby/pois' and 'place/poi_timeline'). As a first step, we used the interface to query for *all check-ins to Hong Kong and the corresponding users*, ignoring all check-ins to other places.

As a second step, we then selected the subset of users who originate from Mainland China using an SQL query in MySQL database, resulting in 63,319 users. This removes all users who originate from Hong Kong, Macao, Taiwan and Overseas.

As a third step, we then loaded all check-ins of these users, including also check-ins outside Hong Kong, which is used to determine when a visit to Hong Kong is supposed to start and end. The result was a database of Weibo users from Mainland China who visited Hong Kong at least once, together with all their check-ins. For this purpose, we used another open API on the Weibo Platform called "place/users/checkins".

As a fourth step, we then applied Algorithm 1 (explained below) in order to reconstruct *whole visit events* from this raw data.

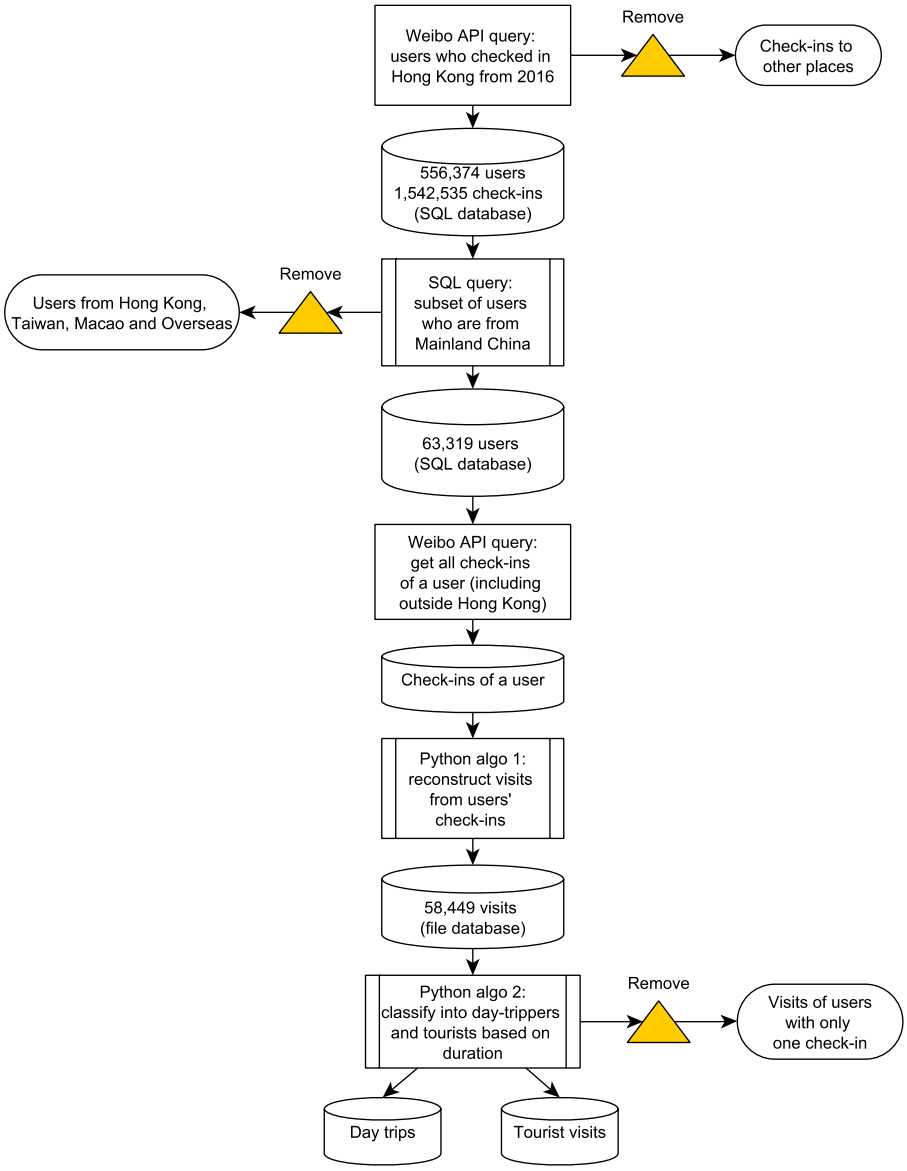


Figure 3.1 Process flow

Based on these events, we then *classified* visits into tourist visits and day trips using Algorithm 2 (explained below). In the last step, we also removed certain kinds of visits that did not contain sufficient data for the classification (explained below). We will now go through this flowchart in more detail.

3.3.1.1 Processing raw dataset

Weibo is one of the largest Chinese social media services and the most popular online social networking website in China (e.g. Wang et al., 2016; Zhang et al., 2016). According to the 2017 Microblog User Development Report by Weibo, the monthly active users were approximately 376 million until September of 2017. Weibo users can share their location through a geotagged location service (check-in). The word "check-in" means that users confirm or share their locations when they post a message (Todd et al., 2008; Zhen et al., 2017). As shown in Figure 3.2, one microblog consists of user account, location, text, time as well as photos.

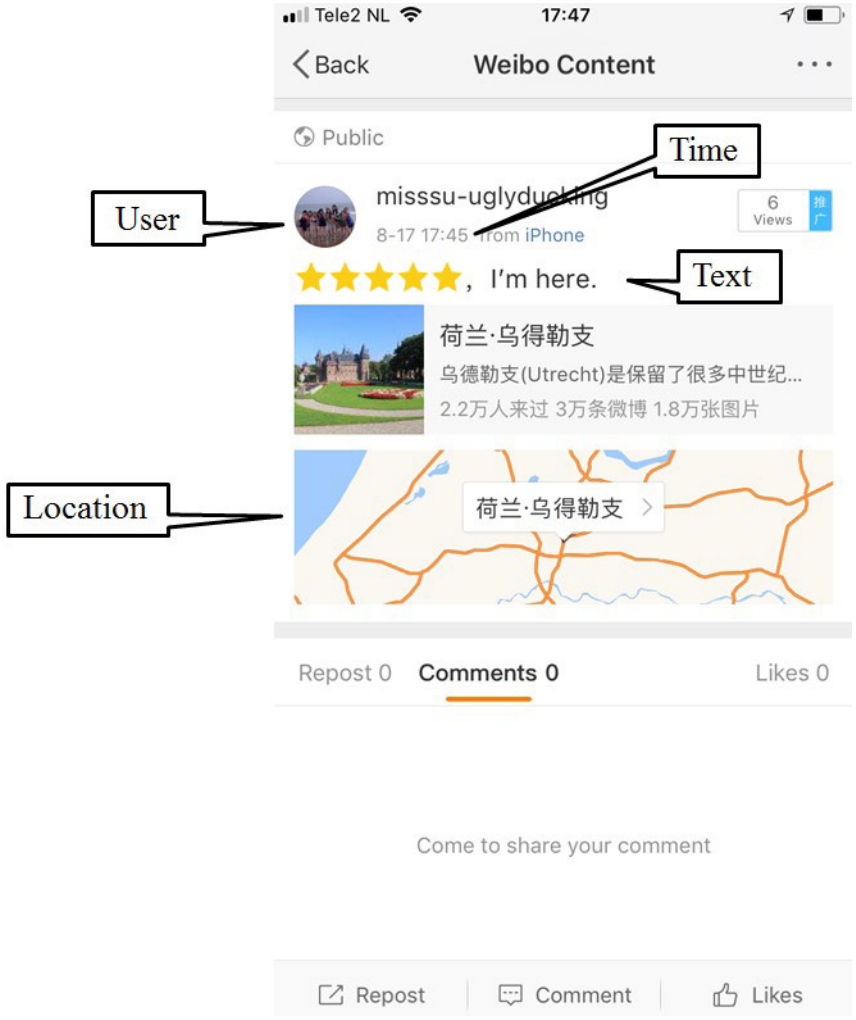


Figure 3.2 Users' check-in message in Weibo

Except for location information, another advantage of the Weibo check-in application are timestamps allowing to study the temporal dimension of activity patterns. Both geographical location and timestamp are crucial attributes in this study. Weibo provides public application programming interfaces (APIs) for application developers to search and download check-ins (Wang et al., 2016; Zhang et al., 2016). The process of data acquisition was present as follows. First, we used a web crawler written in Python to obtain all POIs (Point of Interest) in Hong Kong. Second, we called two APIs on the Weibo Open Platform to obtain information of places and users. One API ('place/nearby/pois') was used to obtain the information about visited places, such as "poiid". Afterwards, we called another API ('place/poi_timeline') to obtain the information of users, such as ID, location, gender, province and city. Third, we removed the check-ins with missing coordinates and user attributes, as well as those outside Hong Kong. In total, 1,542,535 check-ins were left over in the MySQL database. The Weibo platform unfortunately stopped maintaining these functions in June of 2017, including location-related services.

3.3.1.2 Reconstructing visits

Previous studies using social media data (e.g. Kádár & Gede, 2013) calculated the period between the first timestamp and the last timestamp of check-ins, which was regarded as the length of a stay and used to differentiate day trippers from tourists. However, people can visit Hong Kong several times after each other. The method applied in these previous studies would summarize all those check-ins into a single extended visit. This however will not give us a reliable estimate of actual visiting events. We therefore divided the whole period into several visits and calculated their duration separately.

The difficulty lies in deciding when a visit probably starts and ends. Two criteria were applied to reconstruct visits. One criterion we used was the maximum length of one stay. Visitors from Mainland China need an exit-entry (EEP) to stay in Hong Kong – allowing for group tours and individual visits, excluding business visits and visits of relatives. Residents from 49 Mainland cities are entitled to individual visits while others need to join group tours. The holder of an EEP is allowed to make one or two visits to Hong Kong and to stay for not more than seven days on each visit (Tourism Commission, 2019). For that reason, we constructed visits that lasted at most one week. The other criterion we took into account to reconstruct visits was the space and time of check-ins. If a user checked-in when in Hong Kong as well as before and after the visit outside Hong Kong, then this can be used as an indicator for the maximum and minimum length of the visit. In summary, we consider a set of check-ins by a user

a *valid visit* to Hong Kong, if and only if:

- It is a consecutive series of check-ins of a single user in places in Hong Kong (no check-ins in places outside in between)
- The time interval between the first and the last check-in is no more than 7 days
- The number of check-ins allows us to determine duration. This means we disregarded visits with only one check-in (zero duration).

This definition is implemented in Algorithm 1 (Figure 3.3), which takes a chronologically ordered list of check-ins of a single user as input. The algorithm iterates over each check-in in the list. If the check-in was in a place within Hong Kong, then a new visit is initialized which is filled up with further Hong Kong check-ins (visit continues, line 10) until one of two break conditions is met. The first is that a visit lasts longer than a week (line 6), and the second one is that a check-in is done outside Hong Kong (line 11). In the second case, the visit ends and is put into a new list of visits. In the first case, additionally a new visit starts. As a result of this algorithm, we obtain a list of visits with corresponding Hong Kong check-ins for each user.

Algorithm 1 Reconstructing visits to Hong Kong

Input: checkins (*list of checkins in chronological order*)
Output: visits (*list of visits of the user*)

```
 1: for c in checkins do
 2:     if c in Hongkong then
 3:         if visit == None then
 4:             visit ← new Visit(c) (new visit starts)
 5:         else
 6:             if visit.duration > 7 days then
 7:                 visit.ends(); visits.add(visit) (visit ends)
 8:                 visit ← new Visit(c)
 9:             else
10:                 visit.add(c) (visit continues)
11:     else
12:         if visit == None then pass
13:         else
14:             visit.ends(); visits.add(visit) (visit ends)
15: return visits
```

Figure 3.3 The algorithm for reconstructing visits

3.3.1.3 Classifying day trippers and tourists

To determine whether a visitor is a day tripper or tourist, we need information about overnight stays outside of their living environment (Page & Hall, 2014). The concepts of day tripper and tourist need to be distinguished by the duration of their visits. The true visit time is uncertain, because we do not have any measurement of the time when people cross the Hong Kong border. We estimated the duration based on the Hong Kong check-ins therefore in a conservative way: since Mainland Chinese visitors are not allowed to cross the border several times per week, they need to stay in Hong Kong during the time of their visit event. Calculating the time interval between the first and the last check-in within a visit therefore measures exactly the minimum time that these people had to spend in Hong Kong. For this purpose, we implemented a class VISIT which gets initialized with a first check-in and is finalized with the last consecutive one, estimating its duration as the time difference of check-ins (see lines 3, 5 and 6 of Algorithm 2), as shown in Figure 4. After we estimated the duration, we classified visits according to the following principles:

Day trippers: no more than 24 hours of stay and all check-ins need to be within one calendar day. This means that users who have check-ins at two different days of a week within 24 hours were not considered day trippers. For example, check-in times could be 25-12-2016 22:36:42 / 26-12-2016 15:14:14, then the duration of the visit is 16:37:32 (hh:mm:ss). These visitors were added to the tourist group.

Tourists: Tourists are considered visitors who stay for more than a calendar day and for no more than 7 days.

Algorithm 2 Classify visits

```
1: class Visit()
2: function INIT(checkin)
3:     itime = checkin.time (start time)
4: function END((checkin):)
5:     etime = checkin.time (end time)
6:     duration = etime - itime
7:     visitclass = (("Daytripper" if duration <= 1 day and
         sameDay(itime, etime) else "Tourist") if duration > 0)
```

Figure 3.4 The algorithm for classifying visits

This is expressed by the condition in line 7 of Algorithm 2. This expression has a further condition for these two classes, namely that the minimum duration of a visit needs to be greater than 0. This excludes those visits with only one check-in, which were considered insufficient for the distinction.

In this way, we obtained 58,449 visits, consisting of 10,183 check-ins for day trippers and 24,773 check-ins for tourists. Following other social media studies using the user's origin – i.e. the place of registration as can be found in social media accounts – to distinguish the provenance of visitors (e.g. Gu et al., 2016; Vu et al., 2015), we used the user's origin as registered in Weibo accounts to divide the day trippers and tourists into four groups: day trippers from Shenzhen (*Ds*) and the rest of Mainland China (*Dm*) were distinguished from tourists from Shenzhen (*Ts*) and the rest of Mainland China (*Tm*). As Zhang et al. (2016) demonstrated – by comparing concentrations of Weibo users' check-in activities and the places of registration in their accounts – the user's origin as registered in a highly reliable indicator of the actual permanent residence or hometown of Weibo users. At last, we obtained 503 check-ins for *Ds*; 9680 check-ins for *Dm*; 465 check-ins for *Ts*; 24308 check-ins for *Tm*. To obtain comparable sample sizes for the four groups of visitors, we randomly selected samples of a similar size for *Dm* and *Tm*. The result can be found in Table 3.1.

Table 3.1 Groups of day trippers and tourists

Groups	Check-ins
Day trippers from Shenzhen (*Ds*)	503
Day trippers from the rest of Mainland China (*Dm*)	500
Tourists from Shenzhen (*Ts*)	465
Tourists from the rest of Mainland China (*Tm*)	500

3.3.2 DATA ANALYSIS

A check-in is a georeferenced event of visiting a place represented by point coordinates. A visitor may not check in to Weibo at all places he or she visits, and thus the set of check-ins usually remains incomplete. Since our study does not aim at reconstructing the spatio-temporal activity patterns of individual visitors, but rather considers the aggregate pattern of different groups of visitors across the city, incompleteness is less of a problem. For our purpose, a broad sample of check-ins is sufficient, even if this sample is not a complete record of visits for each individual visitor. Moreover, as Liu and Shi (2019), for instance, indicated that the usage patterns – proportions of check-ins on workdays, weekends and holidays – revealed the high correlation

between tourism activities and check-in data. The authors further demonstrated – by comparing tourism-related check-in data and official records of guided visitors – there is a high correlation between check-in data and empirical visitor records. As such, Weibo check-in data reflects the popularity of tourism activities, making it a valid source for the purpose of this paper.

First, we applied *standard distance (SSD)* and *nearest neighbour analysis (NNA)* to test for evidence of point dispersion and clustering. Among them, standard distance measures the overall dispersion level of point distributions. The *nearest neighbour index* is an indicator of whether spatial clustering of point distribution exists. The statistical significance of the nearest neighbour index was tested by a *Z-test* (Clark & Evans, 1954; Hammond & McCullagh 1978; Ripley, 1981). The test compares the observed nearest neighbour distance with the one expected from a random distribution. A negative z-score is an indicator of *nearest neighbour index (NNI)* significance. The nearest neighbour index is the ratio of the observed nearest neighbour distance to the mean random distance:

Nearest Neighbour Index = NNI = d(NN) / d(ran)

If *d(NN)* is the same as *d(ran)*, the ratio will be 1.0, which is evidence for spatial randomness. If *NNI* is less than 1.0, this is evidence for clustering. Conversely, if *NNI* is greater than 1.0, this is evidence for dispersion.

Second, the *nearest neighbour hierarchical clustering (NNH)* identifies groups of points that are spatially close. The method defines a threshold distance and compares the threshold to the distances for all pairs of points. The points selected for clustering are those points closer to others than the threshold distance. Besides, the minimum number of points in a cluster needs to be specified. Points that are closer than the threshold distance and sum up to the minimum number of points are clustered at the first level (first-order clusters). The process is repeated until either all points are assigned to a cluster or until the clustering criteria fail. This method can identify small geographical environments with high point concentrations. In this study, the threshold distance used was a random nearest neighbour distance and the minimum number of points was set to a value of 10.

To estimate cluster locations, a convex hull was applied – enclosing all points with the smallest possible convex polygon. For detailed neighbourhood-level analysis, convex hulls are more suitable because they show where the events clustered and where the

hotspots could be located.

Finally, we explored the temporal patterns for four groups at different temporal granularities. For this purpose, we generated time series plots of the amount of activities across the hours of the day and the days of a week. More specifically, we charted the average frequency of check-ins from four groups across 24 hours of each day within 7 days of one week. We classified the Weibo check-ins according to whether they took place during weekdays (Monday-Friday 6 am-6 pm), weekends (Saturday-Sunday 0 am-24 pm), or weeknights (Monday-Friday other times). Different colours were applied to represent the three periods.

3.4 RESULTS

This section summarizes our results and interprets them based on existing knowledge about spatial and temporal behaviors of day trippers and tourists. We do this by referring to the four groups of visitors introduced above and with respect to each of our analysis methods (compare section 3.2), namely standard distance analysis for analysing the spatial dispersion of visitors, nearest neighbour analysis for testing the existence of hot spots, spatial hierarchical cluster analysis for finding hot spots, and temporal analysis for analysing differences in behavior between day and night, weekday and weekend.

3.4.1 STANDARD DISTANCE

SSD was performed on the check-ins of four groups of visitors in Hong Kong and the results can be found in Table 3.2. The spatial distribution of group *Ds* presents the highest value, followed by group *Ts*, *Dm* and *Tm*. The result suggests that the check-in activities of people from Shenzhen were more dispersed than those from the rest of Mainland China. Visitors from Shenzhen probably are more inclined to visit locations that are peripheral in Hong Kong and close to the Shenzhen border such as Sheung Shui. Furthermore, the results also illustrate that activities of day trippers are more dispersed than those of tourists from the same origin. This is not necessarily against the findings of previous studies which suggests a smaller activity radius of day trippers (e.g. Fernández et al., 2016; Prentice et al., 1994; Stetic et al., 2011). The activity radius of day trippers at the aggregate level can still be dispersed while segments of day trippers focus on one or a just a few places – as will be discussed in more detail in section 4.2. The overall dispersal of day trippers as compared with the overall concentration of tourists can be explained by travel motivation combined with the availability of consumer services. The interests of tourists usually are more diverse

and include more than shopping. They probably prefer visiting the downtown areas offering a mix of cultural, catering, entertainment and retail facilities as well as the main tourist highlights. Day trippers instead more often focus exclusively on shopping. Shopping facilities are ubiquitous throughout Hong Kong and day trippers therefore have many sub-areas serving this purpose to choose from.

Table 3.2 Standard distance results for check-in activities of four groups in Hong Kong

Visitor type	Standard distance (meters)
Day trippers from Shenzhen (*Ds*)	13,886.92
Day trippers from the rest of Mainland China (*Dm*)	12,586.90
Tourists from Shenzhen (*Ts*)	13,016.28
Tourists from the rest of Mainland China (*Tm*)	12,141.83

3.4.2 NEAREST NEIGHBOUR ANALYSIS

Table 3.3 shows the NNI results for check-ins of the four groups. The index suggests that check-in activities show evidence of spatial clustering. The Z-values for all groups are highly significantly smaller than what would be expected by randomness. Negative Z values indicate that a clustered pattern exists. Comparing the nearest neighbour indices, the result shows that *Ds* is most likely to show 'hot spots', followed by *Ts*, *Dm* and *Tm*, which illustrates that day trippers are more likely to form hot spots than tourists from the same origin. This finding regarding the clustering of check-in activities based on NNI is not necessarily contradicting the findings about dispersion levels through standard distance. NNI tolerates different clusters, whereas standard distance is dependent on the distances between such clusters. Thus, even though the overall dispersion level is higher, a crowd with a high NNI can still concentrate at a limited number of locations. This is consistent with the work of Stetic et al. (2011) if we understand their argument regarding the movements of day trippers showing a smaller radius by visiting only a highly selective numbers of areas – which is due to their more limited time-budget – in terms of segments of day trippers rather than their aggregate behavior.

Another result is that visitors from Shenzhen are more likely to form hot spots than visitors from the rest of Mainland China. Taking into account that visitors from Shenzhen are more likely to be repeat visitors than visitors from Mainland China, this could be explained by the work of Lau and McKercher (2004) arguing that repeat visitors are more likely to have a more concentrated activity pattern than first-time visitors who tend to be more explorative in nature and therefore more dispersed in activity pattern.

Table 3.3 Nearest neighbour analysis results for check-in activities of four groups in Hong Kong

Visitor Type	NN Index	Z-score	Description of Spatial Distribution
Ds	0.1461	-36.6353	Clustered
Dm	0.2085	-33.8592	Clustered
Ts	0.1907	-33.3842	Clustered
Tm	0.2201	-33.3642	Clustered

3.4.3 NEAREST NEIGHBOUR HIERARCHICAL CLUSTERING

Figure 3.5 shows the results of the hierarchical clustering (NNH). On the level of lowest-order clusters, it can be seen that *Ds* has 13 spatial clusters and *Dm* has 9 spatial clusters and *Ts* has 11 spatial clusters and *Tm* has 13 spatial clusters. Some of these areas (e.g. Tsim Sha Tsui) are located in central urban areas and the others (e.g. Sha Tin) are located in New Territories.

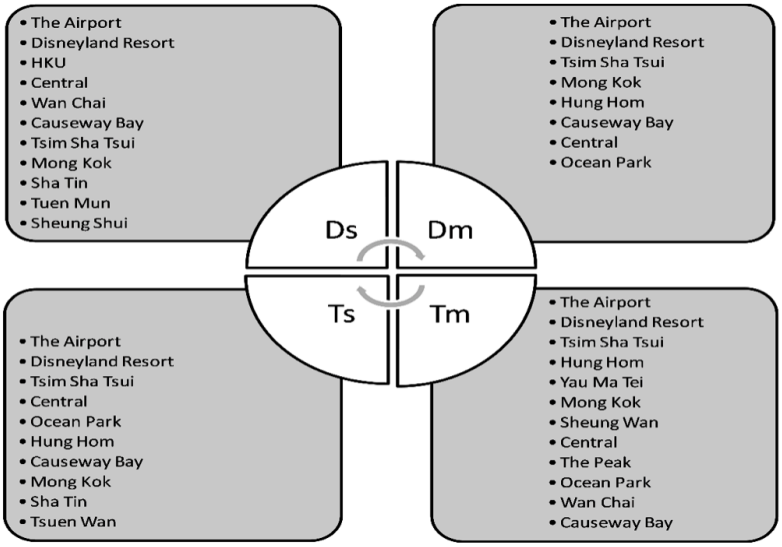


Figure 3.5 Nearest neighbour hierarchical clustering results for check-in activities of four groups in Hong Kong

Reasons for why different groups go to different places may be found in the types and characteristics of places. Tsim Sha Tsui attracts many visitors because it is an area with many stalls, shops, markets and malls. Mong Kok is the most congested shopping and residential district with lots of markets and shopping streets, such as

the Ladies' Market and Langham Place. Yau Ma Tei is famous for the night market in Temple street. Hung Hom is well-known for the Hong Kong Coliseum, organizing various events and attracting large numbers of visitors. Central is a financial area with a high concentration of luxury goods and high fashion in, for example, the Pacific Place and Landmark malls as well as the International Finance Centre. Hollywood Road in Central offers a different shopping experience with antiques shops, art galleries, fashion boutiques and chic eateries. Causeway Bay is a microcosm of Hong Kong's shopping scene, with upmarket fashion, mid-price and luxury goods, affordable youth fashion boutiques and bargains galore. Sheung Wan offers shopping experiences with traditional businesses, such as handicraft shops, pungent products and antique shops. Wan Chai is a neighbourhood for buying furniture, offload garments, gadgets and toys. The central urban areas of Hong Kong contain most of the popular shopping, nightclub and restaurant districts. Most tourist attractions also concentrate in the downtown areas of Kowloon and Hong Kong Island (Lau and McKercher, 2006).

In the New Territories outside the downtown area, several areas such as Sheung Shui, Tuen Mun and Sha Tin in the northern parts of Hong Kong and close to the Shenzhen border, have become hubs for Mainland parallel traders to re-export bulk quantities of daily goods like infant formula and household products. Tsuen Wan is located in western Hong Kong outside the downtown area and is one of the most densely populated neighbourhoods. Tsuen Wan offers accommodation for visitors with relatively lower prices than downtown area. This area also offers other facilities for Mainland Chinese visitors, such as taking a coach to Shenzhen.

The Airport is a hot spot because it is a transportation hub as well as for regional air cargos and passengers (Tsui, Yuen & Fung, 2018). Disneyland and Ocean Park are hot spots because they are amusement theme parks for visitors. However, Ocean Park is not a hot spot for day trippers from Shenzhen. The reason may lie in the fact that day trippers from Shenzhen prefer not to travel longer distances for amusement purposes.

By comparing the hot spots of the four groups (see Figure 3.5 and 3.6), we can see that the activity areas have some differences. Except for The Airport and Disneyland Resort, the hot spots of visitors from Mainland China were all concentrated in central urban areas, whereas visitors from Shenzhen also extended to the New Territories. For example, Sha Tin in the New Territories was only a hot spot for visitors from Shenzhen (*Ds and Ts*). Furthermore, comparing tourists and day trippers from Shenzhen, the activity radius of day trippers (*Ds*) was closer to the border between Hong Kong and Shenzhen than of tourists (*Ts*). Furthermore, for visitors from Shenzhen goes that

day trippers have more hotspots than tourists, whereas this relation is the other way around for visitors from the rest of Mainland China.

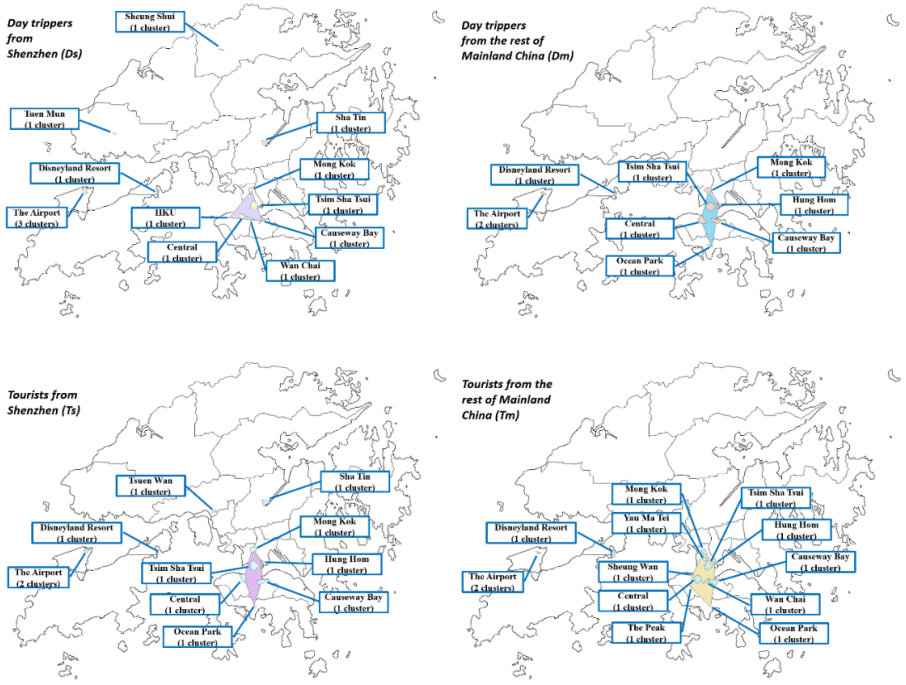


Figure 3.6 First- and second-order hot spots of four groups in Hong Kong using nearest neighbour hierarchical clustering method

Generally speaking, visitors from near the border seem to visit more diverse sub-areas of Hong Kong than visitors from further away. Cross-border shoppers from Shenzhen visit for example border towns like Sheung Shui and Tuen Mun but also Sha Tin. The activities seem oriented towards utilitarian shopping with a focus on saving travel time and costs. Such utilitarian shopping, including the shopping for daily goods, is often an important part of cross-border mobility, also in the Hong Kong context (Lau et al., 2005; Wang, 2004; Yeung & Yee, 2012). By contrast, visitors from the rest of Mainland China mainly concentrate on downtown areas, including Ocean Park, Hung Hom, Tsim Shai and Central, which are related to a variety of leisure activities. These areas often comprise a mix of cultural, catering, entertainment and retail facilities – making them appealing for the performance of recreational shopping which is also a more

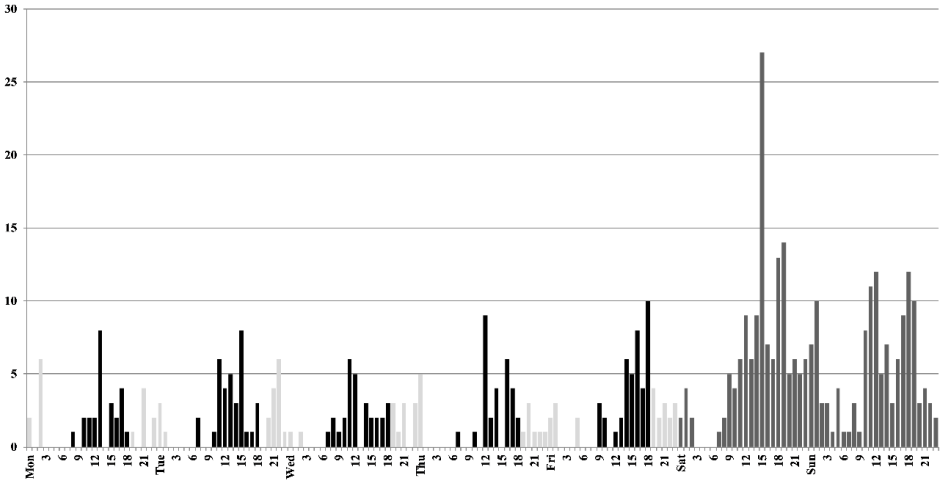
important visiting motive for people living further away from the border (Spierings & Van der Velde, 2013; Szytniewski & Spierings, 2018).

3.4.4 TEMPORAL ANALYSIS

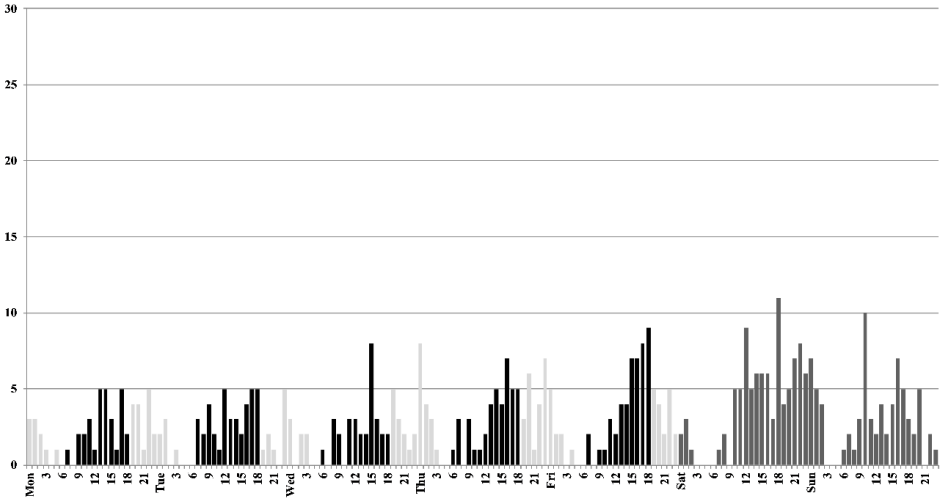
Because activity patterns of day trippers and tourists can not only be concentrated or dispersed in space but also in time we will now turn to the temporal patterns of visits. The latter can be studied on Weibo using time of the day or week (Figure 3.7). Comparing weekdays and weekends, it shows that day trippers (*Ds and Dm*) were usually more active on weekends than weekdays, day trippers from Shenzhen in particular. By contrast, check-ins of tourists (*Ts and Tm*) were more evenly distributed over the week. Furthermore, comparing daytime and night-time, we found that day trippers (*Ds and Dm*) are usually more active during daytime than night-time, day trippers from Shenzhen in particular. By contrast, checks-in of tourists (*Ts and Tm*) were more evenly distributed over daytime and night-time during the week.

The temporal concentration of day trippers' activities during the weekends as well as daytime may be explained by the fact that short visits often take place during the weekends (Stetic et al., 2011) and that day trippers are travelling homewards in the evening hours. This temporal pattern of concentration is the most prominent for day trippers from Shenzhen which may be related with geographical proximity combined with visa regulations. Tourists usually have a much less limited time-budget for their visits than day trippers. Their lengthy stay in Hong Kong allows for a more equal dispersion of activities of the day and the week. Relatively speaking, tourists from near the border appear more active during the weekends than tourists from further away, on Sunday in particular. Tourists from Shenzhen may undertake more weekend trips due their geographical proximity and the visa policy.

Day trippers from Shenzhen (Ds)



Day trippers from the rest of Mainland China (Dm)



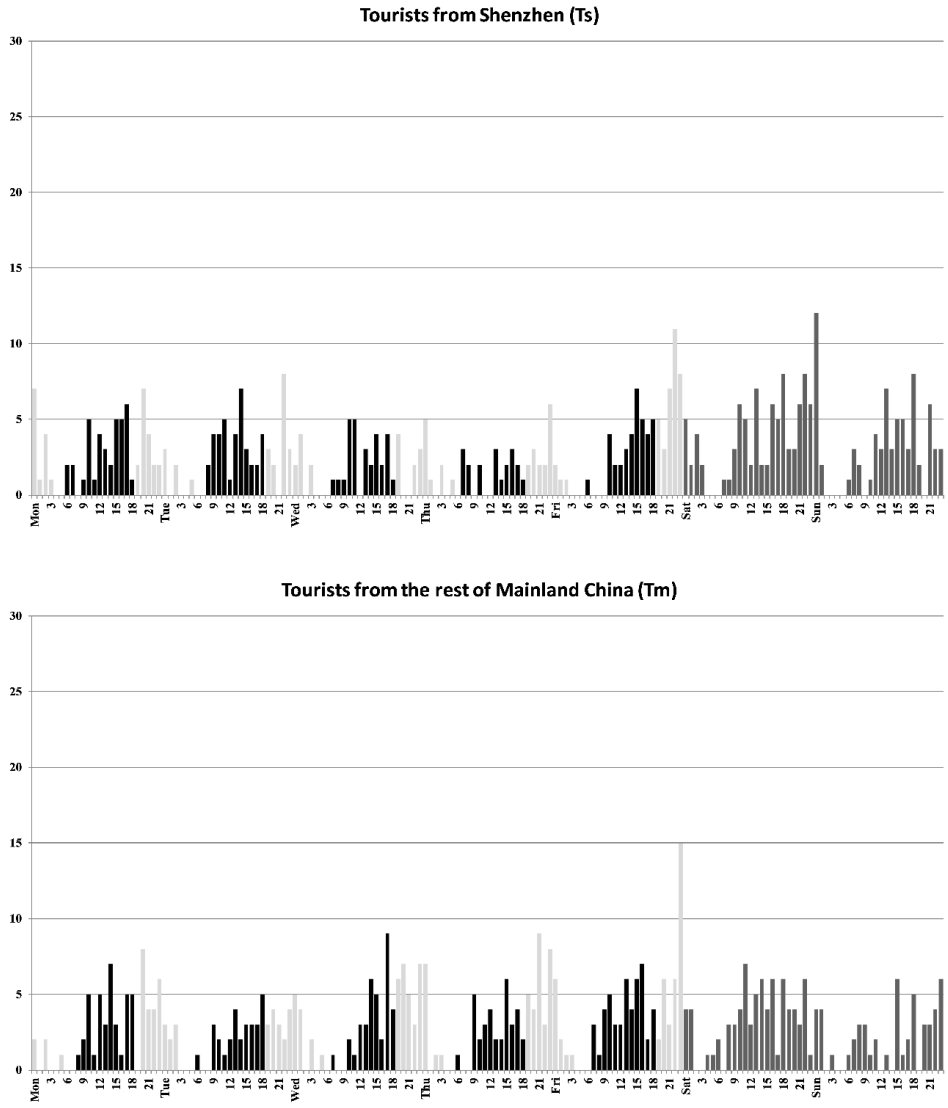


Figure 3.7 Temporal classification of Weibo check-in activity
(Weekday: black, weeknight: off-white, weekend: grey)

3.5 CONCLUSIONS AND DISCUSSION

In this article we analysed the spatio-temporal distribution of day trippers and tourists, from Shenzhen as well as the rest of 20Mainland China, based on the concentration and dispersion of their visits to Hong Kong. These visits were reconstructed from geo-tagged and time-stamped Weibo check-in data, enabling the development of an aggregate perspective on concentration and dispersion at the city scale. This brings new insights that are difficult to gain from more conventional approaches in tourism studies, because a) adequate statistical data on day trippers is limited and often lacking and b) aggregate distribution patterns of different groups of city visitors are not being considered in one study together.

In contrast to previous tourism studies (e.g. Fernández et al., 2016; Prentice et al., 1994; Stetic et al., 2011), our study shows that the aggregate activity pattern of day trippers is more spatially dispersed than the one of tourists. This innovative finding could be derived from Weibo check-in data due to its high temporal resolution – allowing for making a distinction between day trippers and tourists – and its wide spatial reach – allowing for an analysis at the city scale. The higher spatial dispersion of day trippers is most prevalent for the group of visitors from nearby Shenzhen – highlighting the specificity of the border context for spatio-temporal shopping behavior. Segments of day trippers may still visit only a limited selection of the hotspots at the aggregate level, indicating that the findings of this study are not necessarily in contradiction to previous studies on day trippers. The higher dispersion may be related with Hong Kong being mainly visited for shopping purposes, since the ubiquity of shopping opportunities facilitates dispersal – as opposed to much more concentrated opportunities for heritage tourism, for instance. Our findings with respect to the temporal distribution of day trippers at the aggregate level show that their activities are more concentrated during weekends and daytime than visits from tourists, which are more evenly distributed in time over day and week. This temporal concentration is most prevalent for visitors from Shenzhen. Such a concentration in time is supported by existing studies on day trippers (e.g. Stetic et al., 2011).

Our study provides an innovative attempt to distinguish day trippers and tourists into different groups while taking into account the relationship between their origins and the border context – i.e. visitors from nearby the border and from further away. This distinction is important since the behavior and related motives of visitors from Mainland China may differ from that of visitors from neighbouring Shenzhen, just across the border. The results show that hotspots of Mainland Chinese visitors are

mostly concentrated in the downtown areas, largely overlapping with hotspots of visitors from Shenzhen. However, visitors from nearby are potential return visitors and traders, thus generating hotspots closer to the border – day trippers from Shenzhen in particular.

The increase in the ratio of day trippers versus tourists is the corner stone of the 'vicious cycle' model of heritage and cultural city destinations, resulting in the crowding out of tourists towards more peripheral areas beyond the downtown. However, there is a lack of studies working with this model in the context of leisure and shopping. Hong Kong - as an important leisure and shopping destination for Mainland Chinese visitors (Burtenshaw et al., 1991; Ashworth & Page, 2011) – provides us with an excellent case to do so. The above-mentioned findings reveal that the model proposed by Russo (2002) mostly seems to apply for day trippers and tourists from Shenzhen but not so much for visitors from the rest of Mainland China – and that the explanatory scope of the vicious cycle model could be extended into the field of shopping facilities and behavior.

These findings also offer some practical implications for urban tourism planning and management. First, it is important to recognize that shopping motivations may be an important factor in understanding the concentration and dispersion of visitors – mirroring the distribution of shopping facilities in the city to a large extent. Thus, tourism managers and planners may influence the spatio-temporal activity patterns of visitors through developing shopping facilities and promoting shopping activities in 'alternative' and relatively unknown spaces across the city. As the activity pattern of day trippers is more dispersed but still more likely to form local hotspots than of tourists, urban tourism planners and managers may want to target these hotspots to mitigate crowding and related nuisance. This could be done by developing facilities for more 'utilitarian' shopping activities at different locations in the city and promote the use of such facilities in already existing but less-known spaces in the city. Deconcentrating the shopping activities of tourists may be done in a similar way but then with a focus on 'recreational' shopping facilities. Furthermore, special discounts or other financial benefits on weekdays may also be offered to day trippers with the aim to spread their activities in time as well – i.e. beyond the weekend focus. Second, it is important to acknowledge the complexity of a border context in understanding the spatio-temporal distribution of day trippers and tourists – with visitors coming from nearby adding substantially to crowding issues due to their large numbers, the high-frequency of visits and the activities involved. Social media studies distinguishing different groups of visitors, based on length of stay and origin, may assist urban tourism planners and

managers in targeting policies at both specific, 'problematic' groups – including cross-border traders – and the particular places where they tend to concentrate. Crowding and related nuisance for residents in border towns may, for instance, be mitigated by providing specific warehouses for cross-border trading activities close to the border or at other well-accessible sites but located outside these towns.

From a methodological perspective, this paper proposed an approach using location-based social media data to reconstruct visits – enabling a city-wide analysis of origins and visits of tourists and day trippers across space and time. First, an important advantage of this approach is that the check-in data of China's omnipresent platform for social media, Weibo, has a better coverage than conventional questionnaire data. Second, our algorithm allows us to extract geo-tagged and time-stamped data from these check-in records – enabling detailed measures to distinguish between different groups of visitors based on their length of stay and origin. And third, applying geospatial methods to the data enables measuring the level of concentration and dispersion of these different types of visitors, and more importantly to localize their hotspots and learn about potential activities and motives.

Whereas social media data enables new studies and innovative approaches, it also introduces new sources of bias due to selection effects. The representativeness of social media data in China is still a matter of research, yet it is clear that it has a bias with respect to age and other demographic variables (Yuan, Wei & Lu, 2018). Thus, they are difficult to generalize to the Mainland Chinese visitors. Future studies should therefore combine social media data with surveys to correct for known biases to find out whether our results extrapolate (Morstatter & Liu, 2017). Furthermore, our algorithmic approximation of visits by tourists and day trippers rest on the assumption of regular check-in behavior, which may not be met in each case, and should be further tested by independent data sources.

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4

SOCIAL INTERACTIONS BETWEEN VISITORS AND RESIDENTS IN DIFFERENT URBAN SETTINGS OF HONG KONG

This chapter is based on a slightly revised manuscipt resubmitted to a peer-reviewed journal.

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ABSTRACT

The large influx of visitors from Mainland China has led to crowding in Hong Kong's city centre in particular, generating social tensions and conflicts between visitors and residents. Two trends are to some extent counterbalancing the crowding phenomenon: firstly, the decentralisation of visitors aiming to avoid the crowded centre and visiting areas beyond the city centre, including the more peripheral sites and, secondly, so-called 'new urban visitors' seeking to experience authentic city life in local neighbourhoods, often on the edge of or close to the city centre. Several case studies suggest that suburban settings involve relatively less but better interaction for both visitors and residents and that new urban tourism settings involve relatively more and better interaction for visitors but more and worse for residents. This paper systematically compares social interactions between visitors and residents in a city centre area (Central) with a suburban area (Sha Tin) and a new urban tourism area (Mong Kok) in Hong Kong. The results from the visitor perspective are mostly in line with the expectations, only co-presence appeared not to be relatively less in Sha Tin and focused interaction not relatively more in Mong Kok. From the perspective of residents, also as expected, Sha Tin stands out as a place with less co-presence and less focused interaction with visitors, and a higher quality of interaction. However, the expectation that Mong Kok as a new urban tourism area would involve both more co-presence and focused interaction and a lower quality of interaction is not substantiated through our study. Overall, visitors experience a better quality of interactions than residents, but the asymmetry is smaller in the suburban setting.

Keywords: social interactions between visitors and residents; social contact; urban setting; city centre; decentralisation; new urban tourism; Hong Kong

4.1 INTRODUCTION

The large influx of visitors from mainland China, or the so-called 'Chinese visitor wave' (Siu, Lee & Leung, 2013), has brought tremendous changes for Hong Kong. In 2018, the number of arrivals from the mainland reached 51 million and the mainland Chinese market constitutes about 78 percent of the total number of visitor arrivals (HKTB, 2019). The main destination image for mainlanders is Hong Kong as a 'shopping paradise' and, therefore, shopping has also been the most important travel motivation for mainland visitors (e.g. Huang & Hsu, 2005). The increasing number of mainland arrivals has stimulated the urban economy but many shopping malls, historical highlights as well as other facilities and attractions of visitor interest have also become increasingly crowded with mainlanders. This (over)crowding has given rise to complaints from Hong Kong residents regarding implications for their daily lives, including rising rents of apartments, congestion in public spaces and inappropriate behaviors of mainland visitors, and has also generated social tensions and conflicts between visitors and residents in the city (e.g. Yeung & Leung, 2007; Prendergast, Hui, & Yip, 2016).

Two trends are to some extent counterbalancing the crowding phenomenon. One trend is the decentralisation of visitors aiming to avoid the city centre area because of its overcrowding and product standardization. Visitor activity areas therefore expand beyond the city centre, including towards more peripheral sites – as indicated by Russo (2002). In this context, Prendergast et al. (2016) argues that crowding has spread to other, suburban areas in Hong Kong. The Newtown Plaza shopping mall in Sha Tin, for instance, has become saturated with mainlanders shopping for international labels and boutiques. The second and related trend is the rise of so-called 'new urban tourism', meaning that visitors increasingly search for the true identity of cities and authentic experiences occurring in mundane places like cafes, markets and streets. These new urban tourism areas often include local neighbourhoods located on the edge of or close to city centres (e.g. Füller & Michel, 2014; Maitland & Newman, 2004). Both trends are supported and promoted through policies in many visitor destinations across the globe cities with the aim to raise awareness for less busy urban areas of visitor interest and, in so doing, spread the visitor flow more in the entire city and release some pressure of the city centre.

The three types of urban settings discussed above – i.e. city centre area, suburban area and new urban tourism area – attract particular types of visitors, undergo a variety of social and physical changes and involve complex relationships between visitors and residents. Previous studies have analysed social interactions between

visitors and residents in the urban area, the rural area, and the urban-rural fringe (e.g. Gunce, 2003; Pizam, Uriely, & Reichel, 2000; Zhang, Inbakaran & Jackson, 2006; Szytniewski, Spierings & Van der Velde, 2017). However, little attention has been paid so far to examining and comparing social interactions between visitors and residents in different settings within the urban area. Several case studies suggest that new urban tourism areas involve more and better interactions for visitors, but not for residents (e.g. Maitland, 2010; Dai et al., 2017). The city centre area is generally understood as highly frequented by both visitors and residents, resulting in intensive but often also troublesome interactions (e.g. Kotus, Rzeszewski, & Ewertowski, 2015). Suburban areas – villages and towns in particular – often offers opportunities for visitors to encounter residents who provide services for visitors, leading to relatively less interactions (e.g. Prentice, Witt & Wydenbach, 1994; Su, Long, Wall, & Jin, 2016). As such, social interactions between visitors and residents in cities are not homogenous in nature and the different urban settings should be taken into account to acknowledge their contextuality and, in so doing, develop a better understanding of the heterogeneity of the interactive processes taking place.

Furthermore, previous studies on social interactions between visitors and residents have focused on the perspective of either residents or visitors (e.g. Eusébio, João, & Carneiro, 2012; Sinkovics & Penz, 2009; Weaver & Lawton, 2001), while only a few studies have analysed social interactions between visitors and residents from both visitor and resident perspective and focused on attitudes towards each other or perceptions of impacts (e.g. Kastenholz et al., 2013; Su et al., 2016). According to Su et al (2016), evaluating interactions by taking a bilateral approach is important because it enables the further investigation of asymmetry between visitors and residents in terms of the quality of interaction and the types of interaction. This asymmetry is well-known in tourism studies, but rare studies have systematically compared it and, so far, not yet by exploring whether and the extent in which this asymmetry differs between different urban settings.

This paper systematically compares the interactions between Mainland Chinese visitors and Hong Kong residents in a city centre area, a suburban area and a new urban tourism area. In so doing, it contributes to the field of tourism studies in two ways. The first contribution is making a systematic analysis of the geographical contexts of social interactions between visitors and residents, by comparing different urban settings within a city. The second contribution is applying a bilateral approach on interactions by taking both the perspectives of visitors and residents into account and by investigating the asymmetry in visitor and resident experiences between different urban settings.

4.2 THEORETICAL FRAMEWORK

For studies on intergroup relations and interactions in general, the contact theory proposed by Allport (1954) is highly influential. According to Goffman (1967), social contact consists of two types based on the level of contact or interaction which occurs among two or more individuals – i.e. co-presence and focused interaction. Among them, co-presence occurs when two or more individuals aware one another's presence while focused interaction occurs when people gather together and cooperate to sustain a single focus of attention in such situation as conversations and transactions (Goffman, 1967). Islam and Hewstone (1993) add the quality of the contact as an important dimension of social contact, referring to the conditions under which it occurs, and the type of relations involved. This quality is assessed by the following criteria: based on equal or unequal status, involuntary or voluntary, cooperative or competitive, superficial or intimate, and pleasant or unpleasant. Thus, the main dimensions constituting social contact or interaction are extended into co-presence, focused interaction and quality of contact.

Social contact between visitors and residents takes place through multi-dimensional social interactions between visitors and residents, ranging from exchange-based encounters to sharing space without communication (Anastasopoulos, 1992; Sharpley, 2014). For an examination of the underlying dimensions of social interactions between visitors and residents, several studies have applied social contact theory (e.g. Woosnam & Aleshinloye, 2013; Yu & Lee, 2014). In so doing, different types of contact have been considered, making use of the distinction between co-presence and focused interaction as well as by looking at the quality of the interaction. The types of social interactions between visitors and residents have mostly been analysed through measurements of frequencies of co-presence and focused interaction and of activities involved and an assessment of the quality of the interaction (e.g. Andereck, Valentine, Knopf & Vogt, 2005; Huang & Hsu, 2010; Reisinger & Turner, 2002; Weaver & Lawton, 2001). Reisinger (2009), for instance, found that co-presence and focused interaction most frequently occur at visitor attractions and in transaction situations. With a focus on the quality of the interaction, Fan et al. (2017) indicate that an equal, cooperative, intense and friendly interaction creates a favourable relationship between visitors and residents. Eusébio and Carneiro (2012) pinpoint that the frequency and intensity of social interactions between visitors and residents depends on the kind of place or destination where the interactions take place.

Urban tourism destinations usually provide a variety of geographical contexts with

tourism appeal. The heterogeneity of these urban settings in the city may refer to differences of the area's size, their morphological structure, location and functions. With respect to the latter, Cohen (1972) demonstrated that an urban setting could set itself apart from others by tourism attractions embedded. Tourism attractions often have a distinctive spatial distribution in cities which is not to say that these facilities and public spaces are only being used by visitors but not by residents. Moreover, the same areas usually have a variety of other functions that are of interest to and are being used by both groups, including shopping, housing and transportation functions. Visitors and residents increasingly share but also compete for the same facilities and spaces in cities (Pearce, 2001). As such, the urban settings with tourism appeal provide many opportunities for social interaction while, as Reisinger and Turner (2003) also argued, differences between the settings may affect the actual interaction itself.

One typical urban setting for social interactions between visitors and residents is the city centre area. In popular tourism cities, it is often a well-developed area with a concentration of visitor attractions, combined with many and supporting facilities and infrastructures of a high quality. It attracts and concentrates a large number of visitors to visit, experience and perform activities on the traditional 'beaten track' (Kotus, 2015; Popp, 2012). However, with a large and increasing number of visitors flocking in, the city centre may become congested and the goods and services standardized, hampering visitor experiences. As a consequence, as Russo (2002) argued, visitor activities may spatially expand beyond the city centre and into more peripheral sites in the city, or even further, into surrounding villages and towns, as Popp (2012) indicated. Despite the fact that the suburban setting often provides less traditional tourism attractions, the area can still be of visitor interests. As such, a cost-benefit analysis may make suburban areas relatively more attractive and convenient than city centre areas.

Visitor visit the suburban area for several reasons of easy access, saving travel time and overall costs, and usually also spend less time in the area compared with visitors visiting the city centre area (Zhang, Inbakaran & Jackson, 2006). Considering that the longer visitors stay in an area, the more likely interactions with residents will occur (Prentice et al., 1994), visitors in suburban areas may have relatively less co-presence and focussed interaction with residents than visitors in the city centre area. When visiting the suburban area, visitors in the suburban area usually do not have high social or cultural expectations with respect to interactions with residents (De Kadt, 1979; Prentice et al., 1994; Su &Wall, 2010). For that reason, they may be more easily satisfied in terms of the quality of the interaction, potentially resulting in visitors in the suburban area giving a higher assessment of quality than visitors in the city centre area.

From the perspective of residents, both Kastenholz et al. (2013) and Su et al. (2016) found that most residents who had substantial interactions with visitors in the suburban area, a village in particular, were those involved in the tourism industry. These focused interactions tend to rare or short as well as formal and business oriented. Moreover, most of the tourism industries such as retail, nightclubs and restaurants are concentrated in central areas (Lau & McKercher, 2006), thus a larger amount and variety of focused interaction may occur in these areas. As such, residents in suburban areas are assumed to have less focused interaction than residents in the central area and, taking into account relatively higher density of visitors in the city centre area, the same assumption goes for co-presence. For example, visitors in Prague concentrate in the city's historic centre, resulting in processes of crowding (Simpson, 1999), which provides for many opportunities of co-presence between visitors and residents. Regarding the quality of interaction, the assessment is supposed to be higher in the suburban area than in the central area. The latter is popular among mass visitors and when their presence and activities lead to the experience of overcrowding for residents, it may annoy and antagonize them in terms of social interactions between visitors and residents (Zhang, Inbakaran & Jackson, 2006). However, suburban areas usually have lower use levels and are less crowded, which can be assumed to result in a higher quality of interactions for residents.

In addition to the city centre area and the suburban area, another urban setting, is often located on the edge of or close to the historic centre with traditional visitor highlights (Maitland & Newman, 2004). These so-called 'new urban tourism' areas are usually connected to former working-class and post-industrial transitional neighbourhoods (Füller & Michel, 2014). According to Maitland (2010), they provide visitors with traditional and intricate street patterns, various types and styles of buildings, a wide range of small retail and gastronomy, and local people living their everyday life (Maitland, 2010). Being part of mundane and authentic city life is the most important visiting motive of new urban visitors, seeking interactions with residents in their daily life spaces – as a substitute of designated visitor spaces (Dirksmeier & Helbrecht, 2015).

As opposed to mass visitors in the city centre that tend to stay in their 'visitor bubble', new urban visitors show much more interest in interacting with residents in local neighbourhoods (Edensor, 2001). Their more active quests for local experiences in new urban tourism areas can be assumed to result in more interactions with residents (Maitland & Newman, 2014; Maitland, 2010). This is not only the case for focused interaction, as Luo, Brown and Huang (2015) argued, but can also be argued for

co-presence, because being 'in the observation' mode can be an important part of being a new urban visitor (Wildish & Spierings, 2019). At the same time, both types of interaction are likely to occur more when visitors stay in an area longer, as Prentice (1994) argued, and many new urban visitors tend to spend a significant amount time in local neighbourhoods by making use of Airbnb in seeking access to local life. Generally speaking, more focused interaction with residents is positively related with visitors experiencing a higher trip satisfaction (Pizam et al., 2000). For new urban visitors in particular, with both relatively more focused interactions with residents and more importance of these interactions for the trip satisfaction – strengthening the positive relation mentioned above –, we suppose that they give higher assessments of quality of interaction with residents than visitors in city centre areas.

From the perspective of residents, a relatively lower density of visitors in the new urban tourism area not necessarily results in less interactions with visitors. Residents could actually have more interactions with visitors in these settings than in the city centre area because new urban visitors more actively search for focused interaction with and observations of locals, when in co-presence. In an attempt to 'blend in' and behave as a local resident (McCabe, 2005; Uriely, 1997), these visitors appropriate many public spaces while strolling neighbourhood streets and visiting local markets, bars, shops and restaurants (Bock, 2015; Pappalepore et al., 2010; Wildish & Spierings, 2019). It is through this use of residents' mundane and daily life spaces in local neighbourhoods that the latter may perceive and experience more co-presence and focused interaction with new urban visitors. Generally speaking, residents have better attitudes towards alternative visitors than towards mass visitors (Gursoy et al., 2010) but when it comes to their own local neighbourhood, new urban visitors may still be experienced as intrusive (Gu & Ryan, 2008). It may, and increasingly does, raise concerns with respect to excessive commercialization, increasing living costs, large visitor crowds and conflicts between residential and visitor activities (Dai et al., 2017; Dirksmeier & Helbrecht, 2015). Especially because the interactions with visitors take place in mundane and everyday spaces, we will test the assumption that residents experience a lower quality of interaction with visitors in new urban tourism areas than in city centre areas.

Generally speaking, visitors spend more time in public spaces having interactions with residents when visiting cities whereas residents are usually at work (Shaw & Williams, 2004). Moreover, visitors usually are more explorative and aware of their interactions with and experiences of the city whereas residents' interactions and experiences are often based on repetition and routine more (Sutton, 1967). Due to their holiday mood,

visitors generally are also be more positive about the interactions with people and places than the residents of the city (Dirksmeier & Helbrecht, 2015; Simpson, 1999). As such, the interactions as well as assessments of visitors and residents considered to be asymmetrical, which will be further investigated by making a comparison between the different urban settings under scrutiny.

Based on the above, and relative to the city centre area, both visitors and residents in the suburban area are assumed to assess a higher quality of interaction. Taking into account the lower visitor density in the suburban area which usually makes tourism less intrusive, we expect that the asymmetry between visitors and residents is lower than in the city centre area. With respect to the new urban tourism area, and relative to the city centre area, visitors are assumed to give a higher assessment of the quality of interaction while residents are assumed to give a lower quality assessment. This would lead to the expectation that asymmetry between visitors and residents in the new urban tourism area is larger than in the city centre area.

Altogether, the following hypotheses will be tested in this paper: (1) Visitors in the suburban area have less co-presence and focused interaction but experience a higher quality of interaction than in the city centre area; (2) Residents in the suburban area have less co-presence and focused interaction but experience a higher quality of interaction than in the city centre; (3) Visitors in the new urban tourism area have more co-presence and focused interaction and also experience a higher quality of interaction than in the city centre area; (4) Residents in the new urban tourism area have more co-presence and focused interaction but a lower quality of interaction than in the city centre area; (5) The asymmetry between visitors and residents in terms of the quality of interaction is smaller in the suburban area and larger in the new urban tourism area than in the city centre area.

4.3 RESEARCH DESIGN

4.3.1 URBAN SETTINGS

Hong Kong consists of Hong Kong Island, the Kowloon Peninsula, the New Territories (which are connected to mainland China) and over 200 outlying islands, officially divided into 18 districts. The results presented in this article are based on a case study in three different urban areas in Hong Kong – i.e. Central, Sha Tin and Mong Kok. These were selected to represent the typical urban settings of ‘city centre area’, ‘suburban area’ and ‘new urban tourism area’ respectively (Figure 4.1 and 4.2).

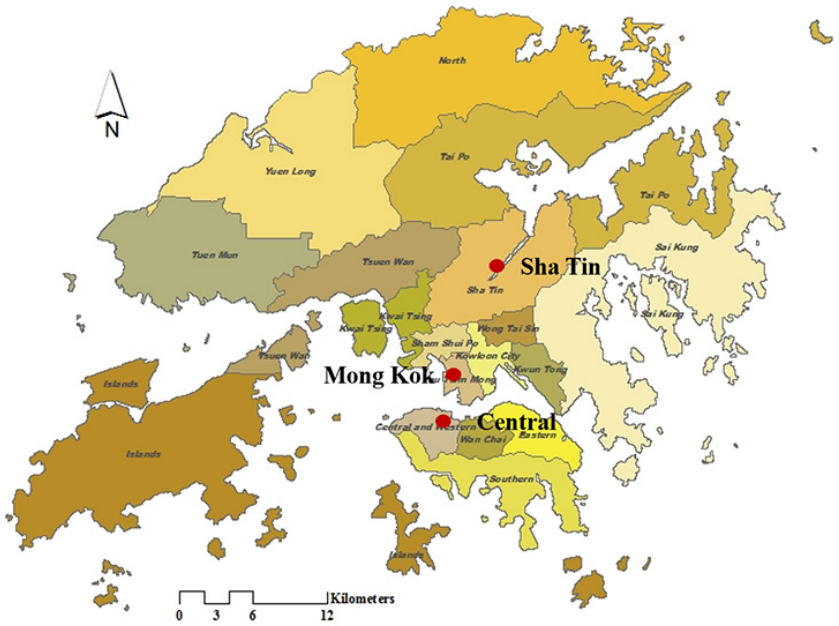

Figure 4.1 Location of the three urban settings studied in Hong Kong with 18 districts

Central contains several clusters of commercial buildings and office buildings together with a variety of tourism-related attractions and facilities, including the Peak Tram, the Mid-Level escalator and the Central Ferry with connections to the outlying islands and Macau, for instance. Central is also the home to a considerable number of residents and many people commute there for work on a daily basis. Sha Tin is one of the new towns in Hong Kong, comprising residential quarters, shopping centres, and a variety of educational, cultural, recreational and sports facilities. It is well-connected to the Shenzhen border and has become a hotspot for visitors from the mainland, including for parallel trading activities. Mong Kok is well-known and popular for its markets, including the Flower market and the Goldfish market, streets with many small stores, street food, historic heritage and popular culture.

With respect to shopping facilities, Central aims at high-end shopping and provides visitors and residents with many shopping malls for luxury shopping, relaxation and entertainment. Sha Tin provides basic goods and services for daily needs as well as

products from international brands with a medium price range but increasingly shifts towards luxury shopping catering for visitors. The New Town Plaza mall is the local place for shopping, dining and recreation in Sha Tin. Mong Kok mainly offers relatively cheap products in street markets, such as Sneakers street (Fa Yuen street) and Ladies' market (Tung Choi street), but also more formal places for shopping, such as the Langham Place mall.

Figure 4.2 Urban settings of social interactions between visitors and residents: Central, Sha Tin and Mong Kok (Source: Photos by first author)

4.3.2 SAMPLING AND DATA COLLECTION

For this study, two survey questionnaires were developed to collect data – i.e. one for mainland Chinese visitors and the other for local residents in Hong Kong. Through a stratified sampling approach, these visitors and residents were divided into three groups respectively. This was done based on whether they visited or live in the three urban settings under scrutiny. After that, survey respondents were selected randomly for each group.

An online survey was conducted with mainland Chinese visitors having visited Central, Mong Kok and/or Sha Tin before. The first question of the visitor questionnaire requested the selection of one of these sites only for further research and each respondent could fill out one questionnaire only. The online survey was conducted in Mandarin by the wjx.cn survey company. The company has a database of 2.6 million people and more than 1 million of them per day fill out the online questionnaires they distribute. Our survey was randomly sent in June 2017 to mainland Chinese living in a variety of mainland cities. The reliability of the online questionnaires received was confirmed by the IP-address of the respondents and the research sample was diverse in terms of gender, age, job status and origin. The acceptance rate of the online survey was about 70%. Altogether, 416 valid questionnaires were collected, with 130 in Central, 121 in Sha Tin and 165 in Mong Kok.

An on-site survey was conducted (in Cantonese) with residents living in Central, Mong Kong or Sha Tin. Residents were approached for participation in the research at these particular sites through a random intercept approach. This resulted in an acceptance rate of 1 out of 7 on average. The fieldwork was undertaken in June 2017 on both weekdays and during the weekends. Altogether, 315 valid questionnaires were collected, with 107 in Central, 96 in Sha Tin and 112 in Mong Kok.

4.3.3 SURVEY QUESTIONNAIRES

In addition to questions about residents' and visitors' demographic characteristics, the meeting places for social interactions between visitors and residents in different urban settings, the survey questionnaires focused on three related dimensions of social interactions between visitors and residents – i.e. co-presence, focused interaction and quality of the interaction. For studying co-presence and focused interaction, a measurement was developed that that simultaneously considers the activities involved and their frequencies. The items measuring the quantitative aspects of co-presence and focused interaction were adopted from the study by Fan et al. (2017) and fine-tuned based on on-site investigations in June 2017. The items measuring qualitative

aspects of interaction were adopted from studies by Huang and Hsu (2010) and Islam and Hewstone (1993). Social interactions between visitors and residents were analysed by using 7-point scales for 23 items related with social interactions. Together, they contained two subscales: 16 items for co-presence and focused interaction and 7 items for the quality of the interaction.

For the frequency of co-presence and focused interaction between visitors and residents, the questionnaire provided answer categories ranging from 1 – representing 'never' – to 7 – representing 'very frequently' – for related activities. Thus, a higher score denotes a higher frequency of interaction. For the related activities themselves a list of 16 items with typical interactional behaviors between visitors and residents (e.g. sitting next to each other, dining in the same restaurant, chatting casually and making friends) was devised. The quality of the interaction was assessed by asking visitors and residents about their feelings and experiences when having interactions with each other (i.e. harmonious, friendly, interesting, equal, cooperative, close and profound). To do so, answer categories ranging from 1 – representing 'strongly disagree' – to 7 – representing 'strongly agree' – were provided. Thus, a higher score denotes a better assessment of quality of interaction.

4.3.4 DATA ANALYSIS

Before analysing the data, missing values were computed through single imputation first. Next, factor analysis was applied in order to explore the dimensions of social interactions between visitors and residents. The factor structure was examined through the varimax-rotated factor analysis. Items with low loadings and cross-loading issues were eliminated. More precisely, following Choo and Petrick (2014), those items with loadings lower than .4 and with loadings higher than .4 on more than one factor were deleted. All items associated with social interactions were extracted into three factors, accounting for 65.933% of the variance in the data. These three factors were in line with dimensions of social interactions between visitors and residents, as discussed in the previous section and the theoretical framework – i.e. co-presence, focused interaction and quality of the interaction. Co-presence (factor 1) consisted of six items (e.g. sitting around, dining in restaurants and taking a bus or subway), focused interaction (factor 2) consisted of six items (e.g. chatting casually, taking photos for locals and making friends) and quality of the interaction (factor 3) consisted of seven items (e.g. harmonious, friendly and equal). Moreover, both the values of the Kaiser-Meyer-Olkin measure is .902 and of the Bartlett's test of sphericity value of 11394.164 ($p < .001$) confirm that our data is suitable for factor analysis. In addition, the value of the Cronbach's alpha (.829), as a measure of scale reliability, suggest that the factors

extracted have relatively high internal consistency.

Demographic characteristics of visitor and resident samples were analysed in terms of age, gender, level of education and amount of monthly income. The meeting places for social interactions between visitors and residents per urban setting in Hong Kong, as indicated by the respondents through answering open questions, were presented in bars charts with frequencies. After that, differences between the city centre, suburban area, new urban tourism area with respect to social interactions between visitors and residents were examined by using the Kruskal-Wallis H test. This is a rank-based nonparametric test that can be used to determine whether there are any statistically significant differences between two or more independent groups. Afterwards, a post hoc test was run on all possible pairs of mean ranks to tell which specific groups are significantly different.

Possible differences between social interactions between visitors and residents in the three urban settings under scrutiny were analysed and compared in three steps. The first step consisted of analysing and comparing the mainland Chinese visitors' interactions with Hong Kong residents and the second step did the same for Hong Kong residents' interactions with mainland Chinese visitors. For the third step, the asymmetry of social interactions between visitors and residents was tested for the different urban settings. Based on our hypotheses, as formulated at the end of the theoretical framework, the Sha Tin as suburban area and Mong Kok as new urban tourism area were compared with Central as city centre area. As such, differences for the comparison between Sha Tin and Central as well as between Mong Kok and Central are presented but not for between Sha Tin and Mong Kok.

4.4 BETWEEN MAINLAND CHINESE VISITORS AND HONG KONG RESIDENTS

4.4.1 DEMOGRAPHIC CHARACTERISTICS OF SAMPLE

The demographic characteristics of the visitors' and residents' sample have been presented in Table 4.1. For the visitors, the gender division is largely similar for all three urban settings (39% males / 61% females) while for the residents it does show some variation – with the largest difference between Sha Tin (45% males) and Mong Kok (61% males). Overall, the visitor sample contains more women / less men than the resident sample in each urban setting. Also, the average age of visitors is largely similar (roughly 32 years) for the three settings while for the residents it shows some variation – with

the largest difference between Sha Tin (27 years) and Central (39 years). On average, residents are older than visitors in Central and Mong Kok but younger in Sha Tin. Most visitors (74% and above) are highly educated, with a bachelor or master's degree. The two highest percentages can be found in Mong Kok (90%) and Sha Tin (93%). Most residents in Central and Sha Tin are highly educated (50.5% and 78% respectively) but mostly have low to medium education in Mong Kok (56%). Overall, the visitors are higher educated than the residents in each urban setting. Most visitors have a medium monthly income, ranging between about 47% in Central to about 69% in Sha Tin. Most residents also have a medium monthly income but the range – between 34% in Central and 46% in Mong Kok – is below that of visitors. However, the resident sample shows higher percentages for high income in each of the urban settings – with the highest percentages in Central (29%) and Mong Kok (35%).

Table 4.1 Demographic characteristics of visitors and residents per urban setting

Demographics		Central (% of respondents)		Sha Tin (% of respondents)		Mong Kok (% of respondents)	
		Visitor	Resident	Visitor	Resident	Visitor	Resident
Gender	Male	39.2	49.5	38.8	44.8	39.4	60.7
	Female	60.8	50.5	61.2	55.2	60.6	39.3
Age	Average	32.27	38.9	32.12	27.34	30.92	34.87
Education	College or below	26.2	49.5	6.6	21.9	10.3	56.3
	Bachelor	38.5	45.8	62.8	63.5	60.0	37.5
	Master or above	35.4	4.7	30.6	14.6	29.7	6.3
Monthly income*	Low	37.7	37.4	18.2	47.9	35.8	17.9
	Medium	46.9	33.6	69.4	35.4	54.5	46.4
	High	15.4	29.0	12.4	16.7	9.7	35.7
Total		130	107	121	96	165	112

Note: Monthly income*: Visitor (Less than 8.000 RMB / 8001-16000 RMB / More than 16.000 RMB), Resident (Below 10.000 HKD / 10.000-20.000 HKD / More than 20.000 HKD).

4.4.2 MEETING PLACES FOR SOCIAL INTERACTIONS BETWEEN VISITORS AND RESIDENTS

The (semi-)public spaces where visitors and residents meet and interact are presented in Figure 4.3. From the visitor perspective, the main meeting places (>10%) are similar for all three urban settings – i.e. the shopping mall, the park, the street and the restaurant. To some extent, the shopping mall stands out in Sha Tin (48%), followed by Mong Kok (39%) and Central (33%). The highest scores for the park, street and restaurant can be found in Central (18%), in Mong Kok (16%) and Sha Tin (26%) but the differences are small compared with the other urban settings. Reflecting the geographical context of each setting, some specific meeting places can also be noticed – i.e. the harbour in

Central, the station in Sha Tin and the market in Mong Kok.

From the perspective of residents, there is a striking difference in terms of the diversity of meeting places in the urban settings. The largest differences can be found when comparing Mong Kok with Sha Tin, with Central in an intermediate position. In Mong Kok, the main meeting places (>10%) are the shopping mall (29%), the market (17%), the street (14%) and everywhere (17%). In Central, the main meeting places are the shopping mall (50%) and the street (14%). For Sha Tin, the shopping mall clearly stands out as the most important meeting place with a score of 77%. Once again, some specific meeting places reflecting the geographical context of each setting can be noticed – i.e. the pier in Central, the station but also the cultural centre, museum and university in Sha Tin, and the market in Mong Kok.

Altogether, the shopping mall is indicated as the main meeting place from both perspectives in each urban setting. At the same time, interesting differences can be found when comparing the two perspectives – e.g. the park being an important meeting place in Central according to visitors but not to residents and the same for the restaurant in Sha Tin and the market in Mong Kok.

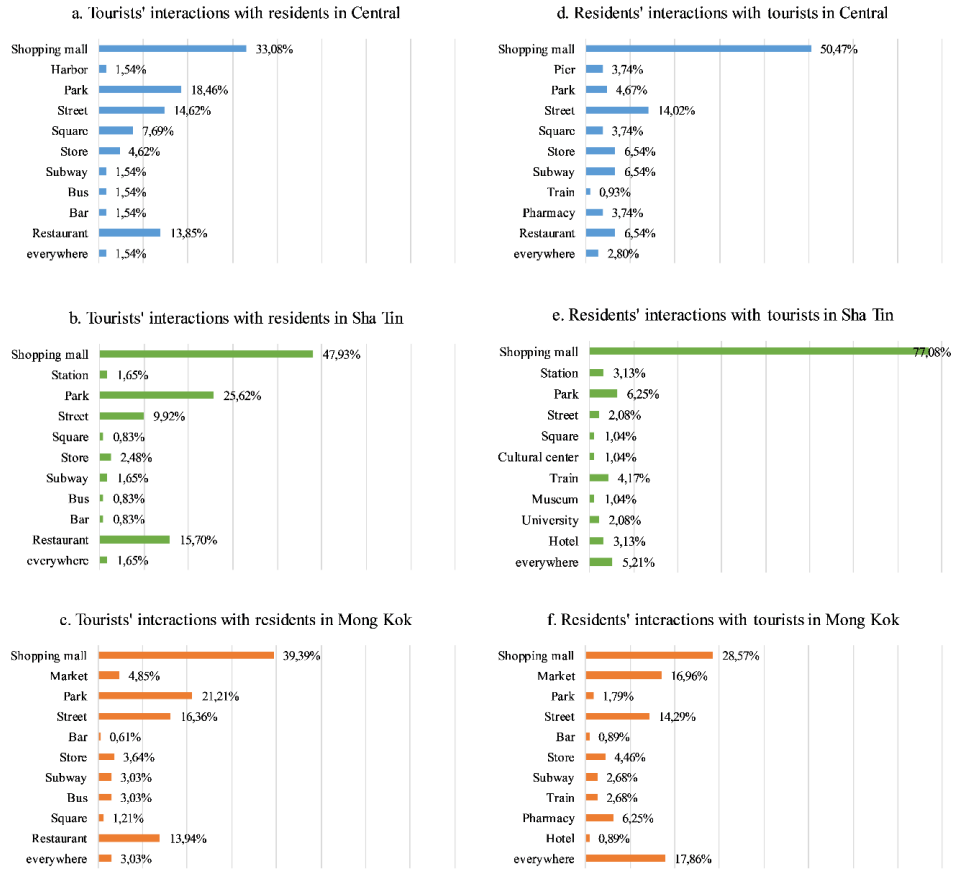

Figure 4.3 Meeting places for social interactions between visitors and residents in Central, Sha Tin and Mong Kok

4.4.3 VISITORS' INTERACTIONS WITH RESIDENTS

The results for mainland Chinese visitors' interactions with Hong Kong residents in Central, Sha Tin and Mong Kok can be found in Table 4.2. Looking at the median scores (M) reveals that, overall, visitors had more co-presence (≥ 4) than focused interaction with residents (≤ 4). The most frequent activities of co-presence include walking on roads and taking a bus or subway (M=6). The most frequent activities of focused interaction include chatting casually (M=4) and the least frequent activities include being invited to the home by residents (M=2). All median scores for quality are 5, indicating that overall the quality of interaction was assessed as good.

When comparing the different urban settings, the Kruskal-Wallis test statistics reveal

significant differences for co-presence for both pairs of settings, with a mean rank score of 147.38 for Central, 250.36 for Sha Tin and 225.95 for Mong Kok. This is not consistent with the hypothesis that visitors in the suburban area have less co-presence than in the city centre area. In that respect, shopping stands out for Sha Tin as co-presence activity – with a significant difference with Central – which may be performed relatively more by visitors in, for instance, the shopping mall (Figure 4.3b). The results are consistent with the hypothesis that visitors in new urban tourism area have more co-presence than in the city centre area. In that respect, wandering in the area stands out for Mong Kok as co-presence activity – with a significant difference with Central – which may be performed relatively more by visitors when observing local life in, for instance, the shopping mall, park or streets (Figure 4.3c).

For focused interaction, the Kruskal-Wallis test statistics also reveal significant differences between Central and Mong Kok, with a mean rank score of 227.18 for Central, 225.73 for Sha Tin and 181.15 for Mong Kok. While the difference is not significant, it is consistent with the hypothesis that visitors in the suburban area have less focused interaction than in the city centre area. In that respect, taking photos for residents stands out for Sha Tin as co-presence activity – although without a significant difference with Central – which is performed relatively less in, for instance, the shopping mall, park or street (Figure 4.3b). The results are not consistent with the hypothesis that visitors in the new urban tourism area have more focused interaction than in the city centre area. In that respect, making friends stands out for Mong Kok as a focused interaction activity – with a significant difference with Central – which may be performed relatively less when visiting, for instance, the shopping mall, park or street (Figure 4.3c).

For quality, significant differences show but only between Central and Sha Tin, with a mean rank score of 191.09 of Central, 228.79 for Sha Tin and 207.34 for Mong Kok. This is consistent with the hypothesis that visitors in the suburban area perceive a higher quality of the interaction than in the city centre area. In that respect, close stands out for Sha Tin – without a significant difference with Central – as a relatively higher quality of interactions with residents taking place in, for instance, the shopping mall, park or restaurant (Figure 4.3b). While the difference is not significant, the results are also consistent with the hypothesis that visitors in the new urban tourism area perceive a relatively higher quality of the interaction than in the city centre. In that respect, friendly stands out for Mong Kok – without a significant difference with Central – as a relatively higher assessment of interactions taking place with residents in, for instance, the shopping mall, park or restaurant (Figure 4.3c).

Table 4.2 Kruskal-Wallis test statistics for visitors' interactions with residents in three urban settings (C-Central, ST-Sha Tin, MK-Mong Kok)

Interactions	Median	Mean Rank			K-W test statistics	Pairwise comparisons
		Central	Sha Tin	Mong Kok		
Co-presence[a]		***147.38***	***250.36***	***225.95***	***51.734****	***C-ST/C-MK***
Sitting around	4	180.35	237.69	209.27	14.773*	C-ST
Dining in restaurants	5	173.43	232.12	218.81	17.542*	C-ST/C-MK
Walking on roads	6	153.91	235.40	231.78	41.519*	C-ST/C-MK
Wandering in the area	6	150.83	233.78	235.40	45.474*	C-ST/C-MK
Taking a bus or subway	6	157.39	243.54	223.07	38.141*	C-ST/C-MK
Shopping	5	149.37	251.72	223.40	51.342*	C-ST/C-MK
Focused interaction[a]		***227.18***	***225.73***	***181.15***	***14.164****	***C-MK***
Chatting casually	4	205.44	230.13	195.05	6.237	
Having photos taken by residents	4	200.74	236.53	194.06	9.728	
Taking photos for residents	2	234.07	209.53	187.60	11.738*	C-MK
Bargaining	4	211.89	219.22	197.97	2.391	
Making friends	2	233.64	217.71	181.94	15.186*	C-MK
Inviting to home	2	235.90	211.25	184.89	14.329*	C-MK
Quality[b]		***191.09***	***228.79***	***207.34***	***6.185****	***C-ST***
Harmonious	5	198.27	224.55	204.79	3.430	
Friendly	5	197.89	217.33	210.38	1.788	
Interesting	5	199.29	228.67	200.96	5.048	
Equal	5	194.70	222.43	209.15	3.494	
Cooperative	5	201.20	224.95	202.19	3.335	
Close	5	194.66	226.05	206.53	4.522	
Profound	5	197.49	224.49	205.45	3.495	

Note: [a] Each item was asked on a 7-point Likert scale where 1 = '*Never*' and 7 = '*Daily*'.
[b] Each item was asked on a 7-point Likert scale where 1 = 'Strongly disagree' and 7 = 'Strongly agree'.
*Asymptotic significances (2-sided tests) are displayed. The difference is significant at the 0.05 level. Significance values have been adjusted by the Bonferroni correction for multiple tests.

4.4.4 RESIDENTS' INTERACTIONS WITH VISITORS

The results for Hong Kong residents' interactions with mainland Chinese visitors' interactions in Central, Sha Tin and Mong Kok can be found in Table 3. Looking at the median scores (M) reveals that, overall, residents had more co-presence (≥ 5) than focused interaction (≤ 3) with visitors. The most frequent activities of co-presence include walking on roads and shopping (M=6). The most frequent activities of focused interaction include chatting casually (M=3) and the least frequent activities include inviting visitors to the home (M=1). All median scores quality are 4, indicating that overall the quality of interaction was assessed as sufficient.

When comparing the different urban settings pairwise, the Kruskal-Wallis test statistics reveal significant differences for co-presence but only between Central and Sha Tin, with a mean rank score of 169.89 for Central, 136.82 for Sha Tin and 164.82 for Mong Kok. This is consistent with the hypothesis that residents in the suburban area have less

co-presence than in the city centre area. In that respect, wandering in the area stands out for Sha Tin as co-presence activity – with significant differences with Central – which may be performed relatively less by residents in, for instance, the shopping mall (Figure 4.3e). While the difference is not significant, the results is not consistent with the hypothesis that residents in the new urban tourism area have more co-presence than in the city centre area. In that respect, sitting around stands out for Mong Kok as co-presence activity – with significant differences with Central – which may be performed relatively less when residents are living their local life while spending time in, for instance, the shopping mall and street (Figure 4.3f).

For focused interaction, the Kruskal-Wallis test statistics do not reveal significant differences between urban settings, with a mean rank score of 163.92 for Central, 162.51 for Sha Tin and 148.48 for Mong Kok. The difference is not significant, but it supports the hypothesis that residents in the suburban area have less focused interaction than in the city centre area. In that respect, inviting to the home stands out for Sha Tin as a focused activity – with a significant difference with central – which may be performed relatively less by residents when encountering visitors in, for instance, the shopping mall (Figure 4.3e). While the difference is not significant, the results are not consistent with the hypothesis that residents in the new urban tourism area have more focused interaction than in the city centre. In that respect, photo taking for visitors stands out for Mong Kok as a focused interaction activity – without a significant difference with Central – which may be performed relatively less by residents in, for instance, the shopping mall (Figure 4.3f).

For quality, significant differences show but only between Central and Sha Tin, with a mean rank score of 140.50 for Central, 176.44 for Sha Tin and 158.92 for Mong Kok. This is consistent with the hypothesis that residents in the suburban area perceive a higher quality of the interaction than in the city centre area. In that respect, cooperative stands out for Sha Tin – with a significant difference with Central – as a relatively higher quality of interaction with visitors taking place in, for instance, the shopping mall (Figure 4.3e). While the difference is not significant, the results are not consistent with the hypothesis that residents in the new urban tourism area perceive a lower quality of interaction than in the city centre. In that respect, profound stands out for Mong Kok – without a significant difference with Central – as a relatively higher quality of interactions taking place with visitors in, for instance, the shopping mall, market or street (Figure 4.3f).

Table 4.3 Kruskal-Wallis test statistics for residents' interactions with visitors in three urban settings (C-Central, ST-Sha Tin, MK-Mong Kok)

Interactions	Median	Mean Rank			K-W test statistics	Pairwise comparisons
		Central	Sha Tin	Mong Kok		
Co-presence[a]		***169.86***	***136.82***	***164.82***	***7.633****	***C-ST***
Sitting around	5	180.93	149.39	143.48	11.001*	C-MK/C-ST
Dining in restaurants	5	158.83	140.81	171.94	6.393	
Walking on roads	6	165.59	141.88	164.57	4.640	
Wandering in the area	6	172.50	131.29	167.04	12.790*	C-ST
Taking a bus or subway	5	150.15	146.52	175.33	6.637	
Shopping	6	169.77	145.42	157.54	3.793	
Focused interaction[a]		***163.92***	***162.51***	***148.48***	***1.910***	
Chatting casually	3	164.07	152.71	156.73	.850	
Taking photos for visitors	3	170.77	159.24	144.74	4.650	
Having photos taken by visitors	2	154.72	172.91	148.35	4.263	
Bargaining	1	159.63	161.54	153.41	.548	
Making friends	1	136.06	186.95	154.14	18.965*	C-ST
Inviting to home	1	139.82	174.57	161.17	10.949*	C-ST
Quality[b]		***140.50***	***176.44***	***158.92***	***7.898****	***C-ST***
Harmonious	4	143.98	175.58	156.33	6.508*	C-ST
Friendly	4	145.36	171.72	158.32	4.514	
Interesting	4	143.58	174.38	157.74	6.080*	C-ST
Equal	4	134.80	183.46	158.34	15.168*	C-ST
Cooperative	4	143.23	192.79	142.29	21.016*	C-ST
Close	4	145.90	170.86	158.54	3.982	
Profound	4	136.26	175.96	163.38	10.895*	C-ST

Note: [a] Each item was asked on a 7-point Likert scale where 1 = 'Never' and 7 = 'Daily'.
[b] Each item was asked on a 7-point Likert scale where 1 = 'Strongly disagree' and 7 = 'Strongly agree'.
*Asymptotic significances (2-sided tests) are displayed. The difference is significant at the 0.05 level. Significance values have been adjusted by the Bonferroni correction for multiple tests

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4.4.5 THE ASYMMETRY IN QUALITY OF SOCIAL INTERACTIONS BETWEEN VISITORS AND RESIDENTS

The results for the asymmetry in the quality of interactions between visitors and residents in different urban settings can be found in Table 4. Overall, the Kruskal Wallis test statistics suggest that there are significant differences in the quality of interaction among Central, Sha Tin and Mong Kok. Looking at the mean rank scores reveals that visitors experienced a higher quality of interaction than residents in each of the urban settings. Moreover, the asymmetry in the quality of social interactions appears to be the largest in Central (*23.811*) and the smallest in Sha Tin (*18.279*) with Mong Kok (*22.086*) taking a somewhat intermediate position. This is partly consistent with the hypothesis that the asymmetry between visitors and residents in terms of the quality of interaction is smaller in the suburban area and larger in the new urban tourism area than in the city centre area.

Table 4.4 Kruskal-Wallis test statistics for comparing quality of interactions in three urban settings

Quality of interaction	Central			Sha Tin			Mong Kok		
	Visitor	Resident	K-W test statistics	Visitor	Resident	K-W test statistics	Visitor	Resident	K-W test statistics
	138.72	***95.05***	***23.811****	***125.23***	***88.54***	***18.279****	***157.64***	***111.54***	***22.086****
Harmonious	141.19	92.04	32.299*	124.51	89.45	17.644*	156.84	112.72	20.995*
Friendly	139.69	93.86	27.831*	123.50	90.73	15.202*	157.74	111.39	23.138*
Interesting	139.62	93.95	27.595*	122.11	92.48	12.618*	153.23	118.03	13.378*
Equal	135.75	98.65	18.097*	116.93	99.01	4.623*	152.03	119.80	11.198*
Cooperative	140.25	93.19	29.013*	117.42	98.39	5.149*	162.05	105.04	35.038*
Close	135.87	98.50	18.361*	124.00	90.10	16.251*	153.92	117.02	14.608*
Profound	136.69	97.51	20.252*	122.58	91.89	13.488*	150.50	122.06	8.756*

Note: Each item was asked on a 7-point Likert scale where 1 = 'Strongly disagree' and 7 = 'Strongly agree'.
*Asymptotic significances (2-sided tests) are displayed. The difference is significant at the 0.05 level. Significance values have been adjusted by the Bonferroni correction for multiple tests.

4.5 CONCLUSIONS AND DISCUSSION

This article systematically analysed interactions between Mainland Chinese visitors and Hong Kong residents in Central as city centre area, Sha Tin as suburban area and Mong Kok as new urban tourism area. In so doing, we build on the argument by Reisinger and Turner (2003) that the differences between urban settings may affect the actual interactions taking place and contribute to the field of tourism by comparing three typical settings for social interactions within the urban area. Moreover, in line with previous studies (e.g. Fan et al., 2017; Sharpley, 2014; Yu & Lee, 2014), three dimensions of social interactions between visitors and residents were examined – i.e. co-presence, focused interaction and quality of interaction. In so doing, another contribution is made to the field of tourism by taking both the perspectives of visitors and residents into account and comparing them for the different urban settings. Moreover, the asymmetry in quality of interaction between visitors and residents is tested in three urban settings. The results for asymmetry echo previous literature (e.g. Sutton, 1967; Su et al., 2016). The gap in the symmetry is further examined in diverse urban settings, which extends the well-known asymmetry between the two parties.

The results from the visitor perspective show that, as expected, less focused interaction occurs in Sha Tin as suburban setting, compared with Central as city centre setting, and the quality of interaction is higher there. However, contrary to expectations, it is not the case that relatively less co-presence occurs in Sha Tin. This may be explained by visitors spending more time in Sha Tin than assumed, resulting in more co-presence with residents. For instance, visitors could be spending quite some time in the area while waiting for a transport connection back to the mainland and, in so doing, hang

out in the park, stroll the streets, dine in the restaurants and shop in the mall. For Mong Kok, as expected, more co-presence seems to occur, and the quality of interaction appears to be higher than in Central. However, contrary to expectations, focused interaction does not seem to occur more than in Central. This may be explained by new urban visitors often being in an 'observation mode' – as Wildish and Spierings (2019) also indicated – when aiming to experience mundane and authentic city life. At the same time, the high and increasing popularity of Mong Kok among visitors may potentially make the area closer to providing a city centre setting than a new urban tourism setting.

The results from the resident perspective show that, as expected, less co-presence and less focused interaction take place in Sha Tin as suburban setting, compared with Central as city centre setting, and the quality of interaction is higher there. For Mong Kok, contrary to expectations, more co-presence and focused interaction than in Central do not occur and the quality of interaction does not seem to be lower either. Overall, visitors experience a better quality of interactions than residents, but the asymmetry in the quality between visitors and residents is smaller in the suburban area, followed by new urban tourism area and city centre area. As such, the assumption that a new urban tourism area would involve more interactions and worse experiences for residents is not substantiated through our study.

An important starting point of this study involved two related trends that to some extent counterbalance the crowding problem in the city centre. The first trend is the decentralisation of visitors towards areas beyond the city centre, including towards more peripheral sites. The second trend involves new urban visitors visiting local neighbourhoods on the edge of or close to the city centre. Many visitor destinations, including Hong Kong, suffering from overcrowding support and promote both trends with the aim to spread the visitor flow more in the entire city and release some pressure of the city centre. In this context, the findings of this study offer some practical insights for tourism planning and management. Most importantly, marketing relatively unknown visitor facilities in as well as their redistribution towards suburban and new urban tourism areas to promote visitors visiting these areas may generate a better quality of social interactions between visitors and residents in the city. In fact, our findings suggest that both from the perspective of the visitor and the resident, the quality of interaction is higher in a suburban area and a new urban tourism area than in the city centre area. Once again, the latter finding with respect to the new urban tourism setting – i.e. Mong Kok – is contrary to expectations. This may be because new urban visitors are not experienced as intrusive and/or local residents'

concerns are not as prominent in Mong Kong (yet), compared with studies of other local neighbourhoods in Berlin and Beijing we based the assumption on (Dirksmeier & Helbrecht, 2015; Gu & Ryan, 2008).

For further investigation of social interactions between visitors and residents in different settings within the urban area, we suggest the following. Firstly, more items (e.g. asking information, taking local tours, participating in festivals) with respect to co-presence and focused interaction could be added to the survey questionnaire for a richer analysis of the social interactions between visitors and residents. Secondly, the survey should be repeated every couple of years to investigate potential long-term changes in co-presence, focused interaction and quality of interaction in the urban settings. Thirdly, more individual characteristics of visitors and residents could be included in the survey – including attitudes towards each other, years of residency, whether visitors are first-timer or repeaters, and origin – to provide richer explanations for differences between and among visitors' and residents' activities and experiences in different urban settings across the city.

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5

WHY URBAN SETTING MATTERS IN SHAPING VISITORS' ATTITUDES TOWARDS INTERACTION WITH RESIDENTS: CAUSATION OR SELECTION IN THREE URBAN SETTINGS!

This chapter is based on a manuscript under review for a peer-reviewed journal.

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ABSTRACT

This paper addresses the question why the attitudes of visitors towards the interactions with residents are more positive in some urban settings than others, by comparing three different urban settings within Hong Kong: the city centre (Central), a suburban area (Sha Tin) and a new urban tourism area (Mong Kok). Two competing hypotheses can explain the variation in attitudes. The first is causation; some settings provide more intensive and better contacts which lead to more positive attitudes. The second is selection; some settings attract different types of visitors with different attitudes. Mediation analysis provides weak support for causation and strong support for selection. Sha Tin attracts more repeat visitors, holiday makers and shopping visitors, which have more positive attitudes. Managing growth of tourism is more effective if sub-centres are developed as product-market combinations that distract these visitors from the overcrowded city-centre.

Keywords: Urban setting, visitor attitude, causation, selection, mainland Chinese visitors, Hong Kong

5.1 INTRODUCTION

Urban areas mainly generate the visitors worldwide, at the same time, they receive a substantial proportion of visitors (Ashworth, 1992). The attractions of cities for visitors take shape in diverse urban settings. Many visitors concentrate in the city centre, leading to overcrowding in many destinations. On the supply side, cities have responded by creating alternatives in more suburban settings. On the demand side, some visitors shun the overcrowded areas and engage in new urban tourism settings, seeking for a deeper and more authentic local experience. As a result, new types of urban settings have formed in Hong Kong, entertainment/shopping centres in the suburban districts of the city and new urban tourism areas. It can be hypothesized that these urban settings, will attract different types of visitors and will offer different experiences to visitors, further influencing visitors' attitudes toward interactions with residents. However, whether and how the three urban settings matter in shaping visitor attitudes is unclear.

Previous studies suggest two competing hypotheses explaining the potential relationship between urban setting and visitor attitude towards interaction with residents. The first hypothesis is that diverse urban settings provide different intensities and qualities of social interactions between visitors and residents, as demonstrated by several studies (e.g. Kotus, 2015; Luo, Brown & Huang, 2015; Su et al. 2016). The intensity and quality of the interactions may further influence visitor attitude towards interactions with residents, a matter of causation. The second hypothesis is that diverse urban settings attract different types of visitors with particular characteristics, such as travel purpose (e.g. Zhang, Ryan & Cave, 2016) and visit times such as first-time visitor vs repeater (e.g. Caldeira & Kastenholz, 2018). The visitors visiting different urban settings may hold different attitudes towards interaction with residents, a matter of selection.

The aim of the paper is to test both hypotheses – causation and selection. The dependent variable is visitor attitude towards interaction with residents measured in three urban settings, i.e. the city centre, a suburban setting and a new urban tourism setting. Under the first hypothesis, the effect of the urban setting on the visitor attitude is mediated by social interaction between visitors and residents in the destination. Under the second hypothesis, the effect is mediated by individual characteristics of the visitor that defines their attitudes. Using path regression allows us to statistically test the hypotheses and determine which mediating effects cause the variation in attitudes among the three urban settings.

The mainland Chinese visitors in Hong Kong were selected for this study. Since its return to China in 1997, Hong Kong has drawn a large volume of visitors from mainland China. This visitor flow has spread to different urban areas within Hong Kong due to its variety of urban settings with spatially dispersed visitor attractions. This variety provides the opportunity to answer the question why urban settings matter in shaping the attitudes of mainland Chinese visitors towards interactions with residents in Hong Kong. Causation or selection? This study will contribute to the existing knowledge of tourism studies by testing and comparing the two competing hypotheses across three different urban settings of a city in one study.

5.2 THEORETICAL FRAMEWORK

The city centre as the traditional beaten track has a very high density of visitor activities because the most popular tourism attractions concentrate in this area (Popp, 2012). However, some visitors may choose settings outside the city centre after a benefit-cost evaluation (Russo, 2002). Hong Kong provides several suburban settings with less highlights, but with attractive entertainment and shopping facilities. Additionally, new urban tourism areas have developed, which represent the authentic, everyday life creating new experiences for visitors by offering a mix of cultural difference and consumption opportunities (Maitland, 2010). The various urban settings seem to attract different types of visitors and also offer different intensities and qualities of the interactions between visitors and residents.

The interaction between visitors and residents is a specific type of intergroup relations. Allport's (1954) social contact theory proposes a framework for intergroup relations, suggesting that social contact, under favourable conditions, tends to produce better intergroup attitudes and relations. Cook (1962) identified three relevant dimensions in social contact: types of contact situations, types of individuals in the contact, and the attitudes and behavioural outcomes. Based on these early discussions on social contact theory, Amir (1969) concluded that both contact situation and the individual may influence the attitudinal and behavioural results.

Therefore, two competing hypotheses are proposed in our conceptual model to explain why urban settings matter in shaping visitor attitude towards interactions (Figure 5.1).

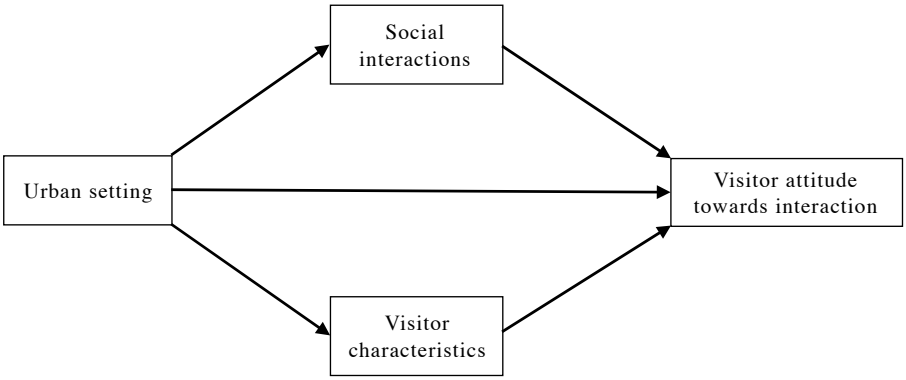

Figure 5.1 Conceptual model

The first hypothesis is causation; diverse urban settings provide different social interactions between visitors and residents, further influencing visitor attitude towards interactions. The second hypothesis is selection; diverse urban settings select different types of visitors with more positive attitudes towards interactions. The more current literature provides support for both hypotheses.

Causation: Diverse urban settings provide different social interactions between visitors and residents, further influencing visitor attitude towards interactions with residents

Due to the differences in size, location, function and to the distinctive spatial distributions of tourism attractions (Shaw & Williams, 2004), urban settings tend to offer different interaction opportunities between visitors and residents. The city centre provides intensive social interactions between visitors and residents (Kotus, 2015) as a result of the high density of visitors' travel and residents' daily activities. The settings outside the city centre usually create more personal opportunities for visitors to interact with residents (e.g. Prentice et al., 1994; Su et al. 2016). In this context, visitors are more likely to achieve less intensive but more satisfactory interactions. New urban tourism areas in particular, are frequented by both visitors and residents and interactions often take place in several public spaces such as restaurants, local markets, cafes or bars (Bock, 2015; Pappalepore et al., 2010). Therefore, this kind of urban setting offers more opportunities for visitors to interact with residents in their daily lives. In their active quest for local experiences in new urban tourism area, visitors assess the quality of interactions with residents as higher than in the city centre (Bock 2015).

Several studies (e.g. Carneiro et al., 2019; Fan et al., 2017; Pizam et al., 2000) suggest that the intensity and quality of the social interactions determines visitors' attitudes towards destination. Some suggest that a higher intensity of social interactions between visitors and residents lead to more positive attitudes of visitors towards residents (Choo & Petrick, 2014; Pizam et al., 2000). Others (Carneiro et al. 2019) indicate that it is the quality of visitors' interaction with residents that is related to increasing positive outcomes or decreasing negative outcomes. Fan et al. (2017) also suggest that interactions only result in a positive relationship under favourable conditions. Based on the above discussion, the causation hypothesis can be formulated as follows:

> *Compared to the city centre, the suburban area provides less intensive but better interactions whereas the new urban tourism area provides more intensive and better interactions. More intensive and better interactions lead to more positive visitor attitudes towards interactions with residents.*

Selection: Diverse urban settings select different types of visitors with more positive attitudes towards interactions with residents

The selection effect specifies that the diverse urban settings attract particular visitors with different characteristics. First, the urban setting may attract visitors with different purposes. The city centre, especially in some European cities such as Venice and Barcelona offer heritage experiences. Areas outside the city centre usually attracts those visitors with less high social or cultural expectations (De Kadt, 1979; Su & Wall, 2010). In Hong Kong the large group of leisure shoppers, can visit suburban areas nearby the border providing shopping facilities but saving travel time and costs. New urban tourism area tends to attract those visitors seeking for encounters with mundane lives and urban experience with locals, places and identities and interested in the presence and activities of locals (Dirksmeier & Helbrecht, 2015; Zhang, Ryan & Cave, 2016). Second, compared to first-time visitors, repeat visitors further explore the destination (e.g. Gitelson & Crompton, 1984; Lau & McKercher, 2006). Lau and McKercher (2006) found that first-time visitors travelled mainly in the city centre whereas repeat visitors travelled widely throughout Hong Kong. Repeat visitors tend to visit more distant and peripheral attractions (Caldeira & Kastenholz, 2018). However, Caldeira & Kastenholz (2018) also indicated that some repeaters focus on specific types of activities and places. Lehto et al. (2004) also found that visitors with more experiences tend to specialize and narrow their activities in visiting places. Therefore, the city centre is more likely to attract first-time visitors, while the suburban and new urban tourism areas tend to attract repeaters. Third, Cohen (1972) proposed a typology of visitors: organized mass visitors, the individual mass visitor, the explorer and the

drifter. The city centre is popular in mass tourism (Matoga & Pawlowska, 2016), so organized tours are more likely to appear in the city centre. In contrast, visitors visiting new urban tourism areas tend to avoid the "visitor bubble" of mass visitors (Luo, Brown & Huang, 2015).

Visitor characteristics may also determine their attitudes towards destination, residents and interactions with residents. Visitors' travel purpose has a direct effect on attitude towards visiting the destination (e.g. Hsu, Cai & Li, 2010; Lam & Hsu, 2004; 2006). Lam and Hsu (2006) found that travel purposes such as sight-seeing and shopping are positively related to visitors' attitudes. Hsu et al. (2010) also suggest that relaxation and shopping positively influence visitor attitude. Repeaters are more satisfied with their trips in the destination that first-time visitors, as demonstrated in several studies (e.g. Jang & Feng, 2007; Petrick & Backman, 2002), and to be more positive about interacting with residents than first-time visitors. Visitors in organized tours seems to hold more positive attitude than others, perhaps because they meet residents that work in the tourism industry in particular (Cohen 1972). Based on the above discussion, the selection hypothesis can be formulated as follows:

> *The city centre, the suburban area and the new urban tourism area attract particular visitors with different travel purposes, visitation status (first-time visitors vs repeaters) and travel companion (e.g. organized tour). Visitors with leisure travel purposes, repeat visitors, and visitors in organized tours are more likely to hold positive attitudes.*

5.3 RESEARCH DESIGN

5.3.1 STUDY SITE

This study was conducted in three urban areas of Hong Kong representing diverse urban settings – i.e. Central as a city centre, Sha Tin as a suburban area and Mong Kok as a new urban tourism area. Central is located in the central urban areas with several concentrated tourism attractions such as Lan Kwai Fong and Victoria Peak. This area is packed with a large number of mainland Chinese visitors. Sha Tin has rapidly developed into a well-planned new town outside the city centre. In recent years, a considerate number of mainland Chinese visitors has emerged in Sha Tin. Mong Kok has many historic buildings and themed streets such as Goldfish market on Tung Choi Street and Bird Garden on Yuen Po Street. Visitors visiting Mong Kok seek the true identity of Hong Kong and locals' authentic lives.

5.3.2 SURVEY INSTRUMENT

A questionnaire was designed with three sets of questions. The first set was to measure visitor characteristics, including visit status, travel companion and travel purpose. The second set included social interactions and visitor attitude towards interaction with residents. The third set was respondents' socio-demographic characteristics, including gender, age, education level and monthly income. Among them, the items measuring social interactions between visitors and residents were adopted from literature (Fan et al., 2017; Huang & Hsu, 2010; Islam & Hewstone, 1993; Reisinger & Turner, 1998) and on-site observation on June of 2017. Visitors were asked to indicate how frequent (on a 7-point scale of never to very frequently) they interacted with residents in a checklist of interaction activities (16 items) and quality of interaction on a 7-point scale from strongly disagree to strongly agree (7 items). Visitor attitude towards interaction with residents was measured with a three-point ranking scale, with 0 representing "negative", 1 for "neutral" and 2 for "positive". The measurement item of visitor attitude towards social interactions between visitors and residents were adopted from Su et al. (2016). Specifically, respondent was asked the question: "What is your general opinion about interactions with Hong Kong residents?"

5.3.3 DATA COLLECTION, SAMPLING AND SAMPLE PROFILE

The survey was conducted in June 2017. It targeted visitors from mainland China visiting three urban settings in Hong Kong: Central, Sha Tin and Mong Kok. A stratified sampling approach was used to categorize visitors into three groups. Because of the extremely high rejection rate in an on-site survey for mainland Chinese visitors in Hong Kong, we switched to an online survey, conducted by the largest online survey company (wjx.cn) in mainland China. The survey was randomly sent to mainland Chinese with different age, gender, education, job status and origin. The first question selected the respondents that had visited one of the three areas in Hong Kong. The final sample consists of 130 individuals in Central, 121 individuals in Sha Tin and 165 individuals in Mong Kok.

The demographic characteristics of the respondents are provided in Table 5.1. The majority of visitors are female (60.8%) and the largest proportion falls in the age range of 30-39 (48.1%). Most are relatively well educated with more than 80% holding at least a bachelor's degree. A large proportion (56.5%) have a monthly income between 8.001 and 16.000 RMB.

Regarding visitor characteristics (visit status, travel companion, length of stay and travel purpose), the majority are repeaters (69.7%). Most respondents are traveling with

their family members or relatives or friends (53.6%), followed by traveling in organized groups (25.0%) and travelling alone (19.7%). In terms of travel purpose (multiple choices), visitors visit Hong Kong for sight-seeing (79.3%), holiday (61.3%) and shopping (36.1%).

Table 5.1 Descriptive Summary of Sample

Demographic		Frequency	Percentage (%)			Frequency	Percentage (%)
Gender	Male	163	39.2	**Visit status**	First-time	126	30.3
	Female	253	60.8		Repeater	290	69.7
Age	18-29	177	42.5	**Travel companion**	Alone	82	19.7
	30-39	236	48.1		Family/ relatives/friends	223	53.6
	40-49	30	7.2		Organized groups	104	25.0
	50-59	6	1.5		Others	7	1.7
	60 plus	3	0.7	**Travel purpose***	Sight-seeing	330	79.3
Education	Below Bachelor	59	14.2		Business/ Conference	59	14.2
	Bachelor's degree	225	54.1		Holiday	255	61.3
	Master or above	132	31.7		Visiting relatives/friends	41	9.9
					Shopping	150	36.1
Monthly income	Less than 8.000 RMB	130	31.3		Others	28	6.7
	8001-16000 RMB	235	56.5	**Locality**	Central	130	31.2
	More than 16.000 RMB	51	12.3		Sha Tin	121	29.1
					Mong Kok	165	39.7

Note: *Travel purpose are multiple choices that visitors may have more than one option.

5.3.4 DATA ANALYSIS

Prior to data analysis, missing values in the final sample were replaced through single imputation (Rubin, 1976). Next, factor analysis was used to identify the dimensional structure of social interactions between visitors and residents. Then, mediation analysis was applied to test the two hypotheses. As suggested by many scholars (e.g. Baron & Kenny, 1986; Iacobucci, 2008), mediation analysis is testing hypothetical mechanisms through which an independent variable, urban setting, might elicit a dependent variable, visitor attitude towards interaction with residents, indirectly through the mediating variable, social interaction (causation) or visitor characteristics (selection). In this study, first of all, Kruskal-Wallis tests and cross tabulations were used to analyse the correlation among urban setting, social interactions between visitors and residents,

visitor characteristics and visitor attitude towards interactions. If one or more of these correlations are non-significant, the mediation is not possible. If the urban setting is no longer significant when social interactions or visitor characteristics is controlled, the finding supports full mediation; if the urban setting is still significant, the finding supports partial mediation (MacKinnon, 2008). Several ordinal logistic regressions were applied to analyse visitors' attitudes towards interactions with residents (dependent variable) in three urban settings (independent variable), and whether mediated by social interaction or visitor characteristics. Several assumption tests were applied. According to our results, there is no multicollinearity as all the values of tolerance in independent variables are greater than 0.10 and VIF values are less than 10 (Ott & Longnecker, 2010; Tabachnick & Fidell, 2013). The test of parallel lines indicates that we are not violating the proportional odds assumption.

5.4 RESULTS

The analysis proceeds in a number of steps: first the items on social interactions between visitors and residents are reduced to three dimensions that represent the intensity and the quality of interaction (Table 5.2). Next for the causation mechanism, the correlation between the urban setting and social interactions between visitors and residents, and the correlation between social interactions between visitors and residents and visitor attitude towards interactions with residents are measured using Kruskal-Wallis' test (Table 5.3 & 5.4). Then for selection mechanism, the difference in the composition of visitor characteristics in three urban settings and in visitor attitude towards interactions with residents are measured using cross tabulations (Table 5.5 & 5.6). In the final step, the relation between the urban setting and visitor attitude towards interactions with residents, and the causation or selection mechanism are tested in mediation models (see Table 5.7).

5.4.1 FACTOR ANALYSIS

As shown in Table 5.2, items associated to social interactions between visitors and residents are extracted into three dimensions, all with factor loadings more than 0.4 (Choo & Petrick, 2014). Two dimensions associated with frequency and activity coincide with Goffman's (1967) two levels of social contact – i.e. co-presence (low level of contact) and focused interaction (high level of contact), thus the two dimensions are labelled as co-presence and focused interaction. Another dimension is consistent with quality of contact in previous studies (e.g. Huang & Hsu, 2010; Islam & Hewstone, 1993), labelled as quality of interaction. The three-factor structure is accounting for

65.933% of the variance in the data. High values of KMO (0.906) and Cronbach's alpha (.829) suggest the high validity and reliability of the questionnaire.

Visitors have more co-presence than focused interaction with higher mean scores in a Likert 7-point scale. The quality of interaction for visitors is favourable with all mean scores higher than 4 in a Likert 7-point scale. Besides, the skewness values of all items associated to the interaction are between -1 and -0.5 or between 0.5 and 1, indicating the data is moderately skewed. The kurtosis values are less than 3, indicating the data has few outliers.

Table 5.2 Descriptive statistics for interaction with residents perceived by mainland Chinese visitors

Items associated to interaction	Factor loading	Visitor (N=416)			
		Mean	SD	Skewness	Kurtosis
Co-presence[a]					
(Independent variable in regression analysis)					
Sitting around	.642	4.42	1.517	-.066	-.816
Dining in the restaurants	.815	4.83	1.707	-.557	-.667
Walking on the roads	.892	5.16	1.980	-.822	-.637
Wandering in the area	.900	5.07	1.865	-.790	-.495
Taking bus or subway	.853	5.17	1.868	-.849	-.459
Shopping	.843	4.85	1.892	-.583	-.848
Focused interaction[a]					
(Independent variable in regression analysis)					
Chatting casually	.748	3.63	1.710	.155	-.925
Taking photos for visitors	.733	3.62	1.881	.128	-1.128
Taking photos for locals	.778	2.84	2.029	.777	-.751
Bargain	.571	3.77	1.759	.043	-1.020
Making friends	.834	3.00	1.992	.663	-.828
Inviting to home	.813	2.76	2.038	.902	-.549
Quality[b]					
(Independent variable in regression analysis)					
Harmoniously	.896	5.03	1.487	-.756	.024
Friendly	.904	5.06	1.547	-.713	-.206
Interesting	.879	4.94	1.479	-.641	-.075
Equal	.881	4.88	1.569	-.639	-.316
Cooperative	.802	4.75	1.508	-.497	-.322
Close	.888	4.82	1.644	-.630	-.388
Profound	.864	4.91	1.521	-.655	-.173
Cronbach's alpha = .829 Cumulative variance explained (%) = 71.452					

Notes: KMO = .906 Bartlett's test of sphericity = 6034.837 (sig. 0.000).

[a] Each item was asked on a 7-point Likert scale where 1 = *'Never'* and 7 = *'Daily'*.

[b] Each item was asked on a 7-point Likert scale where 1 = *'Strongly disagree'* and 7 = *'Strongly agree'*.

5.4.2 THE CORRELATION AMONG URBAN SETTING, SOCIAL INTERACTION, VISITOR CHARACTERISTICS AND VISITOR ATTITUDE TOWARDS INTERACTION

To find out the correlation between urban setting and social interactions between visitors and residents, a Kruskal-Wallis test is conducted to see whether three dimensions underlying social interaction differ among three types of urban settings. The results show that co-presence, focused interaction and quality are all significantly different in three urban settings (Table 5.3). Specifically, Sha Tin offers more co-presence with a mean rank of 250.36, followed by Mong Kok with a mean rank of 225.95 and Central with a mean rank of 147.38. Central offers more focused interaction with a mean rank of 227.18, followed by Sha Tin with a mean rank of 225.73 and Mong Kok with a mean rank of 181.15. Central offers lower quality of interaction with a mean rank of 191.09 than Sha Tin with a mean rank of 228.79 and Mong Kok with a mean rank of 207.34. The largest difference among the three urban settings is co-presence with the highest K-W test statistic of 51.734. By contrast, the difference in quality is the smallest with a K-W test statistic of 6.185.

Table 5.3 K-W test statistic for urban setting and social interactions between visitors and residents

Social interaction	Mean Rank			K-W test statistic	Sig.
	Central	Sha Tin	Mong Kok		
Co-presence	147.38	250.36	225.95	51.734	.000
Focused interaction	227.18	225.73	181.15	14.164	.001
Quality	191.09	228.79	207.34	6.185	.045

Note: Asymptotic significances (2-sided tests) are displayed. The difference is significant at the 0.05 level. Significance values have been adjusted by the Bonferroni correction for multiple tests.

Kruskal-Wallis test is also conducted to investigate the correlation between social interaction and visitor attitude towards interaction (Table 5.4). The results show that focused interaction and quality are correlated with visitor attitude, but there is no correlation between co-presence and visitor attitude. The visitors who hold positive attitudes are those with more focused interaction with a mean rank of 229.70, followed by the visitors with negative attitude with a mean rank of 196.08 and neutral attitude with a mean rank of 175.56. The visitors with positive attitudes are those who perceive better quality of interaction with a mean rank of 266.00, followed by the visitors with neutral attitude with a mean rank of 133.61 and negative attitude with a mean rank of 85.75. Besides, the difference in quality among visitors holding different attitudes is the largest with a K-W test statistic of 138.225.

Table 5.4 K-W test statistic for social interactions and visitor attitude towards interaction

Social interaction	Mean Rank			K-W test statistic	Sig.
	Positive	Neutral	Negative		
Co-presence	213.93	205.03	174.63	2.527	.283
Focused interaction	229.70	175.56	196.08	18.951	.000
Quality	266.00	133.61	85.75	138.225	.000

Note: Asymptotic significances (2-sided tests) are displayed. The difference is significant at the 0.05 level. Significance values have been adjusted by the Bonferroni correction for multiple tests.

To investigate whether visitor characteristics is determined by diverse urban settings, cross tabulations are applied to test the correlation between urban setting and visitor characteristics. The results show that visit status (first-time visitor vs repeater) and travel purpose such as holiday, shopping and visiting relatives/ friends are significantly different across three urban settings (Table 5.5). There are no significant differences in travel companion or other travel purposes such as sight-seeing and business/ conference. Repeaters show up in all three urban settings, with the highest percentage (76.0%) in Sha Tin and lowest percentage (61.2%) in Mong Kok. The visitors with purpose of holiday hold a higher percentage in Sha Tin (71.1%) and a lower percentage in Central (56.2%). The visitors that are visiting relatives/friends show up more in Central (13.8%) and less in Mong Kok (4.8%). For shopping visitors, a higher percentage 48.8% shows up in Sha Tin and a lower percentage 26.2% in Central.

Table 5.5 Cross tabulations of urban setting and visitor characteristics

Visitor Characteristics	Central (%)	Sha Tin (%)	Mong Kok (%)	Pearson Chi-Square	Asymptotic Significance (2-sided)
First-time	25.4	24.0	38.8	9.416	.009
Repeater	74.6	76.0	61.2		
Alone	23.8	17.4	18.2	5.473	.485
Family/relatives/friends	49.2	53.7	57.0		
Organized groups	23.8	27.3	24.2		
Others	3.1	1.7	0.6		
Sight-seeing	78.5	80.6	78.5	.273	.872
Non-sightseeing	21.5	19.4	21.5		
Business/Conference	15.4	13.3	14.0	.254	.881
Non-business/conference	84.6	86.7	86.0		
Holiday	56.2	71.1	58.2	7.000	.030
Non-holiday	43.8	28.9	41.8		
Visiting relatives/friends	13.8	12.4	4.8	7.866	.020
Non-VRF	86.2	87.6	95.2		
Shopping	26.2	48.8	34.5	14.162	.001
Non-shopping	73.8	51.2	65.5		

Cross tabulations are also applied to test the correlation between visitor characteristics and visitor attitude towards interaction (Table 5.6). There are significant differences in first-time visitors versus repeaters, visitors traveling with different companions and visitors with different travel purposes such as sight-seeing, holiday and shopping. Particularly, the percentage of repeaters who hold positive attitude is 63.4% and that of first-time visitors is 47.6%. In general, the majority of visitors with different companions hold positive attitudes. Specifically, the visitors traveling in organized groups have a high percentage of positive attitudes, 70.2., followed by traveling with family or relatives or friends (58.3%) and traveling alone (47.6%). Visitors traveling alone hold a neutral attitude (46.3%). Besides, the visitors with purpose of sight-seeing mainly hold positive attitude (62.4%). Most visitors with purpose of holiday hold positive attitude (69.4%) and shopping visitors (74.0%).

Table 5.6 Cross tabulations of visitor characteristics and visitor attitude towards interaction

Visitor Characteristics	Positive (%)	Neutral (%)	Negative (%)	Pearson Chi-Square	Asymptotic Significance (2-sided)
First-time	47.6	42.1	10.3	12.371	.002
Repeater	63.4	32.8	3.8		
Alone	47.6	46.3	6.1	14.684	.023
Family/relatives/friends	58.3	35.9	5.8		
Organized groups	70.2	24.0	5.8		
Others	28.6	71.4	0.0		
Sight-seeing	62.4	31.8	5.8	10.208	.006
Non-sightseeing	44.2	50.0	5.8		
Business/Conference	55.9	37.3	6.8	.265	.876
Non-business/conference	59.1	35.3	5.6		
Holiday	69.4	26.7	3.9	31.603	.000
Non-holiday	41.6	49.7	8.7		
Visiting relatives/friends	63.4	36.6	0	2.813	.245
Non-VRF	58.1	35.5	6.4		
Shopping	74.0	23.3	2.7	23.218	.000
Non-shopping	50.0	42.5	7.5		

5.4.3 MEDIATED REGRESSION RESULTS FOR PREDICTING VISITOR ATTITUDE TOWARDS INTERACTION WITH RESIDENTS

This study proposes that the urban setting has an effect on visitors' attitude towards interaction, which may be mediated by social interactions between visitors and residents (causation) or visitor characteristics (selection). In order to investigate the two hypotheses, several ordinal regression models are applied. The results are shown in Table 5.7. In the first model, only the urban setting is included as independent variable in the model. The reference category is Central. In the second model, social

interactions (co-presence, focused interaction and quality of interaction) is added to test the hypothesis of causation. In the third model, visitor characteristics (visit status and travel purpose) is added to test the hypothesis of selection. In the last model, both social interactions and visitor characteristics are added as independent variables besides urban setting to test the overall mediation model.

Overall, the chi-square in these models indicates that all the models have statistically significant explanatory power. The Nagelkerke R-square indicates large differences in the model explanation of the variability in visitor attitude which varies from 0.019 to 0.398. In model 1, the results suggest that urban setting has an effect on visitor attitude towards interaction but only Sha Tin stands out with a positive parameter of 0.587, indicating that compared to visitors in Central, visitors in Sha Tin are more likely to hold positive attitudes towards interaction. However, there is no significant difference in visitor attitude between Central and Mong Kok.

In model 2, the causation model, starting with urban setting as independent variable, adding social interactions, causes a minor change from 0.587 to 0.511 in the coefficient of Sha Tin (the significance drops due to a larger standard error). If this is mediation, it is very limited. Focused interaction and quality are positively associated to visitor attitude, with one unit increase in focused interaction or quality, the log of odds of holding a positive attitude among visitors will increase by 0.406 or 1.282.

In model 3, the selection model, adding visitor characteristics causes a major drop in the coefficient of Sha Tin from 0.587 to 0.271and a loss of significance, suggesting there is a real impact of mediation. Repeat visiting, as opposed to a first-time visiting, is associated with a higher likelihood of holding a positive attitude. Holiday and shopping visitors are more likely to hold a positive attitude.

The comparison of model 2 and 3 shows that the effect of the urban setting on the attitudes of visitors is hardly mediated by the intensity and quality of the interaction but strongly mediated by the self-selection of visitors. Sha Tin does not necessarily provide more and better interactions which could account for a more positive attitude but attract visitors with a more positive attitude.

This does not mean that interaction does not matter. The results of model 4 are in line with the existing literature in showing that both social interactions between visitors and residents and visitor characteristics contribute to explaining the attitude of visitors. Adding interaction to model 3, as has been done in model 4, affects the parameters

of the visitor characteristics. Repeat visitors and holidaymakers to some extent have a more positive attitude because of the intensity and quality of the interaction. Overall, the result therefore show that the interaction is important for shaping visitor attitude, but is not mediating the effect of urban setting on visitor attitude towards interaction.

Table 5.7 Ordinal logistic regression models for attitude towards interacting with residents by mainland Chinese visitors in Hong Kong (coefficients reported with standard errors)

Visitor attitude (DV)	Model 1	Model 2	Model 3	Model 4
Attitude = 0 (negative)	-2.629***(.251)	-3.396***(.305)	-1.733***(.302)	-2.709***(.349)
Attitude = 1 (neutral)	-.165(.173)	-.271(.207)	.911**(.266)	.536(.295)
Independent variables				
Urban setting				
ST (ref. Central)	.587*(.259)	.511(.308)	.271(.274)	.239(.315)
MK (ref. Central)	.051(.230)	.047(.270)	.018(.243)	-.039(.276)
Social interaction				
Co-presence		.050(.122)		.453(.244)
Focused interaction		.406***(.114)		.654**(.232)
Quality		1.282***(.127)		.657*(.259)
Visitor characteristics				
Repeater (ref. First-time)			.535*(.221)	.072(.125)
Holiday (ref. non)			.914***(.212)	.306**(.117)
Shopping (ref. non)			.796**(.232)	1.207***(.128)
Model fitting information				
Chi-Square	6.454*	141.640***	53.572***	163.063***
Deviance	2.884	557.731	37.742	540.128
Pseudo R-Square (Nagelkerke)	.019	.354	.148	.398

Note: Significance levels: *p<0.05; **p<0.01; ***p<0.001

5.5 CONCLUSIONS AND DISCUSSION

In this article, we test the two hypotheses (i.e. causation and selection) about why urban setting matters in shaping visitor attitude towards interactions with residents. Mainland Chinese visitors' attitudes towards interactions with residents in Hong Kong are investigated across three diverse urban settings, i.e. city centre (Central), suburban setting (Sha Tin) and new urban tourism setting (Mong Kok). We assume that urban setting provides different social interactions between visitors and residents or attracts different visitors with particular characteristics, which in turn influence visitor attitude towards interactions with residents. As expected, urban settings (Central vs Sha Tin) matter in shaping mainland Chinese visitor attitude. We find that in general more intensive and better interactions are related to more positive attitudes of visitors. We also find that different urban settings attract different visitors with different attitudes

towards interactions with residents. However, the findings of this study suggest weak evidence that the difference in attitudes across urban settings is caused by the intensity and quality of social interaction and strong evidence that the difference in attitudes across urban settings is due to the self-selection of visitors into these areas.

Previous studies suggest that diverse urban settings offer different interaction opportunities for visitors, in particular with city centre offering most intensive interactions (Kotus et al., 2015), suburban settings offering more interactions with residents participating in tourism industry (Su et al., 2016) and new urban tourism settings offering more and better interactions (Dai et al., 2017). These interactions will determine visitor attitude, higher intensity and quality of interaction lead to a positive attitude (Fan et al., 2017; Pizam et al. 2000). In line with previous studies, this paper supports these conclusions. However, when it comes to visitor attitude towards interactions across diverse urban settings, social interactions between visitors and residents are not the real factor that explains the difference between urban settings. The real factor is the self-selection of visitors with a positive attitude into the urban areas outside the city centre.

This paper finds that diverse urban settings actually attracts visitors with different travel purposes and visit status (first-time visitors vs repeaters). In line with previous studies (e.g. Caldeira & Kastenholz, 2018), first-time visitors mainly visit the city centre, but repeaters travel more widely. The findings show that more repeaters show up in Sha Tin. Visitors traveling for shopping and holiday appear more in Sha Tin, followed by Mong Kok and Central. Sha Tin seems to cater for leisure activities, Mong Kok for experiencing local lives and Central for sight-seeing or business activities. The appeal of suburban setting is consistent with visitors' travel purpose. These visitor characteristics in different urban settings further determine attitude formation. Previous studies suggest that repeaters are more positive towards interactions with residents than first-time visitors (e.g. Jang & Feng, 2007), a finding supported by this study.

These findings are pertinent to strategies of managed growth of tourism in cities. Creating sub-centres for visitors will be more effective if these are developed as specific product-market combinations. Repeat visitors and holiday makers hold more positive attitudes towards interacting with local residents and could therefore be welcomed in the sub-centres. For Hong Kong in particular, offering alternatives for the city centre to shopping-visitors, might be an effective strategy to relieve the pressure on the city centre and to provide better experiences to the visitors. It would also be helpful to create more intensive and favourable interactions between visitors and

residents in several sub-centres, in order to manage visitor flows and counterbalancing overcrowding in the city centre.

However, there are still some limitations in this study, for example, more mediators between urban setting and visitor attitude should be explored. Besides, currently we considered visitor characteristics and social interactions between visitors and residents as two independent variables, but they seem to be related. The possible relation between the two variables will be explored in next step.

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6

DOES THE IMPACT OF SOCIAL INTERACTIONS BETWEEN VISITORS AND RESIDENTS ON MUTUAL UNDERSTANDING DEPEND ON SOCIAL DISTANCE?

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ABSTRACT

This paper examines effects of social interactions between visitors and residents on their mutual understanding by acknowledging the role and implication of social distance. The results reveal that focused interaction and co-presence are not defined by social distance. Focused interaction has a positive significant and co-presence a negative significant effect on residents' understanding whereas only focused interaction has a significant and positive effect on visitors' understanding. The quality of interaction has the strongest effect on mutual understanding and is being defined by social distance. Overall, the results suggest that social interaction only contribute to mutual understanding when social distance is small to start with.

Keywords: Social distance, social contact, social interactions between visitors and residents, mutual understanding, mainland Chinese visitors, Hong Kong residents

6.1 INTRODUCTION

Tourism brings visitors and residents together and their interactions have effects on both groups. For visitors, interaction with residents could improve the original image of the destination and of the residents living there, develop place attachment and friendships, identify cultural difference, enhance cross-cultural competence, and reinforce their original culture (Cohen, 1972; Cohen, 1979; Fan et al., 2017). For residents, interaction with visitors has the potential to enhance local pride, shape ethnic identity and generate more respect for local culture (Gu & Ryan, 2008, 2012; Su & Wall, 2013) but also to develop a better understanding of other cultures and people (Su et al., 2016). Altogether, social interactions between visitors and residents provide the potential for both groups to get to know and understand each other better, potentially enhancing mutual understanding (Tomljenovic, 2010).

Many authors have recognized the intensity and quality of interaction as important dimensions of social contact (e.g. Allport, 1954; Eusébio & Carneiro, 2012; Fan et al., 2017; Huang & Hsu, 2010; Islam & Hewstone, 1993). Others have indicated that different intensities and qualities of interactions may contribute to mutual understanding between visitors and residents in different ways (e.g. Andereck et al., 2005; Fan et al., 2017; Pizam et al., 2000; Sharpley, 2014). More specifically, both a high intensity and good quality of interaction may contribute to a better understanding between visitors and residents (Andereck et al., 2005; Fan et al., 2017; Pizam et al., 2000; Su et al., 2016). Moreover, the social interaction between visitors and residents involves two groups – i.e. visitors and residents. As indicated by Sharpley (2014), social interaction could have different impacts for the visitors and residents involved - which also suggests that the impact of social interactions on their perceptions or understanding may be asymmetrical.

The social interactions between visitors and residents seem to be affected by their initial attitudes. These initial attitudes of visitors and residents towards other people and their culture can actually predict the intensity and quality of interactions (Tomljenovic, 2010). Visitors and residents from different cultural backgrounds have interactions with each other with predispositions (Pi-Sunyer, 1989), that are often reflects a deeply rooted social distance related with stereotypes and prejudice. Social distance can be defined as "the level of intimacy an individual or a group is disposed to maintain toward other groups or individuals" (Yilmaz & Tasci, 2015, p115) and can be affected by a variety of factors, such as historical events, education and social media (Çelik, 2019). Previous studies suggest that a low degree of social distance would increase

tolerance and intimacy towards others and having contact with them whereas a high degree of social distance signals the opposite (Woosnam & Lee, 2011; Yilmaz and Tasci, 2015). However, a limited number of studies until now have analyzed the role and implication of social distance in the impact of social interactions on mutual understanding. Moreover, existing tourism studies on social distance mostly focused on the resident perspective (e.g. Thyne et al., 2004; Thyne et al., 2018; Yilmaz & Tasci, 2015) or the visitor perspective (e.g. Çelik, 2019; Tasci, 2009; Woosnam & Lee, 2011). As such, little attention has been paid so far to comparing and combining both the visitor and resident perspective in one study – investigating a potential asymmetry in the impact of social interactions between visitors and residents on mutual understanding depending on social distance.

Since its return to China in 1997, Hong Kong has attracted large and increasing numbers of visitors from mainland China. Despite the geographical proximity of Hong Kong and mainland China as well as the historical and social bonds between both territories, many large differences – such as in terms of economic structure, educational system, history, culture and lifestyle – exist, often related with Hong Kong's colonial background and China's communist history. Such differences may not only attract large numbers of mainland visitors towards Hong Kong but may very likely generate social distance between both groups of people as well (Yeung & Leung, 2007). In this context, Siu et al. (2013) argue that Hong Kong residents generally show a negative attitude towards mainland Chinese visitors (Siu, Lee & Leung, 2013). They have been accusing mainland Chinese visitors of uncivilized behaviors – including eating and making noise in public transport – and of causing a variety of other problems in the city – including crowding, congestion and increasing property prices (Prendergast et al., 2016). At the same time, mainland Chinese visitors have complained about not receiving reasonable or fair treatment in Hong Kong by its residents (Ye et al., 2012).

The aim of this paper is to investigate the impact of social interactions between visitors and residents on mutual understanding between mainland Chinese visitors and Hong Kong residents and to what extent this impact depends on social distance. To achieve this aim, the following three research questions will be addressed: 1) Does social interaction contribute to a greater mutual understanding between mainland Chinese visitors and Hong Kong residents? 2) What is the role and implication of social distance in the impact of social interactions on mutual understanding? 3) What are the mechanisms between social distance, social interaction and mutual understanding from both the visitor and the resident perspective?

6.2 THEORETICAL FRAMEWORK

Social contact and interaction can result in an improvement of relations and understanding between the groups of people involved (Maoz, 2000). Previous studies suggest that interactions between visitors and residents generate a variety of impacts on their mutual understanding, such as related with local culture, ethnic identity, and lifestyle (e.g. Andereck et al., 2005; Gu & Ryan, 2012; Su & Wall, 2016). Through interaction with residents, visitors may for instance develop knowledge about the destination, understanding of residents' culture and identity, and cross-cultural competence (Fan et al., 2016). Through interaction with visitors, residents may for instance develop a better understanding and appreciation of other people's cultures and traditions (Su et al., 2016).

However, social interaction between visitors and residents does not always lead to a better mutual understanding between both groups. According to contact theory, social contact between different individuals or groups can only improve understanding towards each other under favorable conditions (Allport, 1954). In tourism contexts, the extent to which such favorable conditions exist is often analysed by looking at the quality of interaction (Fan et al., 2017; Huang & Hsu, 2015; Islam & Hewstone, 1993). Generally speaking, an equal, cooperative and friendly interaction is understood to result in a better mutual understanding between visitors and residents (Fan et al., 2017).

Looking at the intensity of social interactions between visitors and residents can provide an additional explanation for whether social contact leads to an improvement of attitudes towards each other and mutual understanding. When it comes to the intensity of contact, Goffman (1967) argues that two levels of intensity can be defined, namely co-presence (i.e. the minimum level) and focused interaction (i.e. the maximum level). As suggested by Valentine (2008), different intensities of contact may have different implications for people's post-attitudes. In tourism contexts, Sharpley (2014) confirms that a different intensity of interaction could lead to different attitudinal effects for visitors and residents. For visitors, intense interactions with residents result in the most positive attitudinal change towards the destination and its residents (Pizam et al., 2000). For residents, a high intensity of interaction with visitors – when working in the tourism industry – usually results in a positive attitude towards tourism and visitors (Andereck et al., 2005). However, a low intensity of interaction – in the sense of just sharing the same space or co-presence - may have an impact on residents' perceptions and attitudes but not for visitors, according to Sharpley (2014).

Different intensities and qualities of social interactions between visitors and residents are assumed to bring about different impacts on their mutual understanding but the interaction in itself may be defined by visitors' and residents' initial attitudes. According to Tomljenovic (2010), the initial attitude can even predict the occurrence of social contact and interaction between visitors and residents. For instance, Woosnam & Lee (2011) indicated that it is likely for residents perceiving a high degree of social distance towards visitors that they would experience a lower quality when interacting with visitors. Furthermore, Yilmaz and Tasci (2015) suggested that a low degree of social distance between members of different groups means a high willingness to interact and develop a higher degree of closeness in terms of relations whereas high social distance reflects a low willingness to engage in interaction, e.g. living in the same city but not developing friendship relations.

Social distance is a particular type of initial attitude that has often been used to assess the degree of physical and emotional closeness between individuals or groups with distinct characteristics such as religion, culture, nationality, ethnicity or social class (Yilmaz & Tasci, 2015). Social distance is affected by a variety of factors such as historical events, education and social media (Çelik, 2019; Tasci, 2009) and is inherently tied to stereotypes and prejudice (Yilmaz & Tasci, 2015). For example, most Hong Kong residents' perceptions of mainland Chinese visitors seem to be related with social media discussions or hearsay from other residents but not based on personal interactions with the visitors (Yeung & Leung, 2007). Moreover, it is often deeply rooted, not easy to change and relatively stable. For mainland Chinese and Hong Kong residents, Social distance is a deeply rooted social attitude that seems not easy to change, and for Hong Kong residents mainly reflecting a negative attitude towards mainland Chinese (Chen et al., 2016; Fan et al., 2017; Prendergast et al., 2016; Siu et al., 2013). However, a limited number of studies so far have focused on the role and implication of social distance in the impact of social interactions between visitors and residents on mutual understanding.

The discussion above has been summarized and visualized by means of a conceptual model in Figure 6.1. First, social interactions between visitors and residents may contribute to their mutual understanding. However, a different intensity of interaction – i.e. co-presence and focused interaction – and different quality of interaction may generate different impacts on mutual understanding between visitors and residents. Second, social interactions between visitors and residents may be defined by social distance. In that case, the effects of social interactions between visitors and residents on mutual understanding would depend the social distance between visitors and residents.

Figure 6.1 Conceptual model

6.3 RESEARCH DESIGN

6.3.1 STUDY SITE, SAMPLING METHOD AND DATA COLLECTION

This study was conducted in Hong Kong which is located on the southeast coast of China. Following a 60-year British colonial history, Hong Kong became a Special Administrative Region of the People's Republic of China on 1 July 1997, under the principle of "One Country, Two Systems". For Hong Kong this principle provided a high degree of autonomy, including retaining its capitalist system, independent judiciary, and rule of law. The colonial history and international harbour of Hong Kong produced a rich blend of cultures in the city, making it one of most popular tourism destinations in Asia. Due to its geographical location as well as close relationships and preferential policies, Hong Kong gains most from China's domestic and outbound tourism market growth. According to Hong Kong Tourism Board (2019), mainland China is the largest source market with a rise of 14.8% in 2018 reaching a total of about 51 million visitors - accounting for over 78% of the total number of visitor arrivals in the city.

Data for this study was collected from mainland Chinese visitors through an online survey and from Hong Kong residents through an on-site survey. In June 2017, the online questionnaire (in Mandarin) was distributed among mainland Chinese who visited Hong Kong before and live in a variety of mainland Chinese cities. The distribution was facilitated by wjx.cn, the largest online survey company in China, and respondents were randomly selected from its large database with 2.6 million members. At the same time, the on-site questionnaire (in Cantonese) was distributed among residents living in Hong Kong through a random intercept approach on both weekdays and weekends in different areas throughout the city. Ultimately, about 594 mainland visitors were approached and 416 valid questionnaires collected – meaning

a response rate of about 70%. For Hong Kong residents, 315 valid questionnaires were collected with an on-site acceptance rate of about 14%.

6.3.2 SURVEY INSTRUMENT AND DATA ANALYSIS

The survey instrument was designed to contain four sections, i.e. social interactions between visitors and residents, mutual understanding, social distance and respondents' sociodemographic information. Mutual understanding between visitor and residents as dependent variable was operationalized in our questionnaire through a 9-item measurement scale which has built on two previous studies. Firstly, we built on the study by Fan et al. (2017) who investigated social interactions between visitors and residents and impacts of interaction from the perspective of Hong Kong citizens visiting mainland China and having contact with mainland Chinese residents. The authors explored several dimensions of social interactions between visitors and residents through in-depth interviewing and identified a variety of 'impacts after contact', including obtaining recommendations, knowing more about mainland China, recognizing the differences, reinforcing the original culture, changing images, cross-cultural competence, and making friends. Secondly, we built on the study by Su et al. (2016) who provided a literature synthesis on social interactions between visitors and residents while taking both the visitor perspective and the resident perspective into consideration. The authors developed a diagram of types of social interactions between visitors and residents and related impacts for both groups – including on cultural understanding of visitors and on ethnic identity of residents. The diagram was used to explore social interactions between visitors and residents and impact perceptions through a combination of mainly in-depth interviews, informal discussions and on-site observations. From both qualitative studies, impacts of social interactions between visitors and residents related with mutual understanding were selected for developing a quantitative measurement scale for the purpose of our study.

In the questionnaire, both visitor and resident respondents were asked to indicate the extent to which they agree on formulated statements regarding the impacts of social interactions between visitors and residents on their mutual understanding. The visitor questionnaire contains nine statements with respect to whether visitors feel that their interaction with residents 'improve the image of Hong Kong and its people', 'make you know more about Hong Kong people and their lives', 'result in making new friends', 'enhance ethnic identity', 'reinforce the original culture', 'make you recognize the difference of financial conditions', 'make you understand cultural differences' and 'make you recognize the behavioral difference'. The resident questionnaire contains nine similar statements but then reformulated to reflect how Hong Kong residents

feel about the impacts of their interaction with mainland Chinese visitors on mutual understanding. Altogether, respondents' mutual understanding was measured by a seven-point scale – i.e. on a scale from 1 = 'strongly disagree' to 7 = 'strongly agree'. For the analysis of social interactions between visitors and residents, the visitor and resident respondents were asked how frequently (on a scale from 1 = 'never' to 7 = 'very frequently') they interact with Hong Kong residents and mainland Chinese visitors respectively through different types of interaction activities. Based on Fan et al.'s (2017) study and personal on-site investigations in Hong Kong in June 2017, sixteen types of interaction activities were taken into account involving both co-presence and focused interaction. Amongst others, these include sitting next to each other, dining in the same restaurant, chatting casually and inviting to home. Moreover, based on the previous studies by Huang & Hsu (2010) and Islam & Hewstone (1993), the respondents were asked to assess (on a scale of 1 = 'strongly disagree' to 7 = 'strongly agree') the quality of the interaction by looking at whether they perceived the interaction as harmonious, friendly, interesting, equal, cooperative, close and profound.

Social distance between visitors and residents was measured by making use of the Bogardus's social distance scale (Bogardus, 1925; 1933). Visitor and resident respondents were asked to indicate the extent to which they accept each other on a seven-point scale ranging from 'closest' to 'farthest'. The dimensions our respondents could make a choice from are the following: accepting Hong Kong residents and mainland Chinese visitors respectively as (1) 'married to a close family member', (2) 'close friend', (3) 'neighbour', (4) 'colleague', (5) 'citizen', (6) 'visitor', and (7) 'should be banned from the city'.

To investigate the underlying factor structure of social interaction and mutual understanding between visitors and residents, we first applied factor analysis to both the visitor sample and the resident sample. After that, several linear regressions were conducted to examine the effects of social distance on co-presence, focused interaction and the quality of interaction between visitors and residents. This was followed by several linear regressions conducted to examine the mechanisms between social distance, social interactions between visitors and residents and mutual understanding. More specifically, we started with a model to investigate the effects of social distance as an independent variable on mutual understanding as dependent variable, followed by a model adding social interactions between visitors and residents as another independent variable. Most importantly, the second model was used to investigate whether social interactions between visitors and residents could capture the effects of social distance on mutual understanding.

6.4 RESULTS

6.4.1 SAMPLE PROFILE

The sample profiles of visitors and residents are presented in Table 6.1. Looking at the gender division of both the visitor and resident sample shows more females (60.8%) than males (39.2%) for visitors and more males (52.1%) than females (about 47.9%) for residents. Most visitors and residents have an age between 18 and 29 or between 30 and 39. However, most residents (48.6%) fall within the age range 18-29 and most visitors (48.1%) fall within the age range 30-39. The visitors mostly have a high education level, with 85.8% holding a bachelor's or master's degree and above. A substantial percentage of residents also have a high education level (56.5%) but, overall, the resident sample has a lower education level than the visitor sample. Moreover, most visitors have a medium monthly income (56.5%) and the same goes for the residents but to a lower degree (38.7%). However, the resident sample shows a higher percentage for with high monthly income (27.6%) than the visitor sample (12.3%).

Table 6.1 Descriptive summary of sample

Demographics		Visitor (416)		Resident (315)	
		Frequency	Percentage (%)	Frequency	Percentage (%)
Gender	Male	163	39.2	164	52.1
	Female	253	60.8	151	47.9
Age	18-29	177	42.5	153	48.6
	30-39	236	48.1	66	20.9
	40-49	30	7.2	42	13.4
	50-59	6	1.5	25	7.9
	60 or above	3	0.7	29	9.2
Education	Below Bachelor	59	14.2	137	43.5
	Bachelor's degree	225	54.1	152	48.3
	Master's degree and above	132	31.7	26	8.2
Monthly income*	Low	130	31.3	106	33.7
	Medium	235	56.5	122	38.7
	High	51	12.3	87	27.6

Note: For visitors, low means less than 8.000 RMB, medium means 8001-16000 RMB and high means More than 16.000 RMB; For residents, low means less than 10.000 HKD, medium means 10.000-20.000 HKD and high means more than 20.000 HKD.

6.4.2 FACTOR STRUCTURE OF SOCIAL INTERACTIONS AND MUTUAL UNDERSTANDING

To determine the factor structure of both social interactions between visitors and residents and their mutual understanding, factor analysis was applied to both the visitor and resident sample in a comparative way (see Table 6.2). For both samples,

all Kaiser-Meyer-Olkin (KMO) values for social interaction and mutual understanding were found to be higher than 0.80 and all results of the Bartlett's test significant ($p < .001$). Varimax-rotated factor analysis was applied to extract the factor structure of social interaction and mutual understanding. In so doing, any items with low factor or high cross-loading issues – i.e. items with loadings lower than .4 and with loadings higher than .4 on more than one factor – were deleted (Choo & Petrick, 2014).

For visitors, three factors of social interaction with residents – i.e. co-presence, focused interaction and quality of interaction – were identified, explaining about 71% of the total variance. For visitors' understanding, one factor was identified (containing all nine items from the survey), explaining about 60% of the total variance. The Cronbach's alpha values for visitors' interactions with residents and visitors' understanding are .829 and .916 respectively, indicating that the items have a relatively high internal consistency (DeVellis, 1991; Nunnally, 1978).

For residents, three factors of social interaction with visitors – i.e. co-presence, focused interaction and quality of interaction with visitors – were identified, explaining about 62% of the total variance. For residents' understanding, the same one factor was identified, explaining about 55% of the total variance. The factor only contains five of the nine items from the survey because the other four items were deleted due to low factor loadings or high cross-loadings. The Cronbach's alpha values for residents' interaction with visitors' and residents' understanding are 0.821 and 0.925 respectively, indicating acceptable reliability of the measurements.

Consistent with literature on social contact, the same factor structure for visitors and residents was found and labelled as co-presence, focused interaction and quality of interaction – containing the same items for both groups. Overall, both visitors and residents appear to have more co-presence ($M > 4.00$) than focused interaction ($M < 4.00$) and but visitors perceive a higher quality of interaction than residents. Looking at the loadings of the items per factor also reveal several differences, indicating that the same item may reflect different stories for both groups. The mutual understanding for visitors and residents has five items in common with visitors' understanding having an additional four items. When comparing the items both groups have in common, visitors appear to have better understanding than residents overall.

Table 6.2 Results of factor analysis for social interactions and mutual understanding between mainland Chinese visitors (N = 416) and residents (N = 315) in Hong Kong

Factors & Items	Visitor			Factors & Items	Resident		
Interaction	**FL**	**M**	**SD**	**Interaction**	**FL**	**M**	**SD**
Co-presence[a]				***Co-presence***[a]			
Sitting around	.642	4.42	1.517	Sitting around	.594	4.66	1.350
Dining in restaurants	.815	4.83	1.707	Dining in restaurants	.753	4.73	1.266
Walking on roads	.892	5.16	1.980	Walking on roads	.850	5.63	1.279
Wandering in the area	.900	5.07	1.865	Wandering in the area	.841	5.49	1.343
Taking a bus or subway	.853	5.17	1.868	Taking a bus or subway	.655	5.03	1.671
Shopping	.843	4.85	1.892	Shopping	.746	5.22	1.659
Focused interaction[a]				***Focused interaction***[a]			
Chatting casually	.748	3.63	1.710	Chatting casually	.662	3.20	1.601
Having photos taken by residents	.733	3.62	1.881	Taking photos for visitors	.640	3.25	1.607
Taking photos for residents	.778	2.84	2.029	Having photos taken by visitors	.778	2.44	1.495
Bargaining	.571	3.77	1.759	Bargaining	.727	2.25	1.684
Making friends	.834	3.00	1.992	Making friends	.776	2.10	1.507
Inviting to home	.813	2.76	2.038	Inviting to home	.764	1.77	1.418
Quality[b]				***Quality***[b]			
Harmoniously	.896	5.03	1.487	Harmoniously	.885	4.17	1.402
Friendly	.904	5.06	1.547	Friendly	.909	4.20	1.394
Interesting	.879	4.94	1.479	Interesting	.833	4.15	1.507
Equal	.881	4.88	1.569	Equal	.833	4.28	1.476
Cooperative	.802	4.75	1.508	Cooperative	.561	3.80	1.632
Close	.888	4.82	1.644	Close	.892	4.05	1.488
Profound	.864	4.91	1.521	Profound	.736	4.31	1.308
KMO = .906				KMO = .869			
Cronbach's alpha = .829				Cronbach's alpha = .821			
Cumulative variance explained (%) = 71.452				Cumulative variance explained (%) = 62.354			
Visitor understanding[b]	**FL**	**M**	**SD**	**Resident understanding**[b]	**FL**	**M**	**SD**
Improve the image of Hong Kong and its people	.773	4.98	1.504	Improve the image of mainland China and its people	.889	4.10	1.341
Know more about HK people and their lives	.848	5.35	1.457	Know more about mainland Chinese and their lives	.875	4.31	1.313
Enhance the cross-cultural understanding	.868	5.28	1.427	Enhance the cross-cultural understanding	.880	4.34	1.350
Make new friends	.725	4.72	1.528	Make new friends	.850	4.14	1.580
Enhance ethnic identity	.798	4.86	1.573	Enhance ethnic identity	.828	4.05	1.548
Reinforce the original culture	.833	5.46	1.403	_			
Recognize the difference of financial conditions	.762	5.07	1.372	_			
Understand cultural differences	.731	5.15	1.406	_			
Recognize the behavioral difference	.621	5.19	1.329	_			
KMO = .914				KMO = .827			
Cronbach's alpha = .916				Cronbach's alpha = .925			
Cumulative variance explained (%) = 60.294				Cumulative variance explained (%) = 54.960			

Note: FL: factor loading, M: mean, SD: standard deviation.

[a] Each item was asked on a 7-point Likert scale where 1 = '*Never*' and 7 = '*Daily*'.

[b] Each item was asked on a 7-point Likert scale where 1 = '*Strongly disagree*' and 7 = '*Strongly agree*'.

6.4.3 THE EFFECT OF SOCIAL DISTANCE ON SOCIAL INTERACTIONS BETWEEN VISITORS AND RESIDENTS

Table 6.3 shows the results analysing and comparing the social distance between mainland Chinese visitors and Hong Kong residents. The results reveal a significant difference between both groups (F = 24.247, p = 0.000), with a higher mean social distance score for residents (M = 3.90) than for visitors (M = 3.23). This suggests that mainland Chinese visitors feel a higher intimacy for Hong Kong residents than the other way around, pinpointing an asymmetry in social distance between visitors and residents.

Table 6.3 Difference in social distance between mainland Chinese visitors (N = 416) and residents (N = 315) in Hong Kong

Variable	Visitor		Resident		F	Sig.
	Mean	SD	Mean	SD		
Social distance	3.23	1.589	3.90	2.063	24.247	.000

Note: Social distance scale ranges from 1 = closest to 7 = farthest.

Six linear regressions were conducted to determine the effects of social distance on co-presence, focused interaction and quality of interaction for visitors and residents. The results (see Table 6.4) show that social distance has a significantly negative effect on the quality of interaction but no significant effects on co-presence and focused interaction for both visitors and residents. Moreover, the effect of social distance on the quality of interaction is stronger for residents (with a negative coefficient of 0.475) than for visitors (with a negative coefficient of 0.182). Social distance works in the same direction for the quality of interaction for both groups, but the R-square indicates a stronger effect of social distance in the model explanation for the variability in the quality of interaction for residents (R^2 = 0.226) than for visitors (R^2 = 0.033).

Table 6.4 Regression results for predicting social interactions between mainland Chinese visitors (N = 416) and residents (N = 315) in Hong Kong

Group	Dependent variable	Coefficients	R-square	F	P value
		Social distance			
Visitor	Co-presence	-.028	.001	.319	.572
	Focused interaction	-.035	.001	.514	.474
	Quality	-.182***	.033	14.225	.000
Resident	Co-presence	.066	.004	1.373	.242
	Focused interaction	-.046	.002	.650	.421
	Quality	-.475***	.226	91.171	.000

Note: Significance levels: *p<0.05; **p<0.01; ***p<0.001; All the coefficients are standardized coefficients.

6.4.4 THE EFFECT OF SOCIAL DISTANCE ON MUTUAL UNDERSTANDING BETWEEN VISITORS AND RESIDENTS

Linear regression models were used to predicting mutual understanding between visitors and residents based on the conceptual model for this paper. The results for visitors – i.e. model 1 and 2 – and for residents – i.e. model 3 and 4 – are presented in Table 6.5. Social distance appears to have impact on mutual understanding, captured by social interactions between visitors and residents. More specifically, it is completely captured but weak in the visitor model and partly captured but strong in the resident model – when considering the decrease of coefficients and the loss of significance for social distance. Moreover, social distance has a stronger effect on residents' understanding than on visitors' understanding – with the understanding of residents influenced by co-presence, focused interaction and quality of interaction and the understanding of visitors influenced by focused interaction and quality of interaction but not by co-presence.

Looking at the visitor model, the results for model 1 show that social distance has a negative effect on mutual understanding. More specifically, with an increase of one unit of social distance, the mutual understanding will decrease with 0.160. The results for model 2 reveal a decrease in the negative coefficient for social distance from -0.160 to -0.026 as well as a loss of significance. Focused interaction and quality of interaction show significant positive and significant effects on mutual understanding – with the latter (0.710) having a much stronger positive effect than the former (0.113). More specifically, with an increase of one unit of focused interaction and quality of interaction, visitors' understanding increases with 0.113 and 0.710 respectively. When comparing model 1 and model 2, the R-square indicates an increase in the explanation of the variability in mutual understanding from 0.026 to 0.525. The F-value increases from 10.869 to 113.647, suggesting an increase in the explanatory power from model 1 to model 2.

Looking at the resident model, the results for model 3 show that social distance has a strong negative effect on mutual understanding. The results for model 4 reveal a decrease in the negative coefficient for social distance from -0.443 to -0.094 as well as a decrease in significance. Co-presence, focused interaction and quality of interaction all show significant effects on mutual understanding – with positive effects for focused interaction (0.256) and quality of interaction (0.691) but negative effects for co-presence (- 0.127). The effect of quality of interaction on residents' understanding is much stronger than of focused interaction and co-presence. When comparing model 3 and model 4, the R-square indicates an increase in the explanation of the

variability in mutual understanding from 0.196 to 0.634. The F-value increases and the explanatory power increased from 76.305 to 134.131, suggesting an increase in the explanatory power from model 3 to model 4.

Table 6.5 Regression model results for predicting mutual understanding between mainland Chinese visitors (N = 416) and residents (N = 315) in Hong Kong

Predictors	Mutual understanding			
	Visitor model		Resident model	
	Model 1	Model 2	Model 3	Model 4
Social distance	-.160**	-.026	-.443***	-.094*
Co-presence		.008		-.127***
Focused interaction		.113**		.256***
Quality		.710***		.691***
R-square	.026	.525	.196	.634
F	10.869	113.647	76.305	134.131
P value	.001	.000	.000	.000

Note: Significance levels: *p<0.05; **p<0.01; ***p<0.001; All the coefficients are standardized coefficients.

6.5 CONCLUSIONS AND DISCUSSION

This article examined the effects of social interactions between visitors and residents on mutual understanding by acknowledging the role and implication of social distance between mainland Chinese visitors and Hong Kong residents. We found that the three dimensions of social interactions between visitors and residents – i.e. co-presence, focused interaction and quality of interaction – contribute to mutual understanding in different ways. For both visitors and residents, focused interaction and quality of interaction have positive effects on mutual understanding, with quality of interaction having the strongest effect. Co-presence has no significant effect on visitors' understanding and a negative significant effect on residents' understanding – indicating an asymmetry in the impact of social interactions between visitors and residents on mutual understanding. Overall, our finding suggest that social distance has impact on mutual understanding, captured by social interaction.

Previous tourism studies argue that social interactions will bring about a better mutual understanding and that the effects may differ for visitors and residents. The findings of our study confirm this general argument but also adds to its complexity. Several studies (e.g. Fan et al., 2017; Pizam et al., 2000) indicated that both focused interaction and quality will have positive effects on the mutual understanding between visitors and residents. This finding is generally verified through our study on the Hong Kong case

but, more importantly, it adds the insight that the quality of interaction has a much stronger effect on the mutual understanding than focused interaction for both visitors and residents. Moreover, the finding of our study support and substantiate Sharpley's (2014) conceptualization of the social interaction, arguing that sharing space may have an impact on resident perceptions but not on visitor experiences. More specifically, we found that co-presence – i.e. when interaction is limited to sharing space without physical contact or verbal communication - have no effects on visitors' understanding but negative affects residents' understanding.

This study further enriches tourism studies by providing evidence regarding the role and implication of social distance in the process from social interaction towards mutual understanding. Social distance between mainland Chinese visitors and Hong Kong residents actually negatively affects the quality of interaction, limiting the potential for developing mutual understanding. However, we also found that social distance has no significant influence on co-presence and focused interaction. This is not consistent with the study by Yilmaz and Tasci (2015) on summer resorts in the Mugla province in Turkey, arguing that social distance could explain for both visitors and residents the level of interaction they are willing to engage in with the other group. A possible explanation may lie in the fact that our research context in Hong Kong is much more urbanized with high densities of both visitors and residents. This makes it much more difficult for both visitors and residents to avoid co-presence and focused interaction, with negative effects on the quality of their interaction.

Our study also showed that social distance is asymmetric with residents perceiving a significantly larger social distance than visitors and has a much stronger effect on Hong Kong residents' understanding than on mainland Chinese visitors' understanding. This finding resonates with the study by Siu et al. (2013), arguing that Hong Kong people hold a mainly negative attitude towards mainland Chinese – which, according to Yeung and Leung (2007), is often not related on personal interaction with but rather indirect information about visitors. As such, social distance as a deeply rooted social attitude seems to determine the occurrence of social contact and interaction between mainland Chinese visitors and Hong Kong residents, with important implications for the potential development of a better mutual understanding.

Related with the theoretical contributions discussed above, our paper also brings practical implications for creating a more sustainable tourism destination. Firstly, social distance seems to determine the mutual understanding between visitors and residents through the quality of the interaction. Focused interaction and co-presence

are not being defined by social distance, but both do have significant effects on residents' understanding – with a positive effect for the former and a negative effect for the latter. For visitors' understanding, only focused interaction has a significant, and positive, effect. As such, the mutual understanding between visitors and residents could be improved by promoting more focused interaction for both visitors and residents and decreasing co-presence for residents. To achieve the latter, urban planners or policymakers may want to avoid spreading visitor throughout the city and into residential areas and aim for concentrating visitors, potentially in newly developed tourism areas at some distance from residential areas. Secondly and however, whether social interactions contribute to a better mutual understanding mostly seems to depend on social distance. This implies that the interaction between visitors and residents only has an effect on mutual understanding for those who perceive a small social distance to start with. Under the circumstances that social distance is high for visitors and residents, policies aiming to foster more and better interactions are likely to have very limited outcomes for improving mutual understanding between both groups.

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7

CONCLUSION

7.1 INTRODUCTION

Since Hong Kong's return to China in 1997, an increasing number of visitors from mainland China have flooded into Hong Kong due to the geographical proximity, strong social and economic ties, duty-free shopping opportunities and preferential policies for mainland Chinese visitors, such as the Individual Visit Scheme (IVS). However, the relationship between Hong Kong residents and the mainland Chinese has become increasingly complex (e.g. Siu, Lee & Leung, 2013; Ye, Zhang & Yuen, 2012a), with increasing tourism encounters, resulting from the increasing number of visitors from mainland China, adding to this complexity. Given the long-term and complex relationship between mainland Chinese and Hong Kong people, it is essential to study what forms of tourism encounters take place between mainland Chinese visitors and residents in Hong Kong, and what the impacts of these encounters are on their attitudes and mutual understanding from both perspectives.

Tourism encounters have two dimensions, namely spatial and social. The spatial interactions provide a necessary condition – in the sense of the actual meeting places – for social interactions. Nowadays, tourism takes place in and across a large variety of spaces within cities (Gospodini, 2001). Encounters between visitors and residents potentially occur in different parts of a city. Furthermore, visitors to a city are often categorized as 'day trippers' or 'tourists' based on their length of stay. Hong Kong attracts more day trippers than tourists from mainland China, because visitors from the city just over the border – Shenzhen – have an advantaged position in terms geographical location and visa policy compared to visitors from the rest of mainland China. Taking the importance and complexity of the border context into account, the first aim of the research underlying this thesis was to identify the potential encounter locations of spatial interactions between visitors and residents in Hong Kong (Chapters 2 and 3).

The spatial interactions provided the foundation for exploring where and when potential social interactions take place and in what forms. Differences between urban settings may affect the actual interaction itself (Reisinger & Turner, 2003). Social interactions between visitors and residents in cities are not homogenous in nature and the different urban settings should be taken into account to acknowledge their contextuality and to develop a better understanding of the heterogeneity of the interactive processes taking place. The second aim of the research was to identify the intensity and quality in tourism encounters between mainland Chinese visitors and residents in a variety of geographical contexts in Hong Kong (Chapter 4).

The intensity and quality of social interactions have an effect on both the attitudes of and the mutual understanding between visitors and residents. In addition to urban setting, social interactions are also influenced by social distance, defined as an individual's deeply rooted social attitude towards 'the other'. The impacts of social interactions on attitudes and mutual understanding are therefore affected by both the urban setting and the social distance. Thus, the third aim of the research was to investigate the impacts of social interactions on the attitudes of and mutual understanding between visitors and residents, and the roles of urban settings and social distance in shaping the attitudes and mutual understanding (Chapters 5 and 6).

By systematically analysing tourism encounters from both perspectives, the asymmetry between visitors and residents in spatial interactions and in social interactions, and the impact of these social interactions, were identified in each step of the research.

7.2 SUMMARY OF MAIN FINDINGS

Chapter 1 presented five research questions that were designed 1) to identify the potential places of spatial interactions between mainland Chinese visitors and residents in Hong Kong, 2) to understand social interactions between mainland Chinese visitors and Hong Kong residents in these places, and 3) to investigate the impacts of social interactions on both groups regarding their attitudes and mutual understanding. This section summarizes the main findings with respect to the five questions, which were investigated in Chapters 2 to 6, respectively.

Chapter 2 addressed the question:

> *What are the similarities and differences in the spatial and temporal distribution between mainland Chinese visitors and residents in Hong Kong, and to what extent do their activities overlap in urban space and change over time as an indication of potential encounters?*

The research discussed in this chapter identified and compared the spatio-temporal behaviour patterns of mainland Chinese visitors and residents in Hong Kong over a period of five years, in order to indicate trends in terms of the spatio-temporal distributions of both groups of city users. First, the findings revealed that the spatial behaviours of mainland Chinese visitors are more spatially concentrated, especially in the central urban areas, whereas residents are more dispersed since they also visit suburban and exurban areas. Second, the temporal behaviours of mainland Chinese

visitors varied significantly during the week and between months and seasons, whereas residents appeared to be relatively stable in terms of temporal behaviour. Third, both mainland Chinese visitors and Hong Kong residents showed an interest in central urban areas such as Tsim Sha Tsui, Mong Kok, Central and Causeway Bay. However, looking at trends over five years, mainland Chinese visitors' activities revealed a decline of interest in local neighbourhoods and residential quarters (e.g. Tai Kok Tsui and Kwun Chung). In contrast, residents' activities have decreased in places with typical tourism highlights (e.g. the Peak and Ocean Park). Thus, most social interactions between mainland Chinese visitors and residents occur in the central urban areas of Hong Kong.

Chapter 3 focussed on the question:

> *To what extent are the spatial and temporal distributions different among four types of mainland Chinese visitors – namely day trippers and tourists from Shenzhen and from the rest of mainland China – in Hong Kong?*

This chapter analysed the spatio-temporal behaviour patterns of day trippers and tourists from Shenzhen and the rest of mainland China, based on the concentration and dispersion of their visits to Hong Kong. The main findings of this chapter include spatial activity patterns and temporal activity patterns at the aggregate level among four types of visitors – that is, day trippers from Shenzhen, day trippers from the rest of mainland China, tourists from Shenzhen and tourists from the rest of mainland China. First, the aggregate activity pattern of day trippers is more spatially dispersed than that of tourists. This higher spatial dispersion of day trippers is most prevalent for the group of visitors from nearby Shenzhen. Second, the activity pattern of day trippers at the aggregate level is more concentrated at weekends and during the day compared to tourists, whose activities are more evenly distributed over the day and the week. Third, the hotspots of visitors from the rest of mainland China are mostly concentrated in the central urban areas (e.g. Tsim Sha Tsui, Mong Kok, Central and Causeway Bay), largely overlapping with the hotspots of visitors from Shenzhen. However, visitors from places near the border – and especially day trippers from Shenzhen – also generate hotspots closer to the border (e.g. Sha Tin).

Chapter 4 addressed the question:

> *What are the differences in the intensity and quality of social interactions between three different urban settings – namely a city centre setting, a suburban setting and a new urban tourism setting – within Hong Kong from the perspective of visitors and residents?*

The research discussed in this chapter systematically analysed social interactions between mainland Chinese visitors and residents in Central as a city centre setting, Sha Tin as a suburban setting and Mong Kok as a new urban tourism setting within Hong Kong. The main findings include three dimensions underlying social interactions (i.e. co-presence, focused interaction and quality of interaction), visitors' interactions with residents, residents' interactions with visitors, and the asymmetry in the quality of interactions between visitors and residents. First, for mainland Chinese visitors, less focused interactions but more co-presence and higher quality interactions occur in Sha Tin than in Central. In addition, more co-presence and higher quality interactions but less focused interactions occur in Mong Kok. Second, for Hong Kong residents, less co-presence and focused interactions but higher quality interactions take place in Sha Tin than in Central. In addition, less co-presence and focused interactions but higher quality interactions occur in Mong Kok. Third, visitors experience a higher quality of interaction than residents, and the asymmetry in the quality of interaction is the greatest in the city centre area (Central) and the smallest in the suburban area (Sha Tin), with the new urban tourism area (Mong Kok) taking an intermediate position.

Chapter 5 concerned the question:

> *To what extent do different urban settings shape visitors' attitudes towards social interactions with residents, and should this be explained by the type of social interaction the settings offer or the type of visitors they attract?*

The research discussed in this chapter tested two hypotheses about how urban setting matters in shaping visitors' attitudes towards social interactions with residents in terms of 1) causation effect and 2) selection effect. We found that urban settings (i.e. Central vs Sha Tin) matter in shaping the attitudes of mainland Chinese visitors. In general, the findings provide weak evidence for difference in attitudes between urban settings being caused by the intensity and quality of social interactions between visitors and residents. We found strong evidence for differences in attitudes between urban settings being attributable to visitors' self-selection of areas (Central, Mong Kok and Sha Tin) as urban settings. More specifically, differences in attitudes between urban settings (i.e. Central vs Sha Tin) are weakly caused by focused interactions and quality of interactions, but strongly caused by visitors' characteristics with respect to being repeat visitors and having a holiday and shopping purpose. We also found that more intensive and better interactions lead to visitors having more positive attitudes. Moreover, repeat visitors, visitors taking part in organized tours, and people visiting in order to see the sights, have a holiday or go shopping tend to hold positive attitudes towards social interactions with residents.

Chapter 6 presented the answer to the fifth and final research questions, namely:

What is the impact of social interactions on mutual understanding between mainland Chinese visitors and Hong Kong residents, and to what extent does this impact depend on social distance?

This chapter discussed the extent to which social interactions between visitors and residents contribute to a better mutual understanding and whether the impact depends on the social distance between mainland Chinese visitors and Hong Kong residents. First of all, focused interactions and good quality interactions both have positive effects on mutual understanding, with a stronger effect for good quality interactions. However, co-presence has no effect on the mutual understanding of visitors but negative effects on that of residents. Second, social distance negatively affects the quality of interactions, undermining the potential for the development or improvement of mutual understanding. However, social distance has no effect on co-presence or focused interaction. Overall, whether social interaction contributes to a greater mutual understanding mostly depends on the social distance. This means that the interaction only helps those people who perceive small social distances to start with. Social distance determines the mutual understanding through the quality of interaction. Focused interactions and co-presence are not defined by social distance but have significant effects on the mutual understanding. Moreover, social distance is significantly different between mainland Chinese visitors and Hong Kong residents, with a larger social distance for residents.

The research presented in Chapters 2–6 fulfilled the three research aims formulated in section 7.2.

1) Chapters 2 and 3 indicated potential encounters in time and space – and their changes over time – between mainland Chinese visitors and residents in Hong Kong. Specifically, Chapter 2 identified the central urban areas of Hong Kong, such as Tsim Sha Tsui, Mong Kok, Central and Causeway Bay, as potentially important places of spatial interactions between visitors and residents. Through visitor segmentation, Chapter 3 pinpointed additional places of potential encounter between day trippers and residents outside the central urban areas, including Sha Tin. The findings presented in both chapters provided the basis for selecting the different urban settings as survey locations for social interactions as the next step.

2) Chapter 4 presented an analysis of the intensity and quality of social interactions between mainland Chinese visitors and residents in diverse urban settings in

Hong Kong. Three dimensions underlying social interactions (i.e. co-presence, focused interaction and quality) were identified and investigated in three different urban settings (i.e. the city centre, a suburban area and a new urban tourism area).

3) Finally, Chapters 5 and 6 presented an analysis of the impacts of social interactions on mainland Chinese visitors and Hong Kong residents in terms of their attitudes and mutual understanding. We found that social interactions significantly affect visitors' attitudes and the mutual understanding between visitors and residents. Interestingly, social interactions tend to be defined by geographical contexts (urban settings) and initial attitudes (social distance). More specifically, positive attitudes or better mutual understanding tend to occur in those people who visit suburban areas or perceive small social distances to start with.

7.3 THEORETICAL IMPLICATIONS AND REFLECTIONS

7.3.1 SPATIAL HETEROGENEITY OF TOURISM ENCOUNTERS

A city is multifunctional in nature, and a large variety of users make use of its resources for diverse reasons and purposes in often the same urban spaces (Burtenshaw et al., 1991; Ashworth & Page, 2011). Visitors and residents are not set apart (Ashworth, 2012) but increasingly share and compete for the use of the same spaces and facilities within cities (Pearce, 2001). Divisions between zones where residents and visitors are active have blurred, shaping a new form of urban space usage in which both residents and visitors participate. Moreover, drawing on the 'vicious cycle model' (Russo, 2002), the spatial dynamics of visitors in urban destinations may differ for different types of visitors, namely day trippers and tourists. However, few studies have acknowledged the differences between day trippers and tourists in term of their spatial distribution, behaviour patterns and the places in which they may encounter residents. Moreover, in the case of Hong Kong, the day tripper issue is often related to cross-border travel. In addition, visitors from places near the border and from further away may have different travel motivations, such as utilitarian shopping in the case of the former and recreational shopping in the case of the latter. By taking the importance and complexity of the border context into account, day trippers and tourists can be further categorized into subgroups of visitors. Making such a categorization is relevant because tourism-induced problems such as pressure on the urban infrastructure and overcrowding in public spaces at a city scale may be caused by different subgroups of visitors.

The findings presented in Chapter 2 indicate the areas of potential encounters between visitors and residents by showing overlaps between where and when visitors and residents concentrate and generate hotspots in the city. This study (Chapter 2) contributes to the tourism literature by comparing the behaviour and the distribution patterns of visitors and residents in the same study – while most studies focus only on visitors' movements (e.g. Bujosa et al., 2015; Zoltan & McKercher, 2014) – and by revealing trends in distribution patterns over five years, while most studies cover a much shorter period (e.g. Li et al., 2018; Paldino et al., 2015). On the basis of these findings, the study presented in Chapter 3 further analysed the concentration and dispersion of different subgroups of visitors in the city. This contributes new insights to tourism literature because adequate statistical data on day trippers are often lacking and aggregate distribution patterns of different groups of city visitors are not considered in one study. Combining the findings presented in Chapters 2 and 3 further verifies the spatial heterogeneity of encounters between visitors and residents in cities.

Chapter 2 also verifies the overall spatial concentration of visitors' activities, while Chapter 3 reveals the heterogeneity within this overall concentration by looking at the aggregate activity patterns of day trippers and tourists from places near the border and from places further away. Specifically, visitors from mainland China icon general were more spatially concentrated, especially in the central urban areas of Hong Kong, whereas residents were more dispersed in the sense that they also visit suburban and exurban areas, which is consistent with previous studies (e.g. Lew & McKercher, 2014; Silvia et al., 2015). Most interactions between visitors and residents are likely to occur in locations within the central urban areas. This supports the double-sphere model of Kotus et al. (2015), namely that the main spaces of intensive contacts between visitors and residents are in the city centre. However, as opposed to previous studies (e.g. Fernández et al., 2016; Prentice et al., 1994; Stetic et al., 2011), our study shows that the aggregate activity pattern of day trippers is more spatially dispersed than that of tourists. However, segments of day trippers may still visit only a limited selection of the hotspots at the aggregate level, indicating that the findings of this study do not necessarily contradict previous studies on day trippers. At a city scale, interactions between visitors and residents are likely to occur in different urban contact zones, indicating the spatial heterogeneity of interactions between visitors and residents.

The two chapters combined also make a methodological contribution to current tourism studies. Chapter 2 contributes to distinguishing between visitors and residents. A process of 'double filtration' was applied with respect to both origin and length of stay using social media check-in data, in order to more accurately differentiate

visitors from residents – while most studies apply only one filter. Chapter 3 contributes to making a distinction between day trippers and tourists by proposing an approach using social media data to reconstruct visits. This enables a city-wide analysis of the origins and visits of tourists and day trippers across space and time. Overall, the methods and technology to measure the behavioural and distribution patterns of visitors include tracking; observation using cameras; trip diaries and questionnaires; high-tech equipment, such as GPS, RFID and virtual reality; and social media and big data, such as Flickr, Facebook messages, Foursquare check-ins and Weibo check-ins (e.g. Birenboim et al., 2013; Liu & Shi, 2019; Raun, Ahas & Tiru, 2016; Shoval et al., 2015; Versichele et al., 2014; Zheng et al., 2017). A growing number of studies have begun to use social media data to analyse visitors' spatio-temporal behaviours (e.g. Li et al., 2018; Liu & Shi, 2019; Vu et al., 2018; Wang et al., 2016; Yoo & Lee, 2015). An important advantage of using social media is that check-in data have a better coverage than survey data, for instance. Second, these check-in records have geotagged, time-stamped data and users' socio-demographic information, which enables detailed measures to distinguish different groups of visitors and residents based on their length of stay and origin.

7.3.2 GEOGRAPHICAL CONTEXTS FOR SOCIAL INTERACTIONS

The findings presented in Chapters 2 and 3 provided the foundation for further exploring where and when, and in what forms, encounters occur between visitors and residents in cities. The city centre of a city is usually the most important area for tourism activities (Lapko, 2014), because visitors mainly frequent officially designated tourism attractions and hotspots for visitors However, two recent tourism trends are changing the spatial activity patterns of visitors, namely decentralization (Russo, 2002) and new urban tourism (Füller & Michel, 2014; Maitland & Newman, 2004). The two trends to some extent counterbalance the overcrowding of city centres, because visitors are also making use of suburban and new urban tourism areas. Chapter 4 discussed the meaning of geographical contexts for social interactions between visitors and residents by looking at these three urban settings, namely the city centre, a suburban area and a new urban tourism area. Although previous studies have analysed social interactions between visitors and residents in urban areas, rural areas and urban–rural fringes (e.g. Gunce, 2003; Pizam, Uriely & Reichel, 2000; Zhang, Inbakaran & Jackson, 2006; Szytniewski, Spierings & Van der Velde, 2017), little attention has been paid to examining and comparing social interactions between visitors and residents in different urban settings within cities. Chapter 4 contributes to tourism studies by comparing three typical urban settings (city centre area, suburban area and new urban tourism area) for social interactions between visitors and residents within a city.

From the perspective of visitors, the findings presented in Chapter 4 are mostly in line with previous studies: less focused interactions and higher quality interactions occurred in Sha Tin (suburban setting) than in Central (city centre setting). However, contrary to expectations, it is not the case that relatively less co-presence occurs in Sha Tin. For Mong Kok, as expected, more co-presence seems to occur, and the quality of interaction appears to be higher, than in Central, but focused interaction does not seem to occur more often than in Central. From the perspective of residents, also as expected, Sha Tin (suburban area) stands out as a place with less co-presence and less focused interaction with visitors, and a higher quality of interaction. An important finding that does not support our hypotheses is related to Mong Kok as a new urban tourism area. The expectation that Mong Kok would be a site of both more co-presence and focused interaction and lower quality interaction was not substantiated by our study. New urban tourism is oriented towards an experience of the city beyond the 'official' tourism attractions: visitors stroll through ordinary but diverse and lively local neighbourhoods, eager for authentic experiences and local amenities (Füller & Michel, 2014; Pappalepore et al., 2010). New urban tourism areas are difficult to classify and have indistinct borders (Matoga & Pawłowska, 2016). On the basis of the characteristics of new urban tourism, previous studies often connected new urban tourism with areas that are off the beaten track. However, in our study (Chapter 4), we started from the point of view of visitors seeking authentic and local experiences in neighbourhoods. The different starting point may have led to different results in Mong Kok, because Mong Kok is a fairly well-established tourism area and is located in the central urban areas, while at the same time it can represent the true identity of Hong Kong.

Chapter 4's second contribution is the application of a bilateral approach to interactions by taking the perspectives of both visitors and residents into account and by investigating the asymmetry in visitor and resident experiences between different urban settings. Early studies attempted to clarify the attributes of social interactions between visitors and residents, such as unequal, unbalanced, brief, formal, temporary and non-repetitive between the two groups (e.g. Krippendorf, 1987; Reisinger & Turner, 2003; Sinkovics & Penz, 2009; Sutton, 1967). More recent case studies suggest that new urban tourism areas allow for more and better interactions for visitors, but not for residents (e.g. Maitland, 2010; Dai et al., 2017). The city centre area is generally understood as highly frequented by both visitors and residents, resulting in intensive but often troublesome interactions (e.g. Kotus et al., 2015). Suburban areas often offer fewer opportunities for visitors to encounter local residents other than those residents who provide services for them, leading to relatively fewer interactions with residents

(e.g. Prentice, Witt & Wydenbach, 1994; Su, Long, Wall & Jin, 2016). The results for asymmetry presented in Chapter 4 echo previous studies and also concerned diverse urban settings, which extends the well-known asymmetry between visitors and residents.

7.3.3 EFFECTS OF SOCIAL INTERACTIONS ON ATTITUDES AND MUTUAL UNDERSTANDING: THE ROLE OF GEOGRAPHICAL CONTEXT AND SOCIAL DISTANCE

The last two chapters of this thesis (Chapters 5 and 6) shift the focus from social interaction itself to its effect on the attitudes of and mutual understanding between visitors and residents. As discussed in Chapter 4, social interactions between visitors and residents differ across diverse urban settings. Precisely because of the diverse urban settings, different types of visitors may be attracted and different interactions with residents may take place, further influencing their attitudes towards interactions with the other. We tested whether visitors' and residents' attitudes differ across diverse urban settings. The results suggest that urban settings matter in shaping visitors' attitudes but do not have an influence on residents' attitudes. In fact, most Hong Kong residents hold negative attitudes towards mainland Chinese visitors. Chapter 5 further discussed the potential relationship between urban setting and visitor attitude towards interaction with residents. Previous studies suggest two competing hypotheses concerning this potential relationship. Under the first hypothesis (causation), the effect of urban setting on the attitude of visitors is mediated by social interaction between visitors and residents in the destination (e.g. Kotus, 2015; Luo, Brown & Huang, 2015; Su et al. 2016). Under the second hypothesis (selection), the effect is mediated by the individual characteristics of visitors, which define their attitudes (e.g. Caldeira & Kastenholz, 2018; Zhang, Ryan & Cave, 2016). The research underlying Chapter 5 contributes to tourism studies by testing and comparing the two competing hypotheses across three urban settings of a city in one study. The findings presented in Chapter 5 provide weak support for causation and strong support for selection. This leads to the new insight that the role of urban setting in shaping visitors' attitude towards interactions is related to the selection of different types of visitors rather than the facilitating of different types of social interactions between visitors and residents.

Tourism often brings visitors and residents together in social contacts, and such contacts can contribute to a greater mutual understanding between the two groups (Tomljenovic, 2010). Previous studies suggest that more intensive and higher quality interactions will contribute to a better understanding between visitors and residents (e.g. Andereck et al., 2005; Fan et al., 2017; Pizam et al., 2000; Su et al., 2016). Apart

from the intensity and quality of social interactions, the interaction that determines the potential for the development of greater mutual understanding is likely to be affected by the initial attitudes of visitors and residents. Initial attitudes towards other cultures and peoples can predict the occurrence of contacts (Fan et al., 2017). In international tourism contexts, when visitors and residents from different cultural backgrounds encounter each other they often have predispositions (Pi-Sunyer, 1989), which are often deeply rooted social attitudes. Among them, social distance as an indicator of prejudice can be evoked by many factors, such as historical events, internet sources, social media and learning from others (Celik, 2019). Previous studies suggest that a low degree of social distance increases the tolerance or intimacy towards the other, whereas a high degree of social distance might limit interactions (Woosnam & Lee, 2011; Yilmaz and Tasci, 2015). However, few studies have analysed the role and implications of social distance in the process of social interactions contributing to mutual understanding. Chapter 6 contributes to the literature by discussing the role of social distance in the process of social interaction in contributing to mutual understanding between visitors and residents. The findings again verify the matter of selection by showing that social interactions between visitors and residents only promote mutual understanding between visitors and residents who have small social distances from the start.

7.4 POLICY IMPLICATIONS

The findings presented in this thesis with respect to the concentration and dispersion of city users' activities, social interactions in diverse urban settings, and the impacts on their attitudes and understanding have several practical and policy implications for urban destinations.

Based on the results concerning the spatial concentration of the activities among day trippers, tourists and residents, for destination management and urban planning, the results concerning city users' spatio-temporal behaviours can indicate potential overcrowding in specific urban areas. Destination marketing could focus on developing and fine-tuning marketing campaigns and changing the supply of services and facilities to satisfy the needs of particular groups of visitors. Policymakers and urban planners could select, develop and market 'alternative' and relatively unknown tourism facilities in much less crowded suburban areas to spread the flow of visitors and possibly generate better quality social interactions between visitors and residents across the city. The temporal distribution of day trippers' and tourists' activities peak in

different time periods, such as specific days, weeks, seasons or holidays. This provides support for relaxing restrictions on visitor arrivals on weekdays and in the autumn and winter but tightening up at weekends and during holidays.

Many urban destinations try to spread visitors over different urban areas through dispersal strategies, and to do so may brand urban areas beyond the city centre as offering different types of social interactions – which could also further improve visitor experiences, attitudes or perceptions. However, this study suggests that different urban settings in a city like Hong Kong actually attract different types of visitors rather than facilitating different interactions with residents. When it comes to the attitude of visitors across diverse urban settings, the explanatory factor is not the social interaction between visitors and residents, but the visitors' characteristics. A more effective strategy for dispersal would therefore be to brand subcentres for specific market segments.

Considering the complex and long-term relationship between mainland Chinese and Hong Kong people, the aim of the present research was to find a way to promote the mutual understanding between mainland Chinese visitors and Hong Kong residents. The results suggest that focused, good quality interaction could contribute to a better understanding between visitors and residents, and that the quality is determined by the perceived social distance. The social distance between mainland Chinese and Hong Kong residents has formed over a long time period and it may be rather persistent and difficult to decrease. Thus, urban planners and policymakers could introduce some preferential policies to promote mutual understanding by increasing focused interactions for both visitors and residents but decreasing co-presence for residents. This echoes the dispersal strategy of spreading the flow of visitors over much less crowded suburban areas. Specifically, focused interaction can be increased by developing tourism facilities and promoting tourism activities in several suburban areas across the city. Co-presence can be decreased by redistributing visitors towards places some distance away from residents' activity areas.

Mainland Chinese visitors mainly travel for shopping activities. However, day trippers and tourists have different preferences regarding shopping activities: the former tend to do utilitarian shopping while the latter do recreational shopping. Urban planners and managers could therefore develop different strategies regarding day trippers and tourists. The 'day tripper' policy could target the hotspots of day trippers to mitigate overcrowding and the related nuisance by developing facilities for more utilitarian shopping at different locations in the city and promoting the use of such facilities in

existing but less known spaces in the city. The 'tourist' policy could deconcentrate the shopping activities of tourists in a similar way but with a focus on recreational shopping facilities.

In addition, acknowledging the complexity of a border context in understanding the spatio-temporal distribution of visitors may assist urban planners and destination managers in targeting policies at specific, 'problematic' groups – including cross-border traders – and the places where they tend to concentrate. Overcrowding and related nuisance for residents in border towns may be mitigated by providing specific warehouses for cross-border trading activities close to the border or at other easily accessible sites located outside these towns.

7.5 DIRECTIONS FOR FUTURE RESEARCH

In the present research, we applied social media data to analyse the spatio-temporal behaviours of day trippers, tourists and residents (Chapters 2 and 3). Regarding the quality and validity of the data, some limitations need to be discussed and related directions for future research should be pinpointed. The research focused on a specific group of Hong Kong visitors – mainland Chinese people – and we used Weibo check-in data because Weibo is one of the largest Chinese social media services and the most popular online social networking website in China. However, the representativeness of Weibo check-in data in China requires further investigation: not all visitors from mainland China make use of the Weibo platform when visiting Hong Kong, and it has a bias with respect to age and other demographic variables (Yuan, Wei & Lu, 2018). In addition, Hong Kong residents often use other social media such as Facebook and Twitter rather than Weibo. Thus, the results could be biased because the data may underrepresent specific subsets of day trippers, tourists and residents in Hong Kong, and the results are therefore difficult to generalize to all mainland Chinese visitors in and residents of Hong Kong. Combining Weibo check-in data with other data sources, such as other social media data or survey data, would help to better assess the quality and reliability of Weibo data for analysing spatio-temporal behaviour patterns.

Regarding the spatio-temporal behaviour patterns among day trippers, tourists and residents, Chapters 2 and 3 focused on the description and visualization of their concentration, dispersion and behavioural trends in the urban areas of Hong Kong, in order to provide an overview or overall map for further examining social interactions in these particular urban areas. However, the underlying factors explaining the spatio-

temporal behaviours of visitors and residents should be further analysed. Moreover, day trippers and tourists were differentiated through the algorithms we used. The algorithmic approximation of visits by tourists and day trippers rests on the assumption of regular check-in behaviour, which may not be met in each case and should be further tested by independent data sources.

On the basis of the analysis of spatio-temporal behaviour patterns of visitors and residents, we investigated social interactions between visitors and residents in diverse urban settings and the impacts of social interactions on their attitudes and mutual understanding. In doing so, social interaction and mutual understanding were measured by several items. These items were based on previous studies and on-site observations. Most items are related to specific groups of city users, namely mainland Chinese visitors and Hong Kong residents. Future studies could add and test more general items with respect to co-presence, focused interaction and quality of interaction (e.g. asking for information, taking local tours, participating in festivals) and mutual understanding (e.g. moral values, behavioural norms, national belonging) for a richer analysis of social interactions and mutual understanding between visitors and residents.

Regarding urban settings, three types of urban settings were compared in this research, which resonates with the city's two main policies for spreading visitor flows to other areas instead of the city centre, thus decentralizing visitors to subcentres outside the city centre and attracting specific tourism markets. In this research, we selected Central, Sha Tin and Mong Kok as cases. Future studies could select other or more urban neighbourhoods to analyse social interactions in different urban settings for a richer understanding of the importance of geographical contexts for tourism encounters and their social effects. For example, Tsim Sha Tsui is also the city core of Hong Kong and has suffered from overcrowding. Shuang Shui and Tuen Mun, which are close to the border with Shenzhen, would also be of interest because several fierce protests against mainland Chinese visitors have broken out in both of them. Sham Shui Po could be of interest as a typical local neighbourhood that has recently appeared on the visiting list of new urban visitors.

Furthermore, urban settings shape visitors' attitudes, mediated by visitors' characteristics rather than social interactions. In the present research, the theoretical model with two competing hypotheses was proposed based on early studies drawing on social contact theory. Specifically, both types of contact situations and types of individuals having contact may influence the attitudinal and behavioural results (Amir,

1969; Cook, 1962). However, why urban settings shape visitors' attitudes could be explained by other mediators, which should be explored in future studies by, for example, looking at prior experiences and visitors' personalities. Moreover, contact situation and individual characteristics were regarded as dependent mediators in the present study. The possible relationship between the two mediators should also be further investigated.

Following social interactions, visitors and residents may perform in different ways or adopt certain strategies to welcome or avoid encounters with each other. For example, due to the tendency of new urban tourists to visit quarters outside the city centre, residents' traditional strategies for coping with large numbers of visitors are failing. They may change their behaviours and develop new strategies to adapt to this phenomenon. These behavioural strategies could be explored by in-depth interviews in the future.

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A

APPENDIX I

SURVEY QUESTIONNAIRE OF MAINLAND CHINESE VISITORS

PART I. PLEASE CHOOSE "√" OR FILL IN THE QUESTIONS ACCORDING TO YOUR OWN SITUATIONS.

1. How many times ..... you have visited Central (Sha Tin/ Mong Kok); how long you will stay in Central (Sha Tin/ Mong Kok) this time?

① no more than 1 day
② between 2 ~ 7 days
③ more than 7 days

2. Your travel mode of this visit in Central (Sha Tin/ Mong Kok):

① Package Tour
② Family and/or friends
③ Alone
④ Partner
⑤ Organized by company/organization
⑥ Others .....
.....

3. Main purpose of visit:

① Sight-seeing
② Business
③ Conference/Exhibition
④ Holiday
⑤ Visiting friends or relatives
⑥ Shopping
⑦ Others .....
.....

4. What do you feel about this trip?

① Far below your expectations
② Below your expectations
③ More or less
④ Above your expectations
⑤ Far above your expectations

5. How are you satisfied with this trip in Central (Sha Tin/ Mong Kok)?
① Very dissatisfied
② Dissatisfied
③ Uncertain
④ Satisfied
⑤ Very satisfied

6. Do you want to visit Central (Sha Tin/ Mong Kok) again?
① Quite willing
② Willing
③ Uncertain
④ Unwilling
⑤ Quite unwilling

7. Do you want to recommend others to visit Central (Sha Tin/ Mong Kok)?
① Quite willing
② Willing
③ Uncertain
④ Unwilling
⑤ Quite unwilling

8. When do your interactions with residents usually occur in Central (Sha Tin/ Mong Kok)?
① Morning
② Afternoon
③ Evening

9. Where do your interactions with residents usually occur in Central (Sha Tin/ Mong Kok)?
.....
.....
.....
.....

PART II. WHEN YOU VISIT CENTRAL (SHA TIN/ MONG KOK)

How frequent when you contact with residents in the following daily encounters?

Please indicate your **Frequency of Contact** with tourists by ticking one box on the scale 1-7. **(1-Never, 7-Daily)**

You sit beside residents.	1	2	3	4	5	6	7
You chat with residents casually.	1	2	3	4	5	6	7
You ask residents for information, such as asking the way.	1	2	3	4	5	6	7
You are dining with residents in the same restaurant.	1	2	3	4	5	6	7
You meet residents when walking on the roads.	1	2	3	4	5	6	7
You meet residents when wandering in the area.	1	2	3	4	5	6	7
You have to walk around residents standing in the crowds.	1	2	3	4	5	6	7
You have your photos taken by residents.	1	2	3	4	5	6	7
Residents ask you to help them take photos.	1	2	3	4	5	6	7
You buy products from residents, such as food and drinks.	1	2	3	4	5	6	7
You meet residents on public transport, such as bus or subway.	1	2	3	4	5	6	7
You bargain with residents.	1	2	3	4	5	6	7
You argue or have conflicts with residents.	1	2	3	4	5	6	7
You make friends with residents, such as exchanging gifts or contact information.	1	2	3	4	5	6	7
You meet residents when you are shopping.	1	2	3	4	5	6	7
You are invited to resident's home.	1	2	3	4	5	6	7

PART III. WHEN YOU VISIT CENTRAL (SHA TIN/ MONG KOK)

How you felt when you have in contact with residents. Please indicate your level of agreement to each statement by ticking one from the numbers 1-7.

(1-Strongly Disagree, 7-Strongly Agree)

You interacted with residents harmoniously.	1	2	3	4	5	6	7
You felt friendly when interacted with residents.	1	2	3	4	5	6	7
You felt interesting when interacting with residents.	1	2	3	4	5	6	7
You felt your status was equal with residents when interacting with them.	1	2	3	4	5	6	7
Your interaction with residents happened in a cooperative way.	1	2	3	4	5	6	7
You felt close to residents when interacting with them.	1	2	3	4	5	6	7
You felt profound when interacting with residents.	1	2	3	4	5	6	7

PART IV. WHEN YOU VISIT CENTRAL (SHA TIN/ MONG KOK)

What you think of these interactions with residents and your attitude towards these interactions with residents. Please indicate your level of agreement to each statement by ticking one from the numbers 1-7. **(1-Strongly Disagree, 7-Strongly Agree)**

Interactions with residents improve the image of Hong Kong and Hong Kong people.	1	2	3	4	5	6	7
Interactions with residents make you know more about Hong Kong and their lives.	1	2	3	4	5	6	7
Interactions with residents enhance the cross-cultural understanding.	1	2	3	4	5	6	7
Interactions with residents make you understand cultural differences existing within Hong Kong.	1	2	3	4	5	6	7
Interactions with residents make you recognize the behavior difference between Hong Kong and mainland China.	1	2	3	4	5	6	7
Interactions with residents make you recognize the difference of financial conditions between Hong Kong and mainland China.	1	2	3	4	5	6	7
Interactions with residents reinforce the original culture.	1	2	3	4	5	6	7
Interactions with residents result in making new friends.	1	2	3	4	5	6	7
Interactions with residents enhance ethnic identity.	1	2	3	4	5	6	7

10. What is your general opinion about interacting with Hong Kong residents?

① Positive

② Neutral

③ Negative

11. Which statement is suitable for your extent of accepting Hong Kong residents?

① Accepting residents as someone who can be married to your close family member

② Accepting residents as your close friend attending the same club with you

③ Accepting residents as your neighbor in your neighborhood

④ Accepting residents as your colleague at your workplace

⑤ Accepting residents as a citizen in your city

⑥ Accepting residents as a tourist visiting your city

⑦ Not Accepting residents into your city, and hope they are far away from your city

12. Your gender:

① Male

② Female

13. Your age:

① 18-24 years old

② 25-34 years old

③ 35-44 years old

④ 45-54 years

⑤ 55 years or above

14. Where you are from (Residence): ..... (Province).....(City) ..... (County)

15. Main occupation:
① Civil servants
② Enterprise management personnel
③ Professional technical staff
④ Service sales and trade personnel
⑤ Worker
⑥ Farmer
⑦ Soldier
⑧ Student
⑨ Retired people
⑩ Others .....
.....

16. Your level of education:
① Primary school
② Junior high school level
③ Senior high school level
④ College
⑤ University
⑥ Master and above

17. Your personal monthly income:
① No income
② Less than 5,000 RMB
③ 5,001-8000 RMB
④ 8001-12000 RMB
⑤ 12001-16000 RMB
⑥ More than 16,000 RMB

APPENDIX II

SURVEY QUESTIONNAIRE OF HONG KONG RESIDENTS

PART I. PLEASE CHOOSE "√" OR FILL IN THE QUESTIONS ACCORDING TO YOUR OWN SITUATIONS.

1. Whether you are involved in tourism industry:

① Yes

② No

2. Which district you live in Hong Kong: _____;

Years of residence:

① Less than 1 year

② 1-4 years

③ 5-9 years

④ 10 years or above

3. Whether you are local resident?

① Native/Born in Hong Kong

② Move with your parents

③ Move with marriage

④ Move with job/business

⑤ The short-term migrant workers

⑥ Come here for study and training

⑦ Others

4. Central (Sha Tin/ Mong Kok) is important for me.

① Strongly Disagree

② Disagree

③ Uncertain

④ Agree

⑤ Strongly Agree

5. I have an emotional attachment to Central (Sha Tin/ Mong Kok)---it has meaning to me.

① Strongly Disagree

② Disagree

③ Uncertain

④ Agree

⑤ Strongly Agree

6. I am willing to invest my talent or time to make this an even better place.
① Quite Unwilling
② Unwilling
③ Uncertain
④ Willing
⑤ Quite Willing

7. I am willing to make financial supports for Central (Sha Tin/ Mong Kok).
① Quite Unwilling
② Unwilling
③ Uncertain
④ Willing
⑤ Quite Willing

8. When do your interactions with visitors usually occur in Central (Sha Tin/ Mong Kok)?
① Morning
② Afternoon
③ Evening

9. Where do your interactions with visitors usually occur in Central (Sha Tin/ Mong Kok)?
.....
.....
.....
.....

PART II. WHEN YOU ARE IN CENTRAL (SHA TIN/ MONG KOK)

How frequent when you contact with mainland Chinese visitors in the following daily encounters? Please indicate your **Frequency of Contact** with mainland Chinese visitors by ticking one box on the scale 1-7. **(1-Never, 7-Daily)**

You sit beside visitors.	1	2	3	4	5	6	7
You chat with visitors casually.	1	2	3	4	5	6	7
Visitors ask you for information, such as asking the way.	1	2	3	4	5	6	7
You are dining with visitors in the same restaurant.	1	2	3	4	5	6	7
You meet visitors when walking on the roads.	1	2	3	4	5	6	7
You meet visitors when wandering in the area.	1	2	3	4	5	6	7
You have to walk around visitors standing in the crowds.	1	2	3	4	5	6	7
You have your photos taken by visitors.	1	2	3	4	5	6	7
Visitors ask you to help them take photos.	1	2	3	4	5	6	7
Visitors buy products from you, such as food and drinks.	1	2	3	4	5	6	7
You meet visitors on public transport, such as bus or subway.	1	2	3	4	5	6	7
You bargain with visitors.	1	2	3	4	5	6	7
You argue or have conflicts with visitors.	1	2	3	4	5	6	7
You make friends with visitors, such as exchanging gifts or contact information.	1	2	3	4	5	6	7
You meet visitors when you are shopping.	1	2	3	4	5	6	7
You invite visitors to visit your home.	1	2	3	4	5	6	7

PART III. WHEN YOU ARE IN CENTRAL (SHA TIN/ MONG KOK)

How you felt when you have in contact with mainland Chinese visitors. Please indicate your level of agreement to each statement by ticking one from the numbers 1-7. **(1-Strongly Disagree, 7-Strongly Agree)**

You interacted with visitors harmoniously.	1	2	3	4	5	6	7
You felt friendly when interacted with visitors.	1	2	3	4	5	6	7
You felt interesting when interacting with visitors.	1	2	3	4	5	6	7
You felt your status was equal with visitors when interacting with them.	1	2	3	4	5	6	7
Your interaction with visitors happened in a cooperative way.	1	2	3	4	5	6	7
You felt close to visitors when interacting with them.	1	2	3	4	5	6	7
You felt profound when interacting with visitors.	1	2	3	4	5	6	7

PART IV. WHEN YOU VISIT CENTRAL (SHA TIN/ MONG KOK)

What you think of these interactions with residents and your attitude towards these interactions with residents. Please indicate your level of agreement to each statement by ticking one from the numbers 1-7. **(1-Strongly Disagree, 7-Strongly Agree)**

Interactions with mainland Chinese visitors improve the image of mainland China and mainland Chinese people.	1	2	3	4	5	6	7
Interactions with mainland Chinese visitors make you know more about mainland China and their lives.	1	2	3	4	5	6	7
Interactions with mainland Chinese visitors enhance the cross-cultural understanding.	1	2	3	4	5	6	7
Interactions with mainland Chinese visitors make you understand cultural differences existing within mainland China.	1	2	3	4	5	6	7
Interactions with mainland Chinese visitors make you recognize the difference between Hong Kong and mainland China.	1	2	3	4	5	6	7
Interactions with mainland Chinese visitors make you recognize the difference of financial conditions between Hong Kong and mainland China.	1	2	3	4	5	6	7
Interactions with mainland Chinese visitors reinforce the original culture.	1	2	3	4	5	6	7
Interactions with mainland Chinese visitors result in making new friends.	1	2	3	4	5	6	7
Interactions with mainland Chinese visitors enhance ethnic identity.	1	2	3	4	5	6	7

10. What is your general opinion about interacting with mainland Chinese visitors?

① Positive
② Neutral
③ Negative

11. Which statement is suitable for your extent of accepting mainland Chinese visitors?

① Accepting mainland Chinese visitors as someone who can be married to your close family member
② Accepting mainland Chinese visitors as your close friend attending the same club with you
③ Accepting mainland Chinese visitors as your neighbor in your neighborhood
④ Accepting mainland Chinese visitors as colleague at your workplace
⑤ Accepting mainland Chinese visitors as a citizen in your city
⑥ Accepting mainland Chinese visitors as a visitor visiting your city
⑦ Not Accepting visitors into your city, and hope they are far away from your city

12. Your gender:

① Male
② Female

13. Your age:

① 18-24 years old
② 25-34 years old

③ 35-44 years old
④ 45-54 years
⑤ 55 years or above

14. Your level of education:
① Primary school
② Junior high school level
③ Senior high school level
④ College
⑤ University
⑥ Master and above

15. Your personal monthly income (HKD):
① No income
② Below10,000
③ 10,000-20,000
④ 20,001-30,000
⑤ More than 30,000

16. Your residential status:
① Rental
② Own
③ Company dorms
④ Others .....
.....

17. Main occupation:
① Civil servants
② Enterprise management personnel
③ Professional technical staff
④ Service sales and trade personnel
⑤ Worker
⑥ Farmer
⑦ Soldier
⑧ Student
⑨ Retired people
⑩ Others .....
.....

.....

SUMMARY

Urban tourism is a significant and visible factor in the economy and social life of many cities in the world. Tourism has beneficial effects for both visitors and residents and is commonly supposed to contribute to better mutual understanding. Yet, many urban destinations are now suffering from overcrowding due to the excessive growth in visitor numbers. The overcrowding is detrimental to encounters occurring between visitors and residents and is even generating social tensions or conflicts. Hong Kong, as one of the world's most densely populated residential area, has experienced tourism-related overcrowding. Most visitor arrivals (more than 70%) in Hong Kong are from mainland China, due to the geographical proximity and economic, historic and social bonds between Hong Kong and mainland China. This raises the question how the encounters between mainland Chinese visitors and residents in Hong Kong contribute to the Hong Kong-mainland China relations. To find the answer, it is essential to understand where encounters take place, what forms of encounters are occurring and what impacts these encounters have on the attitudes and mutual understanding between mainland Chinese visitors and residents in Hong Kong.

This study starts by analysing and comparing the spatio-temporal behaviour patterns of mainland Chinese visitors and Hong Kong residents based on Weibo check-in data, to identify the potential locations of interactions between the two groups in Hong Kong. The findings show that in aggregate, visitors' spatial patterns are more concentrated in central urban areas, whereas residents' patterns are more dispersed and also include suburban and exurban areas. The temporal patterns of visitors vary significantly whereas residents are rather stable over time. Most interactions between mainland Chinese visitors and residents are therefore likely to occur in locations within central urban areas. However, the results also showed large variation in spatial and temporal patterns between four different types of visitors: day trippers versus tourists and within these categories, visitors from neighbouring Shenzhen and the rest of Mainland China.

Hong Kong actually attracts more day trippers than tourists Visitors from Shenzhen – the border city – have an advantaged position in terms of visa policy and geographical location compared to other visitors from mainland China, enabling them to visit Hong Kong more often, particularly as day-trippers. The results based on Weibo check-in data show that the spatial pattern of day trippers is more dispersed than that of tourists. The dispersion of day trippers is most prevalent for the visitors from Shenzhen, day-tripper from other origins concentrate more in a limited number of hotspots. Visits of day trippers are more concentrated in the daytime and weekends than visits of

tourists, which are more evenly distributed over time. This temporal concentration of day trippers is also most prevalent for the visitors from Shenzhen. These findings provided the basis for selecting three urban settings as survey locations to study social interactions in the next step.

In response to, among others, the overcrowding of city centres, two trends have surfaced: the rise of tourist attractions outside the centre as an addition or alternative to the centre, and the rise of new urban tourism in which visitors leave the beaten track to enjoy the authentic life of a place. These trends give rise to different urban setting for encounters between visitors and residents and therefore to differences in the intensity and quality of the social interaction.

Three urban settings have been chosen for this study: the city centre area (Central), a suburban leisure/shopping area (Sha Tin) and a new urban tourism area (Mong Kok). Using an on-line survey in Mainland China among respondents that have visited these places and an off-line survey among residents in these places that the encounters and social interaction have been measured. Three dimensions have been extracted from the data on social interaction: mere co-presence, more focused interaction and the perceived quality of the interaction. From the visitor perspective, Sha Tin as a suburban setting, shows less focussed interaction but a higher quality than the city centre. In Mong Kok as a new urban tourism setting, more co-presence occurs, and the quality of interaction appears to be only slightly higher than in the centre. When it comes to resident the perspective, Sha Tin, being less crowded than the centre, shows less co-presence and better quality as expected. Contrary to expectations, Mong Kok as a new urban tourism did not differ significantly from the centre on all three dimensions. Overall, suburban setting tends to provide better interactions for both visitors and residents. Visitors experience a better quality of interactions than residents in all settings, but the asymmetry is smaller in the suburban setting.

The next step in the analysis is to see whether the attitudes of tourist towards the interaction with residents differs between urban settings and whether that is related to the intensity and quality of the interaction. The results show that, indeed, the attitudes of mainland Chinese visitors towards interactions with residents in Hong Kong are found to be more positive in some urban settings than others and again Sha Tin stands out. And we find that in general more intensive and better interactions are associated with more positive attitudes. Yet we also find that positive attitudes are related to personal characteristics; repeat visitors, holiday makes and shoppers, are more positive. This raises the question why some urban settings show more positive

attitudes among their visitors. Two competing hypotheses were tested. First, that some settings provide more intense and better interactions (a matter of causation). Second, that some settings attract more visitors with positive attitudes (a matter of selection). The results show that different urban settings actually select different types of visitors rather providing intensive and better interactions. These findings are pertinent to strategies of managed growth of tourism in cities. Creating sub-centres for visitors will be more effective if these are developed as specific product-market combinations.

The intensity and quality of interactions are related to more positive attitudes, but do they also contribute to a better mutual understanding? And is this true for everyone or does this depend on the initial social distance. This study examines effects of the intensity and quality of interactions on mutual understanding between visitors and residents by acknowledging the role and implication of social distance. We find that mere co-presence does not affect the understanding by visitors and negatively affects the understanding by residents. Higher intensity in the form of focused interaction has a moderate positive effect on the mutual understanding of both visitors and residents. High quality of the interaction is a major factor in predicting the mutual understanding for both but depends on the initial social distance. In particular, the residents of Hong Kong that report a large social distance to mainland Chinese also evaluate the quality of the interaction with tourists as poor and as not contributing to mutual understanding. Tourism can contribute to mutual understanding, but only when the social distance is small to start with.

Greater global mobility and the information boom will lead to higher levels of urban tourism demand. Encounters with people and engagements in space become the central part of urban tourism. The impacts of these encounters on the attitudes and mutual understanding between visitors and residents are not as simple as many thinks. This dissertation adds to the existing body of knowledge in several ways. It reveals the spatial heterogeneity of tourism encounters, the meaning of geographical contexts for tourism encounters, the impacts of tourism encounters on the attitudes and mutual understanding, and the role of geographical context and social distance in these impacts. The findings of this dissertation also have several practical and policy implications. Urban planners could select, develop and market ‘alternative’ and relatively unknown tourism facilities in less crowded suburban areas to spread the flow of visitors and possibly generate better quality of social interactions between visitors and residents across the city. A more effective strategy for dispersal would therefore be to brand subcentres for specific market segments. Policymakers could introduce some preferential policies to promote mutual understanding by increasing focused

interactions for both visitors and residents but decreasing co-presence for residents. Yet the beneficial effects of tourism should not be overstated. A large initial social distance between the two populations will hamper the intensity and quality of the interactions, precluding their positive effects on mutual understanding.

A

SAMENVATTING

Stadstoerisme is een belangrijke en zichtbare factor in de economie en het maatschappelijk leven van veel steden overal ter wereld. Toerisme heeft positieve effecten voor zowel bezoekers als bewoners en wordt algemeen verondersteld bij te dragen aan een beter wederzijds begrip. Door een overmatige groei van het toerisme hebben veel populaire steden nu echter te kampen met een te grote drukte. Deze drukte is schadelijk voor ontmoetingen tussen bezoekers en bewoners en leidt zelfs tot sociale spanningen en conflicten. Hongkong heeft als een van 's werelds dichtst bevolkte woongebieden ook te maken met te grote drukte door toerisme. De meeste toeristen in Hongkong (meer dan 70%) komen van het Chinese vasteland, vanwege de geografische nabijheid en de economische, historische en maatschappelijke banden tussen Hongkong en het Chinese vasteland. Dit roept de vraag op hoe ontmoetingen tussen bezoekers uit het Chinese vasteland en bewoners van Hongkong bijdragen aan de betrekkingen tussen Hongkong en China. Voor het antwoord op deze vraag is het essentieel om te weten waar de ontmoetingen plaatsvinden, welke vormen de ontmoetingen aannemen en welke gevolgen de ontmoetingen hebben voor de houding en het wederzijds begrip tussen bezoekers uit het Chinese vasteland en bewoners van Hongkong.

Dit onderzoek begint met een analyse en vergelijking van de ruimtelijke en temporele gedragspatronen van bezoekers uit het Chinese vasteland en bewoners van Hongkong, op basis van incheckgegevens uit de berichtenservice Weibo, waarmee mogelijke locaties van interacties tussen de twee groepen in Hongkong kunnen worden gevonden. Uit de resultaten blijkt dat over het geheel genomen de ruimtelijke patronen van bezoekers meer geconcentreerd zijn in centrale stedelijke gebieden, terwijl de patronen van de bewoners meer over de stad verspreid zijn, en ook voorsteden en buitenwijken omvatten. De temporele patronen van bezoekers variëren aanzienlijk, terwijl die van bewoners vrij stabiel zijn. De meeste interacties tussen bezoekers uit het Chinese vasteland en bewoners vinden daarom waarschijnlijk plaats op locaties in de centrale stedelijke gebieden. De resultaten lieten echter ook een grote variatie zien in ruimtelijke en temporele patronen tussen vier verschillende soorten bezoekers: dagjesmensen versus verblijfsrecreanten en, binnen deze categorieën, bezoekers uit het naburige Shenzhen en uit de rest van het Chinese vasteland.

Hongkong trekt meer dagjesmensen dan verblijfsrecreanten aan. Bezoekers uit de grensstad Shenzhen zijn wat visumbeleid en geografische ligging betreft in het voordeel ten opzichte van andere bezoekers uit het Chinese vasteland, waardoor ze

Hongkong vaker kunnen bezoeken, vooral als dagjesmensen. De resultaten van de Weibo-incheckgegevens laten zien dat het ruimtelijke patroon van dagjesmensen meer verspreid is dan dat van verblijfsrecreanten. De verspreiding van dagjesmensen is het meest te zien bij de bezoekers uit Shenzhen; dagjesmensen van andere herkomst concentreren zich meer in een beperkt aantal hotspots. Bezoeken van dagjesmensen zijn meer overdag en in het weekend geconcentreerd dan bezoeken van verblijfsrecreanten, die gelijkmatiger verdeeld zijn in de tijd. Deze temporele concentratie van dagjesmensen is ook het meest te zien bij de bezoekers uit Shenzhen. Deze bevindingen vormden de basis voor de selectie van drie stedelijke locaties om in de volgende stap sociale interacties te onderzoeken.

Als reactie op onder meer de te grote drukte in de stadscentra zijn er twee trends ontstaan: de opkomst van toeristische attracties buiten het centrum als aanvulling of alternatief op het centrum, en de opkomst van een nieuw soort stadstoerisme waarbij bezoekers voor een authentieke beleving de gebaande paden verlaten. Deze trends geven aanleiding tot verschillende settings voor ontmoetingen tussen bezoekers en bewoners, en dus ook tot verschillen in de intensiteit en kwaliteit van de sociale interactie.

Voor dit onderzoek zijn drie stedelijke omgevingen gekozen: het stadscentrum (Central), een voorstedelijk recreatie- en winkelgebied (Sha Tin) en een gebied met nieuw stadstoerisme (Mong Kok). Met behulp van een online enquête op het Chinese vasteland onder respondenten die deze plaatsen hebben bezocht, en een offline enquête onder de bewoners van deze plekken, zijn de ontmoetingen en sociale interactie gemeten. Uit de gegevens over sociale interactie zijn drie dimensies gehaald: louter gelijktijdige aanwezigheid, gerichtere interactie en de ervaren kwaliteit van de interactie. Vanuit het perspectief van de bezoekers vertoont Sha Tin als voorstedelijke setting minder gerichte interactie maar wel een hogere kwaliteit dan het stadscentrum. In Mong Kok als setting voor nieuw stadstoerisme is er meer gelijktijdige aanwezigheid en lijkt de kwaliteit van de interactie slechts iets hoger te zijn dan in het centrum. Wat het perspectief van de bewoner betreft, laat Sha Tin, waar het minder druk is dan in het centrum, zoals verwacht minder gelijktijdige aanwezigheid en betere kwaliteit zien. Tegen de verwachtingen in verschilde Mong Kok als locatie van nieuw stadstoerisme op alle drie de dimensies niet significant van het centrum. Over het geheel genomen biedt de voorstedelijke setting betere interacties voor zowel bezoekers als bewoners. Bezoekers ervaren in alle settings een betere kwaliteit van de interacties dan bewoners, maar de asymmetrie is kleiner in de voorstedelijke setting.

De volgende stap in de analyse is om te zien of de houding van de toerist ten opzichte van de interactie met de bewoners anders is in de verschillende stedelijke settings, en of dat verband houdt met de intensiteit en de kwaliteit van de interactie. De resultaten laten zien dat de houding van bezoekers uit het Chinese vasteland ten opzichte van interacties met bewoners van Hongkong in sommige stedelijke settings positiever zijn dan in andere, met name in Sha Tin. En we constateren dat in het algemeen intensievere en betere interacties gepaard gaan met positievere houdingen. We constateren echter ook dat positieve houdingen gerelateerd zijn aan persoonlijke kenmerken; terugkerende bezoekers, vakantiegangers en shoppers hebben een positievere houding. Dit roept de vraag op waarom in sommige stedelijke settings een positievere houding te zien is bij de bezoekers. We hebben twee mogelijke hypotheses getest. Ten eerste dat in sommige settings de interacties intenser en beter zijn (causaliteit), en ten tweede dat sommige settings meer bezoekers met een positieve houding aantrekken (selectie). De resultaten tonen aan dat verschillende stedelijke settings verschillende soorten bezoekers aantrekken, en niet zozeer voor intensievere of betere interacties zorgen. Deze bevindingen zijn relevant voor strategieën voor een beheerste groei van het toerisme in steden. Het creëren van subcentra voor bezoekers zal effectiever zijn als deze worden ontwikkeld als specifieke product-marktcombinaties.

De intensiteit en de kwaliteit van interacties zijn gerelateerd aan positievere houdingen, maar dragen ze ook bij aan een beter wederzijds begrip? En geldt dit voor iedereen of hangt dit af van de aanvankelijke sociale afstand? In deze studie onderzoeken we de effecten van de intensiteit en de kwaliteit van de interacties op wederzijds begrip tussen bezoekers en bewoners, met erkenning van de rol en de implicaties van sociale afstand. We constateren dat louter gelijktijdige aanwezigheid geen invloed heeft op het begrip bij bezoekers, en bij bewoners juist voor minder begrip zorgt. Een hogere intensiteit in de vorm van gerichte interactie heeft een matig positief effect op het wederzijds begrip bij zowel bezoekers als bewoners. Hoge kwaliteit van de interactie is bij beide groepen een belangrijke factor voor het voorspellen van het wederzijds begrip, maar is afhankelijk van de aanvankelijke sociale afstand. In het bijzonder waarderen de bewoners van Hongkong die een grote sociale afstand melden tot Chinezen van het vasteland, de kwaliteit van de interactie met bezoekers als slecht, en vinden ze dat deze niet bijdraagt aan wederzijds begrip. Toerisme kan bijdragen aan wederzijds begrip, maar alleen als de sociale afstand van tevoren al klein is.

De grotere mondiale mobiliteit en de toenemende rol van informatie zullen tot een grotere vraag naar stadstoerisme leiden. Ontmoetingen met mensen en contact in de stedelijke ruimte worden het centrale onderdeel van stadstoerisme. De impact

van deze ontmoetingen voor de houding en het wederzijds begrip tussen bezoekers en bewoners is niet zo eenvoudig als veel mensen denken. Dit proefschrift vormt op verschillende punten een toevoeging aan de bestaande kennis. Het toont de ruimtelijke heterogeniteit van toeristische ontmoetingen, de betekenis van geografische context voor toeristische ontmoetingen, de impact van toeristische ontmoetingen voor houding en wederzijds begrip, en de rol van de geografische context en sociale afstand bij deze impact. De bevindingen van dit proefschrift hebben ook een aantal praktische en beleidsmatige implicaties. Stedenbouwkundigen kunnen 'alternatieve' en relatief onbekende toeristische voorzieningen in minder drukke voorstedelijke gebieden selecteren, ontwikkelen en vermarkten, om de bezoekersstroom te spreiden en mogelijk op meerdere plekken in de stad betere sociale interacties tussen bezoekers en bewoners te genereren. Een effectievere strategie voor verspreiding zou daarom zijn om subcentra te promoten voor specifieke marktsegmenten. Beleidsmakers zouden voorkeursbeleid kunnen invoeren om het wederzijds begrip te bevorderen, door gerichte interacties te bevorderen voor zowel bezoekers als bewoners, maar gelijktijdige aanwezigheid voor bewoners te verminderen. Toch moeten de gunstige effecten van toerisme niet worden overdreven. Een grote aanvankelijke sociale afstand tussen de twee groepen zal de intensiteit en de kwaliteit van de interacties belemmeren, waardoor er geen positieve effecten op het wederzijds begrip optreden.

A

CURRICULUM VITAE

Xing Su was born on 4 February 1991 in Huainan, Anhui, China. She completed her Bachelor's study at Nanjing University of Information Science & Technology, China (2008-2012). She continued her Master's study in Human Geography at Nanjing University, China (2012-2015). During the Master phase, she joined UNESCO Project - Conservation and Management of World Heritage Sites in China (Phase II) - Visitor Management Planning for Mount Sanqingshan National Park, and Project - Research on Impact of Unexpected Crisis on Tourism Destination - A Case Study of Jiuzhaigou supported by National Natural Science Foundation of China. In 2015, she started to pursue a Doctoral degree at the Department of Human Geography and Spatial Planning, Faculty of Geosciences, Utrecht University. From 2015 through 2019, she was responsible for her own research project - Spatial and Social Interactions Between Mainland Chinese Visitors and Residents in Hong Kong. Her works have been published in several international journals (e.g. Current Issues in Tourism, Asia Pacific Journal of Tourism Research) and present in several international conferences (e.g. 3rd Global Tourism and Hospitality Conference, 4th World Research Summit for Tourism Hospitality).


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