Regional city integration and its impacts on tourism development

Abstract

Bay areas have experienced a rapid development in their city integration and tourism industry over the past decade. However, city integration has rarely been studied in the tourism literature along with its dimensions and impact on tourism development. Therefore, this study examines city integration and its effects on tourism development from the perspective of residents in the Greater Bay Area, China. Through a qualitative research method with 73 semi-structured interviews, this study identified five dimensions of the effects of city integration on tourism development were also determined, including resource, community, product, marketing and economic dimensions. The theoretical contributions and practical implications of the findings were also discussed.

Keywords: City integration; urbanization; tourism development; resident perceptions; Greater Bay Area.

Introduction

The bay area is a new form of city integration that serves as a critical stimulator of global economic growth and technological innovation (Hui, Li, Chen, & Lang, 2018). According to Walker and Schafran (2015), bay areas account for more than 60% of the global economy, and the migration of people from inland areas to coastal areas has become increasingly obvious. The bay areas of San Francisco, New York, Tokyo and Guangdong–Hong Kong–Macau Greater Bay Area (GBA) are four known well-developed bay areas that have undergone rapid urbanisation in recent decades (Hui et al., 2018). The GBA comprises nine cities (Guangzhou, Shenzhen, Zhuhai, Dongguan, Foshan, Jiangmen, Zhaoqing, Zhongshan and Huizhou in Guangdong Province) and two special administrative regions (Hong Kong and Macau) (Luo & Lam, 2020).

Previous studies show that cities offer disproportionate contributions to the national economy due to their focus on the production of goods and services, especially for the tourism industry. Tourism development is affected by urbanisation due to the fact that tourism is considered a service activity (Luo, Qiu, Goh, & Wang, 2016). However, city integration has rarely been studied in the tourism literature along with its dimensions and impact on tourism development, revealing a first research gap of this study.

From mid-1970s, extensive empirical and theoretical studies have investigated residents' perceived impacts on tourism development (Sirakaya, Teye, & Sönmez, 2002). Although a wealth of studies has examined residents' perceived impacts on tourism development (Puczkó & Rátz, 2000; Stylidis, Biran, Sit, & Szivas, 2014; Rasoolimanesh, Ringle, Jaafar, & Ramayah, 2017), limited research has investigated residents' perceived impacts of city integration on tourism development, indicating a second research gap in this study. Furthermore, as tourism development in the GBA remains a relatively new focus, the residents' perceptions and attitude towards the regional tourism development remain underdeveloped and have been treated as a unified concept.

However, as city integration involves multiple destinations normally with different statuses regarding economy, geographical location, subculture and tourism development, residents from different cities should not be granted to hold the same

perceptions towards city integration and its impacts on tourism development. The overgeneralisation of the residents' perceptions could lead to the imbalanced development and residents' anti-tourist behaviours (Fan, 2020). Therefore, different resident voices regarding the GBA led tourism development deserve a thorough investigation. Due to the lack of research identifying the heterogeneity of residents' perceptions towards tourism development, a third research gap is identified.

To bridge these gaps, this study aims to identify the impacts of city integration on tourism development from the perspective of residents in the GBA, so as to achieve the sustainable development of tourism in the GBA. The research objectives of this study are (1) to identify the city integration factors and how they influence tourism development; (2) to compare the differences of resident perceived impacts of city integration on tourism development across different cities; and (3) to provide practical solutions to relevant stakeholders regarding the implementation of sustainable tourism development in GBA.

Theoretically, this research contributes to the literature of city integration and tourism development by enriching the understanding of how regional city cooperation can promote tourism development. It also pioneers the destination resident studies by identifying their different views towards the regional tourism development, leading to a social sustainability of tourism. Practically, this research is expected to guide policymakers and practitioners in maximising the positive impacts of city integration on tourism development whilst minimising its negative impacts.

Literature review

City integration is a type of regional urbanisation that emphasises the cooperation between a city and its neighbouring cities. Typical examples of integrated cities include Greater London, Helsinki Espoo, Greater Paris and Sandnes–Stavanger. The history of city integration can be traced back to the term 'cityregion' used by Geddes (1915) to describe those cities with compact geographical locations that became interconnected economically and administratively through well-developed networks, such as dense flows of people, highways, high-speed railways and telecommunication cables (Meijers, 2005). People, goods, services, capital, information, culture, customs and knowledge

are being exchanged amongst cities in a region, which would ultimately lead to high levels of integration amongst these cities. These integrated cities in turn would contribute to regional resource complementation, improve the region's innovation capabilities and increase its economic benefits and overall competitiveness.

Many studies have explored the dimensions of urbanisation, but the dimensions of city integration are yet to be investigated. Given that city integration is a form of regional urbanisation, this study builds a theoretical framework of city integration based on the definitions of this concept and the dimensions of urbanisation. From the literature review, this framework can be constructed based on the four main dimensions of population, economy, socio-culture and geographical landscape (Table 1). The population dimension can be divided into population proportion in urban areas and non-agricultural population. The increase in the proportion of population in urban areas or the non-agricultural population represents an increase in the level of urbanisation given that urbanisation is generally regarded as a product of modernisation and industrialisation (United Nations, 2010; Luo, Qiu, Goh, & Wang, 2016).

GDP per capita and share of service industry in GDP are both grouped under the economic dimension. Luo (2016) argued that the level of urbanisation in a province is positively correlated with economic development level, which can be measured by population density, GDP per capita and proportion of the service industry in GDP. The sociocultural dimension includes lifestyle and number of hospital beds. Ou, Li, Liu and Chen (2004) assessed urbanisation level based on quality of life and highlighted its impact on people's social life. Green areas and transport facilities can be used to measure the geographical landscape dimension. As cities continue to develop, the demand for industrialised land will increase, whereas the land area of gardens and other green areas will decrease (Forman, 2008). The construction of transportation facilities can also reduce transportation costs and encourage urbanisation (Birth & Wachter, 2011).

(Insert Table 1 here)

Impacts of urbanisation on tourism development

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Although several studies have explored the impacts of urbanisation on tourism development, how such effects take place has not yet been analysed in depth (Luo, Qin & Lam, 2015; Luo et al., 2016). In addition, city integration has rarely been studied in the tourism literature along with its impact on tourism development. City integration is a type of regional urbanisation that relies on physical integration, such as transportation, information and capital (Luo & Lam, 2020). Based on a review of the literature on the impact of urbanisation on the tourism industry (Mamirkulova, Mi, Abbas, Mahmood, & Ziapour, 2020; Luo et al., 2015; Zaidan, 2016; Luo et al., 2016; Nazneen, Xu, & Din, 2019), this study identified six dimensions, including positive and negative economic impacts, sociocultural impacts, and environmental impacts (Table 2).

(Insert Table 2 here)

Urbanisation has a positive effect on tourism. The economic dimension shows a trade-off between travel time and time to reach a destination, which suggests that travel demand decreases along with increasing travel distance (McKercher & Lew, 2003). Improved tourism infrastructure can meet the needs of tourists and serves as the basis for the growth of the tourism industry (Mamirkulova et al., 2020). City-to-city cooperation can help create a good business environment and bring cross-boundary investments into a tourism destination, which will result in the creation of additional job opportunities (Luo & Lam, 2020; Nazneen, Xu, & Din, 2019). For the sociocultural dimension, infrastructure upgrades (e.g. theatres or parks) can stimulate recreational and cultural activities, such as concerts, movies and sports competitions (García, Vázquez, & Macías, 2015). Cultural differences motivate residents and tourists to engage in a cross-cultural exchange (García et al., 2015; Zaidan, 2016).

Urbanisation may also negatively affect tourism development. From an economic perspective, developing a destination for the purpose of economic development through infrastructure construction will increase the cost of goods and services (Nazneen et al., 2019; Rasoolimanesh et al., 2017). From a sociocultural perspective, neighbouring cities often share the same culture and characteristics, and the level of complementarity amongst them decreases along with increasing competition (Luo & Lam, 2020; Nazneen et al., 2019; Luo et al., 2016). Increasing population density may also lead to overcrowding and strain the tourist carrying capacity of cities (Almeida–Garcia, Angeles Pelaez–Fernandez, Balbuena–Vazquez, & Cortes–Macias, 2016).

Urbanisation may also destroy tourism resources by promoting the creation of attractive yet fragile environments (Nazneen et al., 2019; Luo et al., 2016).

Methodology

Qualitative method was applied in this study to analyse the impacts of city integration on tourism development from the perception of residents in the GBA. A semi-structured interview with open-ended questions was conducted to collect the personal information of the interviewees. The interview questionnaire was divided into two sections, with the former asking questions related to the residents' perceptions of the effect of city integration on tourism development (e.g. 'In your opinion, what are the city integration factors that may influence tourism development in the GBA?' and 'What do you think about the effect of city integration on tourism development in the GBA, including at the regional and city levels?') and the latter asking questions about the demographic information of the interviewees. The questions were formulated based on previous research on urbanisation and its impacts on tourism development (Mamirkulova et al., 2020; Luo et al., 2016; Luo & Lam, 2020; Zaidan, 2016; Nazneen et al., 2019).

Purposive sampling and snowball sampling were both adopted for the data collection. Purposive sampling was conducted to find interviewees satisfying two key criteria. On the one hand, these interviewees should be residents of the GBA. On the other hand, these interviewees should have a primary residence in the GBA. With these criteria, individuals with a solid understanding of the effects of city integration on tourism development in the GBA were invited to participate in the interview. These interviewees were also asked to invite other qualified people to be interviewed. The researchers attempted to obtain diverse samples by including residents of different cities within the GBA.

The number of interviewees was not set in advance; instead, the researchers continuously conducted interviews until no new information could be retrieved from the interviewees (Glaser & Strauss, 1967). A total of 73 interviews were conducted from July to October 2019, with each interview lasting for 20 to 30 minutes. The interviews were mainly conducted in Mandarin, although Cantonese and English were also used depending on the preferences of the interviewees. All interviews were

recorded with the permission of the interviewees and were immediately transcribed. The transcripts were also sent to the interviewees for them to verify the accuracy of the interview content. After the interviews were recorded, transcribed and verified, the collected information was inputted into NVivo 12.0 for further analysis.

Thematic analysis was conducted to analyse the data. Content analysis allowed the researchers to examine the transcripts and investigate their contents independently without being guided by any theory or concept; in this way, the interview results can be worth discussing (Jennings, 2001). In addition, researchers work collaboratively until consistent and similar results are achieved and no additional information is discovered from the interviews. These researchers performed coding through a bottom up approach and studied the transcripts separately in the initial coding process. The coding process involved four steps, namely, identify meaningful text units (phrases or sentences representing points made by the interviewees), categorise text units into different child nodes in NVivo, classify these child nodes into different nodes in NVivo and explain the topics.

Results

Table 3 summarises the demographic information of the interviewees. The proportion of interviewees, the most were from Hong Kong and Guangzhou (16.4%) and the least were from Jiangmen (1.4%), respectively. More than half (54.8%) of the interviewees were working staff, and the majority (43.9%) of them had master's degrees. Most of these interviewees were aged between 25 and 34 years. The sample had a nearly equal male to female ratio. Amongst the interviewees, 71.2% were living in the GBA for more than 10 years.

(Insert Table 3 here)

City integration and its dimensions

The first objective of this research was to identify the city integration factors that affect tourism development in the GBA. One key question for the interviewees was 'In your opinion, what are the city integration factors that may influence tourism development in the Guangdong–Hong Kong–Macau Greater Bay Area?' Figure 1 illustrates the interview results.

(Insert Figure 1 here)

As shown in Figure 1, the interview responses shared some common themes that can be divided into seven dimensions. Firstly, the geographical landscape dimension, which covers infrastructure and accessibility, was the most-mentioned city integration factor. For example, the interviewees shared that:

> *'The transportation network in the Greater Bay Area is very developed now. Public infrastructure, such as railways, subways and highways, together constitute the One-Hour Living Circle of the Greater Bay Area. Especially, the completion of the Hong Kong–Zhuhai–Macau Bridge has greatly shortened the distance between Guangdong Province, Hongkong and Macau' (Interviewee 29).*

Secondly, the cultural integration dimension included three sub-dimensions, namely, cultural integration, lifestyle and educational and medical integration. One interviewee mentioned,

> *'To a certain extent, city integration is cultural integration, which is a process of mutual influence between Lingnan culture and Western culture' (Interviewee 18), whereas another interviewee shared, 'Third-tier cities have more communication opportunities with first-tier cities in terms of healthcare and education, I think it has improved the medical and educational level of the Greater Bay Area' (Interviewee 13).*

Thirdly, economic integration, share of service sector in GDP and per capita GDP were grouped under the economic dimension. One interviewee shared,

> *'I think the major cities in the Greater Bay Area have a radiating effect on the economy of the surrounding small and medium-sized cities. In other words, the economy of big cities promotes the economic growth of small and medium-sized cities' (Interviewee 16).*

Fourthly, for the population dimension, the interviewee responses could be further divided into population mobility and population proportion in urban areas. One interviewee shared, '*Convenient transportation, such as high-speed rail, has caused*

large-scale population migration and floating. Now the Greater Bay Area has people from all over the country' (Interviewee 22).

Several dimensions that were identified in this research were not reported in the literature. The first dimension was information, which could be divided into three types, with the first being 'arts and humanities data'. One interviewee shared,

> *'In terms of resource sharing, the tourism resources of each city in the Greater Bay Area have their own characteristics. For example, Hong Kong's shopping tour, Macau's gaming industry, Zhuhai's coastal tourism, Guangzhou's Chime-Long Xiangjiang Safari Park and Shenzhen's Overseas Chinese Town. These diverse tourism resources can be shared and can be complementary to one another' (Interviewee 54).*

The second type was 'governmental administration data'. One interviewee shared,

> *The local government shares information on population, land, housing price, personal employment and income, healthcare and education and other information with other cities' governments to deal with certain problems, such as rising cost of living, rising housing prices, traffic congestion and environmental pollution. (Interviewee 55)*

The third type was 'urban infrastructure data'. One interviewee mentioned that

> *The traffic in big cities and small cities is very heavy. I know that the government has set up a transport sensor system to share the traffic data of persons, vehicles and roads. Urban traffic operations and scheduling management are carried out based on these data, which can relieve the pressure on the city transportation. (Interviewee 36)*

The second dimension that was not mentioned in correlational research was policy. The responses related to this dimension can be further classified into city-to-city (GBA) and national policies. One interviewee mentioned,

> *The Guangdong Provincial Government signed a Framework Agreement with Hong Kong and Macau. These agreements can further promote system integration in these three regions' (Interviewee 46)*, whereas another interviewee shared, '*The*

State Council issued the Development Plan for Guangdong–Hong Kong–Macau Greater Bay Area to promote cooperation in the Greater Bay Area. (Interviewee 22)

The third dimension not mentioned in the literature was government management, which included four sub-dimensions, with the first being 'jurisdictional adjustment'. One interviewee said, *'The government has broken through the traditional administration system and has improved administrative efficiency and further promoted Guangdong–Macau cooperation by establishing the Hengqin Administrative Committee' (Interviewee 63)*. The second sub-dimension was 'port management'. One interviewee shared that

The customs clearance process has been simplified a lot. For example, it is possible to apply for visas in different places and using self-service machines. Moreover, the implementation of license plates in two places has facilitated the entry and exit of Guangdong–Hong Kong and Guangdong–Macau license plates from multiple ports. (Interviewee 13)

The third sub-dimension was 'talent management'. One interviewee shared,

In order to attract talents to settle down, the government regarded Nansha, Qianhai and Hengqin as Guangdong–Hong Kong–Macau Talent Cooperation Demonstration Zones and National Talent Management Pilot Reform Zones. The main measures I have learned are allowing Hong Kong and Macau residents to apply for employment permits, paying housing provident funds, relaxing the threshold for Hong Kong and Macau professionals to practice and providing all-in-one card services for foreign top talents. (Interviewee 59)

The fourth sub-dimension was 'land management. One interviewee shared, *'The Greater Bay Area is a highly-developed city agglomeration that includes three regions and two systems. The land management system is also different from other regions. Therefore, the government has unceasingly adopted some innovative land management systems' (Interviewee 64)*.

Effect of city integration on tourism development

Another objective of this research was to explore the main effects of city integration on tourism development in the GBA. The interviewees were asked, 'What do you think about the effect of city integration on tourism development at the Greater Bay Area, including at the regional and city levels?' Figure 2 illustrates the interview findings.

(Insert Figure 2 here)

Resource, community, product, marketing and economy were all identified as the main effects of city integration on tourism development in the GBA, with resource being the most-mentioned dimension. Meanwhile, 'complement tourism resources' was the most-mentioned resource sub-dimension after being cited by the interviewees 73 times.

> *'The tourism resources of various cities in the Greater Bay Area are abundant and diverse. For example, Macau has integrated resorts such as Sands, Venetian, Wynn, Parisian, and Zhuhai has the Chimenlong Ocean Kingdom. City integration allows Macau residents to visit Zhuhai and Zhuhai residents to visit Macau so as to achieve the complementary advantages of these resources' (Interviewee 50).*

Some points in the community dimension were raised frequently by the interviewees, such as 'balanced regional development' and 'enlarged regional gap', with the former being mentioned 50 times. One interviewee shared,

> *'I think developed cities can give some support to backward cities. Take transportation as an example. Developed cities have complete subway facilities. They can share some of their experiences or provide some help to backward cities with their internal construction. In this way, the gap between cities will be narrowed' (Interviewee 27).*

By contrast, 'enlarged regional gap' was mentioned 17 times, with one interviewee sharing that

> *'The impact is definitely different. I think it has a greater impact on big cities, and the gaps between big cities and small cities are widening because the big cities' excellent infrastructure facilities can attract more tourists. Small cities will not attract tourists if they have no characteristics' (Interviewee 50).*

For the impact of city integration on tourism products, several recurring points emerged from the interviews, such as 'new tourism products' and 'tourism product similarity'. For 'new tourism products', one interviewee shared,

> *'Zhuhai's Chimelong Ocean Kingdom and Guangzhou's Chimelong Safari Park are integrated with the help of the Greater Bay Area. For example, you will get a discounted package and direct bus transfer services if you buy tickets for two scenic spots together' (Interviewee 46).*

'Tourism product similarity' was mentioned 37 times, with one interviewee stating that *'The downside is that it is easy for Hong Kong to lose its own characteristics. Some special tourism activities are not allowed in mainland, such as horse race, which may lose its characteristics after city integration' (Interviewee 69).*

For the marketing dimension, 'increased tourist arrival', 'capital investment to tourism industry', 'increased employment opportunities' and 'increased consumption costs' were identified as sub-dimensions. Among them, 'increased tourist arrival' was mentioned 28 times, with Shenzhen and Guangzhou residents mentioning this sub-dimension 6 and 4 times, respectively. However, Jiangmen residents did not mention this sub-dimension at all. In terms of 'capital investment to tourism industry', one interviewee mentioned that

> *'The main change should be that many residents of Macau will start companies in the mainland, such as Hengqin. After the Greater Bay Area was established, many measures were implemented to help people start a company or business, which attract many people, like Macau residents, to develop' (Interviewee 1).*

For the economic effect, the responses were classified into 'scale economics', 'increase tourism revenue', and 'branding effect'. Among them, 'scale economics' was mentioned 33 times, with one interviewee stating that *'City integration is equivalent to building 11 cities in the Greater Bay Area into an economic community. I think city integration can further promote the overall economic development of the Greater Bay Area because tourism promotes consumption' (Interviewee 27).*

For 'branding effect', one interviewee shared,

'In the past, each city promoted its own city brand in the form of individuals. After these cities are integrated, they will conduct a brand promotion at home and abroad in a collective form, which will greatly promote the establishment and influence of the tourism brand image' (Interviewee 63).

However, residents of Macau, Guangzhou, Jiangmen and Huizhou did not mention this sub-dimension during the interviews.

Comparison of resident perceptions across different cities

This study compares the differences in the effects of city integration on tourism development by residents of cities with different political systems in the GBA. Residents were divided into two groups: Hong Kong and Macau, and nine cities in Guangdong. The frequency distribution of these two groups was presented in Figure 3, respectively. Negative perceived impacts were placed on most area on the left side of the radar chart, and positive perceived impacts were placed on the right side of the radar chart. Hong Kong and Macau Residents could be described as "Realists". They perceived many positive impacts and believe that city integration would play an active role in complementing tourism resources, new tourism product, scale economies, strengthening cross-cultural communication, and increasing tourist arrival. However, they also acknowledged negative impacts and focus more on tourism product similarity, and social and cultural conflict.

Residents of nine cities in Guangdong could be labeled as "Favorers". This group held strongly positive views on the impact of city integration on tourism development. Consistent with residents of Hong Kong and Macau, they also greatly agreed that city integration would complement tourism resources and bring new tourism product. In addition, they highly agreed that balancing regional development, enhancing sense of identity, and promoting scale economies are positive impacts that cannot be ignored. Unlike another group, the negative impacts of this group were significantly less than that of another group. They only concerned with enlarging regional gap. Generally, residents of nine cities in Guangdong adopt a more favorable perceptions of the impact of city integration on tourism development than residents of Hong Kong and Macau.

(Insert Figure 3 here)

Discussion

City integration–resource nexus

Seven dimensions of city integration and five dimensions of its effect on tourism development in the GBA were eventually identified (Figure 4). City integration helps complement tourism resources. Each city in the GBA has its own tourism characteristics. For instance, Shenzhen and Guangzhou are famous for their urban tourism, Macau is famous for its gaming tourism, Zhuhai is famous for its health tourism, Zhaoqing is famous for its ecological tourism and Hong Kong is famous for its shopping hubs (Kirillova et al., 2020). Arts and humanities data include tourism resources, language and artistic and material culture (Pan, Tian, Liu, Gu, & Hua, 2016). Cities in the GBA can serve as tourist destinations and sources at the same time by sharing arts and humanities data. In addition, complementary tourism resources benefit from national and city-to-city government policies.

(Insert Figure 4 here)

The population dimension has negative impacts on tourism resources, such as by placing additional pressure on tourist carrying capacity and destroying tourism resources. However, population mobility was not considered a factor of city integration. Wang, Wei, Liu, He and Gao (2019) defined population mobility as the flow of population amongst different regions, which is consistent with the findings from the interviews, that is, people undergo long- or short-term movements amongst cities to settle or travel. Such large flow of people inevitably brings damage to tourist carrying capacity and tourism resources. Therefore, governments and tourism industry managers should adopt certain measures to control the flow of population in scenic spots and to prevent tourists from demonstrating uncivilised behaviour.

City integration–community nexus

City integration balances regional development. For the policy dimension of city integration, the 'Outline Development Plan for the GBA' and the 'One Belt, One Road' initiative greatly reduced regional restrictions in the GBA, thereby enabling its three

regions to complement their advantages, coordinate their resources and share their markets (Luo & Lam, 2020). In addition, the information dimension of city integration contributes to balancing regional development. The big data of cities reflect the real-time status of their various elements (e.g. traffic, environment and buildings). With these data, governments can develop an improved understanding of city operations, which in turn can help them make smart city management decisions and optimise their allocation of city resources (Pan et al., 2016).

Nevertheless, city integration may also enlarge regional gaps, which contradicts its goal of balancing regional development. One possible explanation for such phenomenon is the gap separating core cities from non-core ones. Balancing regional development is not an easy task because the 11 cities in the GBA are heterogeneous and greatly differ in their histories, customs, urban formation and identities, population size and density (Kirillova et al., 2020). Therefore, governments should introduce relevant policies and encourage cooperation and competition behaviour in the region to promote inner cohesion and aim for joint competition (Nilsson, Eskilsson, & Ek, 2010).

Whilst the sociocultural dimension of city integration can strengthen cross-cultural communication and enhance sense of identity, this dimension may also lead to social and cultural conflicts. Social and cultural conflicts become inevitable when huge differences are observed in the culture and lifestyle of two parties and when cross-cultural adaptability is impossible (Reisinger & Turner, 2003). Therefore, tourism-related departments should not only understand the social and cultural conflicts between tourists and residents but also continuously monitor the level of these conflicts to minimise future conflicts and ensure a harmonious tourist–resident cultural communication (Tsaur, Yen, & Teng, 2018).

City integration–product nexus

City integration provides opportunities for developing new tourism products and enhancing tourist attraction. The geographical landscape dimension, as one of the important city integration factors that affect new tourism products and tourist attraction, was further classified into the infrastructure and accessibility sub-dimensions. However, accessibility was not directly considered an important city integration dimension in

previous studies. The key factor in the formation and success of the GBA is the construction of roads and bridges, such as the Zhuhai–Hong Kong–Macau Bridge, Shenzhen–Zhongshan Corridor and Guangzhou–Macau New Channel (Hui et al., 2018). Therefore, accessibility has changed the traditional way of traveling from one trip and one destination to one trip and multiple destinations, which increases the attractiveness of tourism (Luo & Lam, 2020).

However, city integration also has negative impacts on tourism products, such as by increasing the similarities amongst tourism products and reducing the authenticity of tourist experiences. The similarity amongst tourism products was the most frequently mentioned sub-dimension by residents of Zhuhai and Shenzhen, which can be ascribed to the similarities in their geographic locations and cultures as well as to their close links to the transportation, economy and politics of cities in Guangdong (Kirillova et al., 2020). Such similarity may also result from the lack of government policies. Therefore, governments should issue policies that can guide the development of tourism products that evoke the characteristics of their respective cities. The economic dimension of city integration triggers the modernisation and commercialisation of remote areas in the GBA. The commercialisation of tourism destinations also reduces the authenticity and value of tourism destinations (Cole, 2007).

City integration–marketing nexus
The government management, policy and economic dimensions are beneficial in increasing capital investment, increasing tourist arrival, and employment opportunities in the tourism industry. The innovation of the government management system in the GBA takes taxes, customs supervision, talent introduction and land into consideration, thereby opening up more space for the future development of its financial, education, medical, technology and service industries (Altrock & Schoon, 2014). In addition, port management makes travel convenient for tourists, such as by issuing entry visas and license plates that are recognised in more than one location. Meanwhile, the policy dimension of city integration allows cities to jointly develop a tourism brand and create a branding effect. Therefore, the governments of cities in the GBA should build a consistent brand by identifying the characteristics of cooperation cities and integrating their complementary components.

City integration–economy nexus

Scale economics and branding effect, as the economic impacts of city integration on tourism development, were not discussed in the literature. In terms of scale economics, the effect of integrating cities in the GBA is not simply one plus one; a scale effect arises when resources are efficiently allocated and when the elements are highly concentrated. Economists usually regard GDP per capita as the average income of a macro economy and observe a positive relationship between city integration and income (Luo et al., 2016). The consumption of tourism goods and services by tourists has been growing in recent years. For example, the gaming expenditures of tourists in Macau increased by 14% year over year, thereby driving up their direct tourism consumption by 13.2% in 2018 (DSEC, 2020).

Conclusion and implications

This study offers several theoretical and practical contributions. Firstly, as its most salient theoretical contribution, this study is a pioneering research on city integration that investigated its impact on tourism development in the GBA from seven dimensions, including geographical landscape, sociocultural, economic, information, policy, government management and population. Three new factors were also identified in this work, namely, information, policy and government management, by comparing the results of the thematic analysis with the proposed framework. Determining the city integration dimension can contribute novel insights to the city integration literature and provide a solid theoretical basis for future quantitative research.

Secondly, this study revealed that city integration has both positive and negative effects on tourism development from the perspective of residents. Nine additional sub-impacts were also identified, namely, complement tourism resources, balanced regional development, enlarged regional gap, enhance sense of identity, new tourism products (multi-destination travel), reduced authenticity of tourist experiences, enhance tourist attraction, scale economies and branding effect, by comparing the results of the thematic analysis with those of related studies. Thirdly, there were differences in perceived impacts between residents of cities with different systems in the GBA. Residents of Hong Kong and Macau could be described as "Realists", while residents

of nine cities in Guangdong as "Favorers". Residents of cities with different system firmly convinced that city integration would contribute to tourism development, especially in complementing tourism resources and producing new tourism products.

However, compared with residents of Hong Kong and Macau, residents of nine cities in Guangdong had a more positive perception, such as balancing regional development, enhancing sense of identity, and promoting scale economies. The negative perception impact of Hong Kong and Macau Residents was stronger than that of residents of nine cities in Guangdong, mainly in tourism product similarity, and social and cultural conflict. Such difference can be ascribed to the cities in the GBA are heterogeneous with varying histories, customs, urban formation and identities, population size and density, geographic locations, infrastructure and economic levels.

This study also provides recommendations for city management and tourism industry practitioners that are aiming towards city integration. Firstly, the seven dimensions of city integration identified in this study can be used as references for policy making in the GBA. The geographical landscape dimension was identified as the most important factor of city integration that can affect tourism development. Therefore, central and local governments should attach great importance to geographical landscape in their tourism development efforts and strengthen infrastructure construction when developing their tourism industry.

Secondly, administrators of cities with different systems should formulate policies that are conducive to their tourism development whilst taking the characteristics of their cities into account. The absence of relevant policies was identified as one of the reasons for the similarity in tourism products. Therefore, governments should design specific policies to position the tourism image of their cities. They should avoid emphasising heritage and tradition because tourist attractions in GBA cities greatly differ from one another. For instance, Guangzhou is famous for its cultural heritage attractions and traditional Lingnan culture, whereas the emerging city Shenzhen has a short history and is not suitable for heritage tourism.

In addition, tourism-related departments should investigate the differences in tourist attractions in the three regions of the GBA when developing tourism products. For example, as the 'Monte Carlo of the Orient', tourism developers in Macau should focus on developing its gaming industry. Meanwhile, given that Hong Kong is described as a 'shopping paradise', developers should focus on promoting shopping tourism. Guangdong Province has a Chinese cultural heritage and a natural landscape, which are suitable for developing its cultural and green tourism.

Thirdly, governments and tourism-related departments should formulate and implement sustainable plans based on residents' perceived impacts to minimise the negative impacts of city integration on tourism development. The top three most frequently mentioned negative influences during the interviews were tourism product similarity, social and cultural conflicts, and overcrowding. The problem of tourism product similarity can be solved by capturing the diversity of member cities and developing their tourism whilst taking their characteristics into account (Nilsson et al., 2010). To reduce social and cultural conflicts, tourism-related departments can promote a tourist-friendly service concept and provide tourists with information about the cultural and customs of their cities (Tsaur et al., 2018).

Meanwhile, tourism managers should also take the necessary measures to control the flow of scenic spots. For example, the number of tourists they receive per day should be controlled at approximately 30% of their tourist carrying capacity by making appointments mandatory. In general, the residents in this study tend to attribute the negative impact of city integration on tourism development mainly to tourists rather than themselves, which may have an adverse effect on the sustainability of the tourism industry (Puczkó & Rátz, 2000). Therefore, regional and national policy makers are responsible for introducing long-term thinking and providing a framework for residents to participate in the sustainable development of tourism.

This study is the first to investigate city integration and its impacts on tourism development in the GBA from the perspective of its residents. By applying a qualitative approach with 73 semi-structured interviews, this study identified 7 dimensions of city integration, namely, geographical landscape, sociocultural, economic, information,

policy, government management and population. Five dimensions of the effects of city integration on tourism development were also determined, namely, resource, community, product, marketing and economy. In addition, residents of cities with different systems in the GBA showed different perceptions towards the effects of city integration on tourism development.

This research has several limitations that warrant further investigation. Firstly, this study only focused on the perspectives of residents. Future research can focus on other stakeholders, such as government workers and tour operators. Secondly, this study took the GBA as a case study. Therefore, the results may not accurately represent the impact of city integration on tourism development in other regions. Thirdly, this study is still at the initial stage and only applied a qualitative method. Future research can use the results of this study as reference and develop a scale for measuring the perceptions of residents towards the impacts of city integration on tourism development to obtain quantifiable results.

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Table1. Demographics information of interviewees (N=73).

Demographics	Frequency	%
Location		
Hong Kong	9	12.3
Macau	9	12.3
Guangzhou	12	16.4
Shenzhen	12	16.4
Zhuhai	10	13.7
Zhongshan	4	5.5
Foshan	8	11.1
Dongguan	2	2.7
Jiangmen	1	1.4
Huizhou	2	2.7
Zhaoqing	4	5.5
Occupation		
Working	40	54.8
Housewife	1	1.4
Student	23	31.5
Retire	7	9.6
Other	2	2.7
Education		
High School or below	5	6.8
Diploma	7	9.6
Bachelor	29	39.7
Master or above	32	43.9
Age		
18-24	16	21.9
25-34	31	42.4
35-44	8	11.0
45-54	8	11.0
55-64	7	9.6
65+	3	4.1
Gender		
Male	37	50.7
Female	36	49.3
Years in Great Bay Area		
Under 10 years	21	28.8
10-20 years	14	19.2
21-30 years	21	28.7
Over 30 years	17	23.3

Figure
Figure 1. Map of the GBA. (Source: drawn by authors)

(Source: drawn by authors)

Figure 2. City integration dimensions
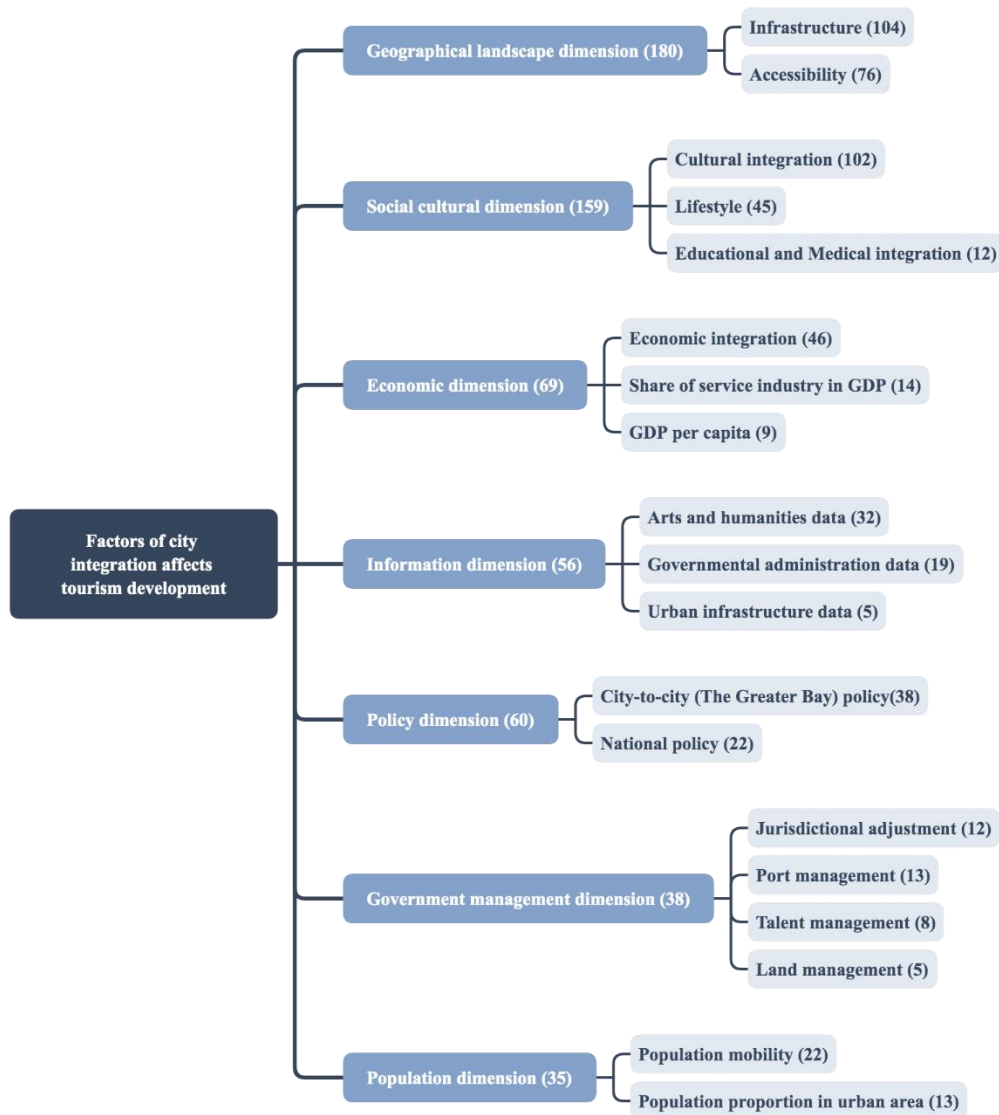
(Note: The number in the brackets next to each dimension means the number of text units counted.)

Figure 3. Tourism development and its dimension.
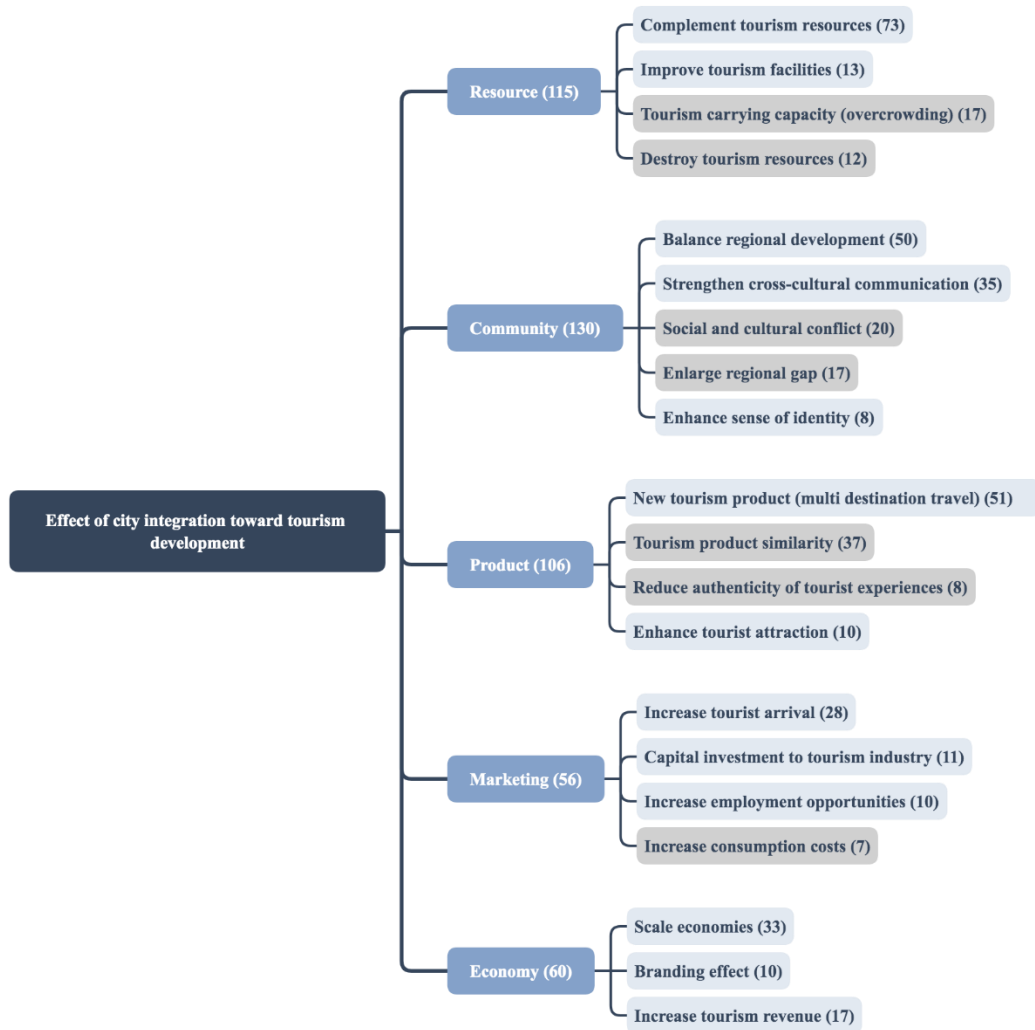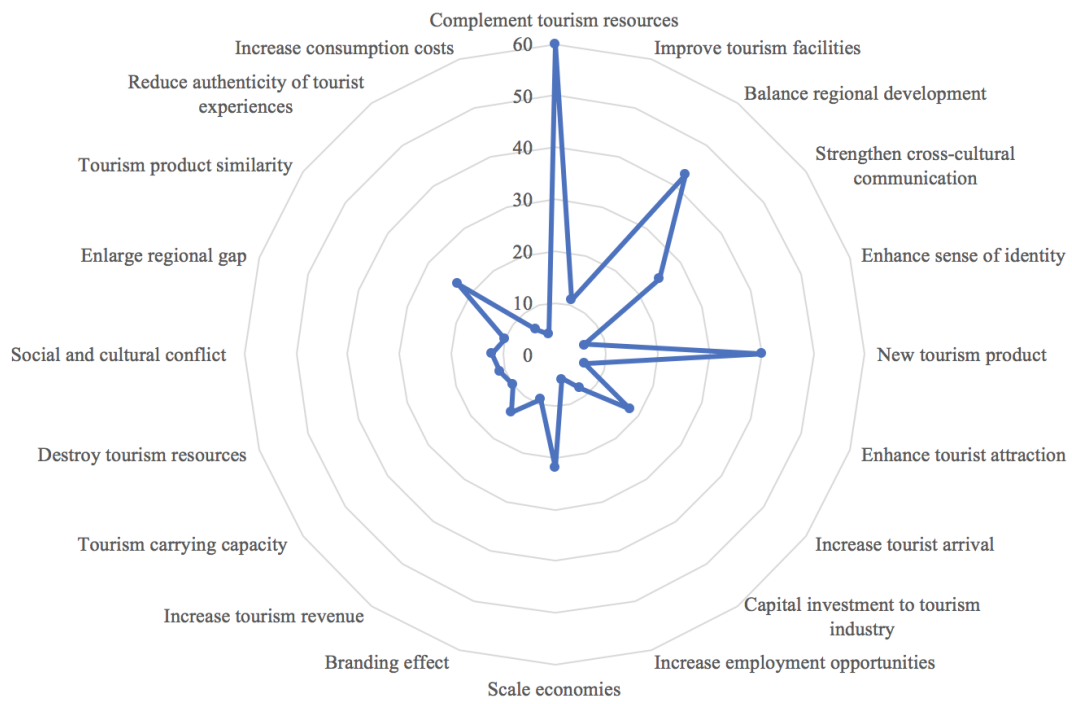

(Note: The number in the brackets next to each dimension means the number of text units counted; light blue color represents positive influences; light gray color represents negative influences.)

Figure 4. Frequency of each sub-dimension mentioned by residents in Hong Kong and Macau.
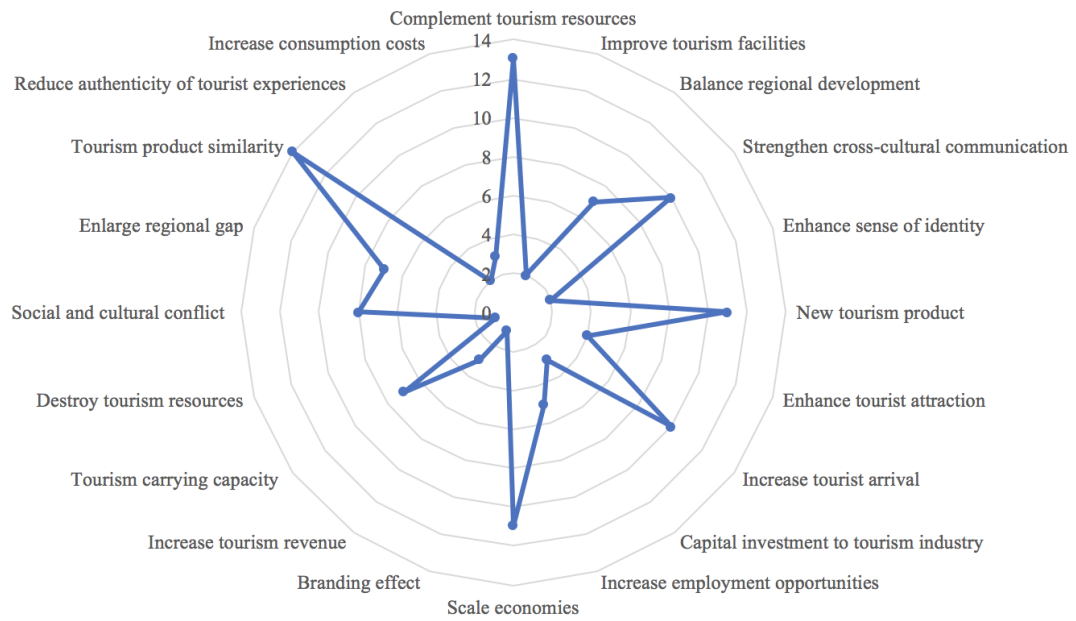
Figure 5. Frequency of each sub-dimension mentioned by residents in nine cities in Guangdong.

Figure 6. The revised framework.

City integration → **Tourism development**

City integration	Tourism development
Geographical landscape dimension 　Infrastructure 　Accessibility **Social cultural dimension** 　Cultural integration 　Lifestyle 　Educational and medical integration **Economic dimension** 　Economic integration 　Share of service sector in GDP 　per capita GDP **Information dimension** 　Arts and humanities data 　Governmental administration data 　Urban infrastructure data **Policy dimension** 　City-to-city policy 　National policy **Government management dimension** 　Jurisdictional adjustment 　Port management 　Talent management 　Land management **Population dimension** 　Population mobility 　Population proportion in urban area	**Resource** 　Complement tourism resources 　Improve tourism facilities 　Tourism carrying capacity 　(Overcrowding) 　Destroy tourism resources **Community** 　Balance regional development 　Strengthen cross-cultural communication 　Social and cultural conflict 　Enlarge regional gap 　Enhance sense of identity **Product** 　New tourism product (multi destination 　travel) 　Tourism product similarity 　Reduce authenticity of tourist 　experiences 　Enhance tourist attraction **Marketing** 　Increase tourist arrival 　Capital investment to tourism industry 　Increase employment opportunities 　Increase consumption costs **Economy** 　Scale economies 　Branding effect 　Increase tourism revenue