What Impacts The Revisit Intention Of Tourists? An Application Of Hierarchical Ordered Probit Model

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Abstract

Macao, which has long been perceived as a popular gambling tourist destination, is currently encountering new problems, such as the constant decline of casino revenues. To revitalize Macao's casino industry and to enhance tourists' revisit intention, this study first identified the main activities undertaken by tourists and their satisfaction level. Thereafter, we scrutinized the relationship between tourists' satisfaction level and their revisit intention by hierarchical ordered probit model. The findings indicated that gambling satisfaction is positively related to tourists' revisit intention. Moreover, trip arrangement (i.e., individual traveler vs. group traveler) is highly connected with their revisit intention. Furthermore, customers who have a strong intention to recommend the destination to their friends and relatives are more likely to revisit Macao in the future. To maintain and upgrade tourists' satisfaction level, transforming gambling to a type of experience that combines pleasure and enjoyment can be considered.

Keywords: Revisit intention, Macao's tourism, Tourist Satisfaction, Hierarchical ordered probit model

Introduction

Macao, which lies on the western side of the Pearl River Delta, is described as "The Las Vegas of the Far East" (The Economist, 2013), and is known as the most famous gambling destination in the Asia-Pacific region. Since 2010, the number of tourists from Mainland China, Hong Kong, and Taiwan has considerably increased (Park, Lee, & Miller, 2014). In 2014, the total tourist arrival in Macao reached more than 31 million (Macau Tourism Industry Net, 2015). In recent years, the main activities of tourists include gambling, shopping, visiting tourist attractions, and other similar activities. Despite scrutiny in previous studies, activity-related tourist satisfaction continues to have a significant influence on tourists' selection of destination, consumption of products and services, and their intention to revisit (Gursoy, McCleary, & Lepsito, 2003; Kozak & Rimmington, 2000). According to Law, Cheung, and Lo (2004), the activities affecting tourist satisfaction level are those related to cultural heritage diversity, entertainment, and shopping. Park et al. (2014)

showed that Western tourists have the highest overall satisfaction when traveling to Macao, followed by Hong Kong residents, and Taiwanese. In the 2000s, Macao's tourism industry primarily depended on gambling tourism, along with other activities connected with gambling, such as shopping inside casinos. Nevertheless, Macao posted its first annual decline in gambling revenue in 2014, which fell by 2.6 percent or 351.5 billion patacas (US$44 billion) compared with that in 2013 (O'Keeffe, 2015). The situation worsened beginning in February 2015 when the gross gaming revenue of the world's biggest gambling hub declined by 49 percent or 19.5 billion patacas ($2.4 billion) (Lin & Loo, 2015). Moreover, WOODHOUSE (2015) reported that the David Group will be closing four out of five gaming rooms, including those at the Wynn and MGM. The aforementioned data indicate that Macao is presently facing increasing threats to its major industry.

Confronted with such situation, increasing tourists' revisit intention to Macao, retaining Macao's competitiveness, and improving the returns from marketing investments have to be considered (Kim, Park, Gazzoli, & Sheng, 2011). The views on Macao's future development are controversial. For example, Nadkarni and Leong (2007) suggested that Macao should develop leisure elements to create a competitive advantage over its regional competitors (e.g., Hong Kong) and to attract high-spending business tourists. Other researchers proposed that Macao can be re-established as the "Las Vegas of Asia," making it an integrated gaming and meetings, incentives, conferencing, and exhibitions (MICE) resort (McCartney, 2008; Tang, Choi, Morrison, & Lehto, 2009). By contrast, Gu (2004) argued that the Las Vegas business model of "gaming, entertainment, convention, and shopping" may be an unsuitable approach for Macao. The researcher explained that the Las Vegas model may increase the competition against non-gaming destinations, including Hong Kong and other nearby Chinese cities, along with the construction of the Hong Kong–Zhuhai–Macao Bridge. Gu (2006) also highlighted the need for Macao to focus on product differentiation (e.g., gaming service products) through a revenue management strategy. This strategy can be used as a means to compete effectively against the emerging gaming destinations in nearby Asian countries, as well as to maximize potential tourism revenues.

The significant decrease in gambling revenue is a signal for Macao to consider enhancing tourists' revisit intention. Potential threats to Macao also include the effects of changes in the destination preferences caused by foreign competitions, activities restricted by corruption crackdown (e.g., gambling), Mainland Chinese who travel farther afield, sluggish economy, and pandemic threats (e.g., H1N1 influenza) Macao (Chan, 2014; Park et al., 2014). Previous studies showed that activity satisfaction significantly affects tourists' revisit intention, satisfied tourists can contribute to destination loyalty during their involvement in a variety of activities, and a 5% increase in customer consumers' satisfaction can increase revenues from 25% to 85% (Alexandris, Kouthouris, & Meligdis, 2006; Gursoy et al., 2003; Jang & Feng, 2007). Nevertheless, limited studies have investigated the relationship between tourists' revisit intention and the impacts of the satisfaction level of the main activities tourists undertake. Thus, based on the threats that Macau's major industry (i.e., gambling) faces, and the importance of the relationship between tourists' revisit intention and customer satisfaction, the main research questions of the present study are: i) What is the satisfaction level of the main activities that tourists undertake when visiting Macao?, and ii) What is the relationship between tourists' satisfaction level for each activity and their revisit intention? To be specific, the objectives of the present study are to identify the satisfaction levels of the main activities that tourists undertake when they visit Macao; and to evaluate the relationship between tourists' satisfaction level for each activity and their revisit intention.

Literature Review

Multi-dimensional motivations and tourist activities

The traditional push and pull theory explains the relationship between the push factors that affect tourists' visitation to a certain destination and how a destination pull tourists to come (Dann, 1977). In early 1908s, Mayo and Jarvis (1981) has already pointed out that motivation is the ultimate driving force that affects tourists' behavior for needs satisfaction. Moreover, motivation is multi-dimensional since tourists hope to experience more than one attribute within a destination (Mayo & Jarvis, 1981; Pyo, Mihalik, & Uysal, 1989). Driven by multi-dimensional motivations, tourists indicate their multi-dimensional behavior when they visit a destination. They stay in hotels, visit attractions, and go shopping; and these activities contribute to the overall tourist experience at a destination (Kozak, 2002). On the other hand, satisfaction level of the activities positively affects tourists' revisit intention of a destination (Huang & Hsu, 2009; Stylos, Vassiliadis, Bellou, & Andronikidis, 2016). In other words, customers who are satisfied with certain activities have a high probability of revisiting the destination; which may bring continuous profits to the tourism industry ((Darnell & Johnson, 2001; Jang & Feng, 2007).

Shopping, sightseeing, and entertainment are the most common activities of tourists during their trips to a certain travel destination (Chi & Qu, 2008; Heung & Cheng, 2000). Of the three activities, shopping is considered an essential tourist activity that shapes the travel experiences of tourists in a destination. For example, souvenir shopping is an integral part of one's shopping experience, and is considered a component of the overall tourist shopping portfolio (Kim et al., 2011; Kong & Chang, 2012). Leisure also plays an important role for families because family members are the common leisure companions throughout the life cycle (Shaw & Dawson, 2001). Kim et al. (2011) explained the "family and vacation seekers" concept, which is aimed at sightseeing/culture exploration when visiting a certain destination; in this case, tourists prefer to stay at friends or relatives' homes rather than in hotels. "Multi-purpose seekers" are those individuals whose main activity is sightseeing/culture-related (Kim et al., 2011). Tourism in Macao relied heavily on gambling in the past decade (Kong & Chang, 2012; Park et al., 2014). Since the mid-2000s, many new casinos have been built in Macao by international casino firms, such as Wynn, Sands, and MGM (Wong & Fong, 2010). Such establishments have attracted an increasing number of tourists to visit Macao. In 2006, Macao became the world's leading gaming destination in terms of gaming revenue; by mid-2008, it had surpassed the combined gambling revenues of Las Vegas and Atlantic City (McCartney, 2008). However, Macao, which was previously perceived as a gambling destination, is currently facing a new set of problems (WOODHOUSE, 2015).

*Previous studies have determined the main activities of tourists when visiting a certain destination. T*ourists' activity satisfaction may also contribute to the overall satisfaction of a certain destination . *Enhancing tourists' revisit intention can also assist Macao to revitalize its tourism industry. Nevertheless, the relationship between activity satisfaction and revisit intention was ignored in previous studies. Therefore,* responding effectively to the increasing competitive environment that entails the satisfaction levels for the main activities undertaken by tourists are first identified, and the relationship between tourist satisfaction and revisit intention is then assessed.

Tourist satisfaction and revisit intention

Identifying the main activities (e.g., shopping and visit attractions) tourists undertake may help destination managers clarify their future development directions; *nonetheless, identifying customers' activities may still fail to contribute to a destination's future development if their demands are not satisfied. Therefore,* customer satisfaction, which plays a vital role in deciding tourism-related products and services is frequently examined. Furthermore, customer satisfaction is an important indicator in evaluating the overall travel

experience of tourists (Gursoy et al., 2003).

Before the 1990s, attribute-level conceptualization is the antecedent of measuring satisfaction (Oliver, 1993). The measurement of customer satisfaction has been gradually replaced by the customer loyalty concept . Tourist satisfaction is also affected by a number of factors (Murphy, Moscardo, Benckendorff, & Pearce, 2011; Siu, Wan, & Dong, 2012; Ung & Vong, 2010). For example, Neal and Gursoy (2008) indicated that tourists' overall satisfaction for travel and tourism services is affected by their satisfaction or dissatisfaction levels at various stages. Law et al. (2004) argued that tourists' overall satisfaction is affected by their satisfaction level for different activities, such as shopping, dining, and watching attractions. In Macao's case, wherein gambling is the selling point, Wong and Li (2015) indicated the moderating effect of gambling between travel experience and tourists' revisit intention. Lam,Chan, Fong, and Lo (2011) proposed that gambling satisfaction would affect tourists' intention to revisit. Heung and Cheng (2000) investigated the shopping experience of international tourists in Hong Kong, and identified four factors that influence their shopping satisfaction, namely, tangible quality, staff service quality, product value, and product reliability. By contrast, Murphy et al. (2011) explained that tourists' shopping satisfaction particularly depends on the shopping enjoyment they experience. Ung and Vong (2010) further indicated that facilities and services at heritage sites, followed by history and culture, heritage attractiveness, and heritage interpretation, are predictors of attraction satisfaction. Fonseca and Rebelo (2010) proved that satisfied customers are more likely to revisit cultural attraction in the future. Therefore, shopping experience significantly affects the shopping values perceived by tourists and their behavioral intentions of a destination (Yüksel, 2007). Despite the idea that the satisfaction level for certain activities can enhance tourists' revisit intention, trip arrangement is also an important factor that affects tourists' revisit intention. Liu, Li, and Yang (2015) showed that trip arrangement can generally affect tourists' future purchase intention. Tourists have different trip arrangements. Thus, individual travelers have their own transportation arrangement, whereas group travelers participate in all-inclusive tours. For example, Brida, Meleddu, and Pulina (2012) discovered that no matter how much tourists spend on accommodation, tourists who travel in groups, by train, or on foot are less likely to revisit cultural attractions.

In summary, customer satisfaction level of different activities has a considerable influence on word-of-mouth publicity (Hui, Wan, & Ho, 2007); and is determined to be positively associated with return visit intention. Repeat purchase, which can be regarded as an extension of satisfaction, is even more important because many travel destinations considerably rely on repeat visitors, which can bring economic benefits to the tourism industry (Darnell & Johnson, 2001; Um, Chon, & Ro, 2006). Previous studies have presented a variety of factors affecting tourist satisfaction when visiting a certain destination. However, the majority of past studies only examined a single objective when tourists visit a certain destination (e.g., gambling or shopping) (Siu et al., 2012; Ung & Vong, 2010). Only a limited number of studies have examined tourist satisfaction in terms of each activity despite the vital role of such satisfaction in attracting tourists' future visits. Therefore, *to gain a comprehensive understanding of tourist preferences and to present a better strategic management of Macao's future development, the current study intends to identify the relationship between tourist's satisfaction level for each activity and their revisit intention. Based on previous literature, the following hypotheses are advocated:*

Hypothesis 1: *Casino satisfaction level is positively related to revisit intention.*
Hypothesis 2: *Shopping satisfaction level is positively connected with revisit intention.*
Hypothesis 3: *Attraction satisfaction is positively connected with revisit intention.*
Hypothesis 4: *Trip arrangement is highly connected with revisit intention.*

Methodology

To develop the questionnaire for this study, first in-depth interviews with Macao's government officials and practitioners, as well as focus group interviews with this region's visitors, were conducted in the early stage before extensive questionnaires were distributed in Macao in 2013. The purposes of the interviews are for the researchers to have an overview of the current situation of Macao's tourism industry; and for industry practitioners to understand the methodology that researchers would like to employ and data they expect to retrieve. Interviews have been conducted with the Macao Government Tourist Office (MGTO), Statistics and Census Service (DSEC), six casino operators, and the Macao Hoteliers and Innkeepers Association (MHIA). An in-depth interview method was employed in this study because of this method's advantages in obtaining extensive information on the interviewees' attitudes and experiences and the possibility of exploring new issues (Boyce & Neale, 2006; Li, Chan, & Lam, 2015). A total of 16 industry practitioners were interviewed. During each interview, the moderator presented the general instructions and encouraged the interviewees to express their feelings, ideas, and thoughts freely. The focus group interviews also facilitated the acquisition of detailed information on a particular topic (i.e., activities undertaken by tourists) (Bryman, 2008). Two groups were interviewed. One group comprised 14 mainland Chinese tourists, who were further divided into two small groups; the other group, comprising 18 Hong Kong tourists, was also divided into two small groups. The information obtained from both industry practitioners and tourists can definitely minimize the personal bias involved in the questionnaire development.

The questionnaire was developed from the existing literature, the Convention and Visitors Bureau, and the findings from the interviews conducted (Carson City Convention and Visitors Bureau, 2009; Hsu & Kang, 2007). Before the actual data collection, a pilot test was conducted in Macao's four major terminals, namely, the border gate, outer harbor, Taipa Harbor, and airport. A total of 66 questionnaires were returned. Thereafter, the questionnaire was finalized after one experienced academic researcher and one industry practitioner made the necessary adjustments. The actual data collection took place in 2013 at the border gate, outer harbor, Taipa Harbor, and airport using random sampling method. A total of 5,853 valid questionnaires were collected for data analysis.

Model selection

Previous studies have applied factor analysis, structural equation model, zero-truncated poisson regression, and other data analysis methods to investigate the relationship between tourist satisfaction levels and revisit intention (Brida et al., 2012; Liu et al., 2015; Yüksel, 2007). However, the data analysis methods applied in previous studies only considered one level. In essence, multi-level models are useful when the individual units and larger units are interrelated; and when they affect the outcome of the same interest (Winkelmann et al., 2005).The advantage of multi-level models lies in a deeper understanding of the interrelationships of individual units and larger units that are often ignored by one level function. Often times individual units refer to Level 1 function whereas larger units refer to Level 2 function. In the present study, Level 1 (i.e., individual units) denotes the satisfaction level of tourists; and each tourist is regarded as an individual. Level 2 (i.e., larger units) signifies the tourists by the degree of recommendation intention. That is, tourists who have the same degree of recommendation intention are grouped together. Level 1 and Level 2 are tested by sequence separately. Level 1 examines the relationship and Level 2 verifies the results of Level 1. Thus, to provide a more comprehensive understanding of the connection between Level 1 and Level 2, as well as to better predict and assure the accuracy of the results, hierarchical ordered probit model was selected as the data analysis method for the present study. In this model, dependent variable(s) and independent variable(s) are in a 5-point frequency scale, wherein 1 and 5 refer to the lowest and highest levels of agreement,

respectively. The dependent variable of the Level 1 equation refers to revisit intention whereas the independent variables refer to the satisfaction level of gambling, attraction, and satisfaction. Level 2 aims to verify the results of Level 1 when tourists are categorized by their recommendation intention to their friends and relatives.

Level 1 equation:

$$Y_{ij} = {}_{0j} + {}_{1j}*GAMB + {}_{1j}*SHOP + {}_{1j}*ATTR + {}_{2j}*TRAR + e_{ij}$$

where Y_{ij} refers to the score on the dependent variable **"Revisit intention"** for an individual observation at level 1;

$_{0j}$ refers to the intercept of the dependent variable "**Recommendation intention**" in group j (level 2);

$_{1j,}$ $_{2j}$ refers to the slope for the relationship in group j (level 2) between the level 1 predictor and the dependent variable; and e_{ij} refers to the random errors of prediction for the level 1 equation.

Level 2 equation:

$${}_{0j} = {}_{00} + \mu_{0j}$$

$${}_{1j} = {}_{10} + \mu_{1j}$$

where $_{00}$ refers to the overall intercept;

u_{0j} refers to the random error component for the deviation of the intercept of a group from the overall intercept;

$_{10}$ refers to the overall regression coefficient; and

u_{1j} refers to the error component for the slope for the level 1 predictor.

Note:
Level 1 predictors:
Activity satisfaction level: *GAMB = GAMBLING; SHOP = SHOPPING; ATTR = ATTRACTION;*
Trip arrangement: *TRAR = Trip arrangement (i.e., individual travel vs. group travel)*

Findings and discussions
Socio-demographic profiles

Table 1 lists the socio-demographic profiles of the respondents in 2013. In terms of gender, the proportion of males to females is equally distributed. Approximately 75 percent of the respondents are between 25 and 54 years old. In terms of education level, 65 percent of the respondents obtained a tertiary education. For marital status, the majority of the respondents (97 percent) are either single (42.2%) or married (54.8%). In terms of the respondents' country of residence, Mainland Chinese and Hong Kong tourists are Macao's main target markets. Mainland Chinese tourists particularly comprise approximately 60 percent, whereas Hong Kong tourists are at approximately 25 percent. The statistical data are consistent with those reported by the Macao Tourism Industry Net (Macau Tourism Industry Net, 2015).

Table 1. Socio-demographic profiles of the respondents

Year 2013	N = 5853	
	Number	Percentage
Gender		
Male	3054	52.2
Female	2798	47.8
Refused to answer	1	0.0

Age		
Below 25	955	16.3
25-39	3296	56.3
40-54	1155	19.7
55 or above	277	4.8
Refused to answer	169	2.9
Education		
Primary education or below	63	1.1
Secondary education	1780	30.4
Tertiary	3786	64.7
Others	23	0.4
Refused to answer	201	3.4
Marriage		
Single	2468	42.2
Married	3208	54.8
Separated/Divorced	28	0.5
Widowed	13	0.2
Refused to answer	135	2.3
Country of residence		
Mainland China	3452	59.0
Hong Kong	1346	23.0
Taiwan	380	6.5
Others	675	11.5

Tourist activities and satisfaction level

Table 2 lists the main activities of tourists when they visited Macao in 2013, and also provides the mean value of these activities. Customer satisfaction levels range from 1 to 5, wherein 1 and 5 as the lowest and highest satisfaction levels, respectively. Tourists are generally satisfied in each activity because the mean score of each is above 3.5 [70 percent degree of satisfaction (5.00×0.70)]. These findings indicate that tourists' top activities in Macao are visiting attractions, shopping, and gambling, with a frequency of 1,738, 638, and 562, respectively. Shopping satisfaction also has the highest mean value (m = 4.11), whereas gambling satisfaction has the lowest mean value (m = 3.92). The mean value of the satisfaction for visiting attraction is 4.00.

Table 2. Main activities of visiting Macao and satisfaction level

Activities of tourists	Activity satisfaction			
	Frequency	Percentage	Mean	Std. Deviation
Attractions	1738	29.69	4.00	0.675
Shopping	638	10.90	4.11	0.573
Gambling	562	9.60	3.92	0.821

Park et al. (2014) determined that the Mainland Chinese showed the highest participation in shopping and entertainment activities. Liu, Choi, and Tak Lee (2008) also proved that tourism shopping has become an important activity for tourists, particularly for the Chinese and Japanese visitors. Therefore, Macao can continue highlighting its shopping malls by exploring its potential because the top activity of tourists in this region is shopping. Macao can also take the following measure to enhance tourists' satisfaction level in visiting attractions in Macao. For example, Macao inherited a rich European heritage, which is manifested in the different aspects of everyday life; thus, Macao has the potential to develop heritage tourism (Ung & Vong, 2010). Macao's architectural heritage, which combines Eastern and Western cultures, can be regarded as a selling point of this region's heritage tourism (Ung & Vong, 2010; Wu, 2002). The mean value of gambling, which is Macao's selling point, is the lowest among the aforementioned three activities. The probable reason for this finding the risk-taking disposition of gamblers, which is often associated with

motivation (e.g., money) (Vong, 2007). Therefore, satisfaction level may not truly reflect activity satisfaction (i.e., gambling) itself; rather, such satisfaction level may relate to the money lost when tourists gambled. Tourists' satisfaction level for gambling is simply connected with the money that tourists win or lose. Thus, converting these activities to a type of experience (e.g., value added service, such as enhanced environment and delicacy) may help the casino industry recover (Chen, Lehto, & Choi, 2009). For example, offering a variety of international delicacies can be regarded as a positive method to divert the money lost by tourists to gambling and, to a certain extent, turn their negative feelings to positive ones. Considering that both overall satisfaction and attribute satisfaction (e.g., attraction facility) have direct and positive effects on destination loyalty and revisit intention (Chi & Qu, 2008), destination marketers or managers should exert effort to enhance customer experience in terms of attraction facility. For example, the concept of "one stop experience" can be introduced to combine the experience in attractions and retail shops.

Relationship between activity satisfaction and revisit intention
Table 3 shows the relationship between activity satisfaction and revisit intention resulting from conducting hierarchical ordered probit logistic analysis. Level 1 deals with the individual level, whereas level 2 certifies the results of level 1. Therefore, the findings of level 2 further proved those of level 1 by categorizing the tourists into certain attributes (i.e., recommendation intention). The findings of Level 1 showed that gambling satisfaction is positively related to tourists' revisit intention, whereas trip arrangement is highly connected with tourists' revisit intention. That is, individual travelers are more likely to revisit a certain destination, whereas tourists who participated in group travel are less likely to revisit a certain destination in the future. By contrast, no relationships are determined among shopping satisfaction, attraction satisfaction, and tourists' revisit intention. However, Yüksel (2007) indicated that shopping satisfaction affects tourists' revisit intention to a destination. Fonseca and Rebelo (2010) also discovered that satisfied cultural attraction customers showed their revisit intention. The findings of Level 2 further proved that tourists who will strongly recommend to their friends indicated a high revisit intention. Therefore, Hypotheses 1 and 4 are accepted, whereas Hypotheses 2 and 3 are rejected. These findings are consistent with those of Wong and Li (2015), that is, customers who are satisfied with products/service are more likely to spread positive word-of-mouth to their friends and relatives.

Table 3. The relationship between activity satisfaction, trip arrangement, and revisit intention

Level 1: Revisit intention	Coef.	Std. error	Z
Gambling satisfaction	0.1666048	0.0851621	1.96*
Shopping satisfaction	-0.0946571	0.1121236	-0.84
Attraction satisfaction	-0.0081623	0.0051381	-1.59
Trip arrangement	-0.3622446	0.1334573	-2.71**
Level 2: Recommendation intention	0.0506125	0.0964268	N.A.

Note: *$p < 0.05$; **$p < 0.01$
Log Likelihood = -440.20223
N.A. = Not applicable

Implications

Theoretical implications

The present study is based on tourists' multi-dimensional motivations to test tourists' revisit intention and satisfaction levels of different types of activities (Huang & Hsu, 2009; Mayo & Jarvis, 1981; Pyo et al., 1989). Rather than exploring the intrinsic and extrinsic motivations that drive consumers' multi-dimensional behavior, the current study identifies the main activities which tourists undertook when visiting Macao to provide implications for this region's future tourism development. Therefore, this study extends the previous studies by a multi-level model (i.e., hierarchical ordered probit model) that examines the relationship between revisit intention and satisfaction level of expression of multi-dimensional motivations (i.e., main activities undertaken by tourists).

Most previous studies evaluated a single tourist activity when tourists visit certain destinations. The present study extends the activities examined by previous studies by evaluating the main activities of tourists when visiting destinations, with the objective of gaining a comprehensive understanding of these activities and tourists' behaviors. Unlike the limited sample size in previous studies, the present study employs a large sample size (i.e., 5,853); tourists from Mainland China, Hong Kong, Taiwan, and several Western countries comprise approximately 90 percent of Macao's inbound tourism market (Macau Tourism Industry Net, 2015). Information on the satisfaction level for the activities tourists undertake can enlighten destination markers regarding future tourism development. This type of satisfaction level is still one of the most persuasive indicators used to evaluate tourists' satisfaction for the entire trip. Previous studies have examined either the overall satisfaction level or the satisfaction level of a single activity when tourists visit a certain destination (Liu et al., 2008; Murphy et al., 2011; Turner & Reisinger, 2001). Chi and Qu (2008) explained that shopping, activities and events, lodging, attractions, and environment are the attribute predictors of tourist satisfaction. The present study extends literature by examining the relationship between tourists' activity satisfaction and revisit intention. The present study also clearly emphasizes that gambling satisfaction is positively related to tourists' revisit intention; and trip arrangement is highly connected with tourists' revisit intention.

Our findings can provide insights in terms of the activities undertaken by tourists when visiting a certain destination. Despite the previous investigation of single activity satisfaction, the present study provides information on tourist satisfaction levels in terms of the main activities tourists undertake when visiting a certain destination. Moreover, the large sample size and the application of hierarchical ordered probit model of this study can provide a comprehensive understanding of a destination's future tourism development.

Managerial implications

In the competitive global environment, destinations often present several challenges as a result of changes in customer preferences, market conditions, and government policy changes, among others. Macao, being faced with such threats as growing foreign competitors, slowing economy, and Mainland Chinese corruption crackdown, Macao has experienced a significant decline in its casino revenue in early 2015 (Chan, 2014; Park et al., 2014; WOODHOUSE, 2015). To attract tourists to revisit the destination and to increase tourism revenue, the current study first identifies tourists' activity satisfaction levels and evaluates the relationship between the activity satisfaction levels and tourists' revisit attention.

The findings showed that tourists are most satisfied with visiting attraction, followed by shopping and gambling. Gambling satisfaction is also positively related to tourists' revisit intention. Trip arrangement is also highly connected with tourists' revisit intention. Based on the aforementioned evidence, industry practitioners can assist Macao's future development in a more effective manner. Enhancing tourist experience can be

considered because gambling satisfaction is a good indicator of tourists' revisit intention. According to Tao, Wu, Cheung, and Tong (2011), young gamblers have a considerable desire to gamble to learn, as well as a strong desire to acquire a novel experience. Thus, converting gambling to a form of experience can be considered. Compared with group travelers, individual travelers are more likely to revisit Macao. Therefore, placing more destination information on the commonly used platforms of tourists can enhance destination exposure and revisit intention in the future because the majority of individual travelers buy travel-related products using online platforms (Wong & Law, 2005). The findings of the present study also further proved that tourists who will strongly recommend to friends and relatives are more likely to revisit Macao again. Therefore, the degree of recommendation intention can also be considered an indicator of tourists' revisit intention.

Conclusions and Future Research

By examining tourists' satisfaction levels for the main activities they undertake when visiting Macao, we determined that tourists are most satisfied with shopping, followed by visiting attractions and gambling. The results also showed that gambling satisfaction is positively related to tourists' revisit intention; and trip arrangement is highly related to their revisit intention. On the one hand, Macao can increase customer satisfaction by enhancing tourists' experience. On the other hand, this region can also target individual travelers through popular social media websites, such as TripAdvisor. Individual travelers commonly use these websites to search for travel-related information because they have a strong intention to revisit compared with group travelers. We further proved that tourists who have a strong intention to recommend the destination to their friends and relatives are more likely to revisit a certain destination in the future.

This study has several limitations. As an exploratory study, the underlying reasons that affect tourists' participation in activities, as well as the intrinsic and extrinsic values affecting customers' changing behaviors, have not been considered. On the other hand, the main activities tourists have undertaken may change over time because of their constantly changing needs. Therefore, future studies can conduct a similar research in a fixed time interval to stay in touch with customers and to enhance tourists' revisit intention. To provide more accurate predictions, information can be retrieved from online platforms, such as TripAdvisor, to provide useful and extensive information related to tourists' activities.

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