



# Understanding perceived casino service difference among casino players

Understanding  
perceived  
difference

753

IpKin Anthony Wong

*College of Tourism, Institute for Tourism Studies,  
Macau, People's Republic of China*

Hoi In Veronica Fong and Matthew Tingchi Liu  
*Department of Management and Marketing, University of Macau,  
Macau, People's Republic of China*

Received 8 June 2011  
Revised 18 September 2011  
19 October 2011  
Accepted 20 November 2011

## Abstract

**Purpose** – This paper aims to investigate customers' perceptions of four service quality aspects – service environment, service delivery, game service, and food service – in the casino setting among Chinese players.

**Design/methodology/approach** – The study examined the proposed model through a 2(gambler type: leisure versus hardcore) × 2(gender: male versus female) multivariate analysis of variance of the four casino service quality aspects.

**Findings** – Based on a sample of leisure and hardcore casino players, the results show significant differences between the two types of patrons on the four casino service dimensions. In addition, significant gender-by-player interaction is revealed.

**Research limitations/implications** – This study sheds new light on the understanding of the direct and moderating roles of gender and type of casino players on service evaluation in the literature. The research findings should be interpreted with caution as the results are derived from a Vegas-like casino in Macau among a mass-market Chinese casino clientele.

**Practical implications** – The findings extend service research by illuminating perceptual differences in different casino service quality dimensions in the Asian leisure milieu. Casino operators should take customers' gender and player type into account and design service offerings that are more attractive to female and leisure consumers, as they represent a large potential casino clientele.

**Originality/value** – The findings extend the customer contact model and further the understanding in regard to the service quality perception in the burgeoning casino gambling industry in the Far East.

**Keywords** Service quality assurance, Casinos, Gambling, Gender, Player type, Chinese people, Customer services quality, China, Consumer behaviour, Leisure activities

**Paper type** Research paper

## Introduction

To date, despite the rapid development of the Asian gambling market, there has been a noticeable imbalance in the attention given to the study of Chinese consumer behaviors in the casino gaming industry in the Far East, particularly in the service research stream. Who would have imagined a few years ago that a former Asian fishing village would now become the world gambling capital, offering a blend of Asian and Las Vegas style casino experiences (Lam and Vong, 2009, Loi and Kim, 2010)? It all began with the opening of the first Vegas-like casino gaming establishment – Sands casino – in Macau, China (Jalal, 2008). However, the success of Macau's gambling industry



remains unclear, as little empirical research has been observed to date in examining Chinese gamblers' perceptions and behaviors in regard to this lucrative high-contact service encounter.

The literature has widely acknowledged that the Chinese, especially Chinese men, are fanatic about gambling (Papineau, 2005; Lam, 2007). The Chinese affinity for gambling may be driven by both intrinsic and extrinsic motivations such as belief in luck and instant financial reward (Ozorio and Fong, 2004; Papineau, 2005). However, the literature has largely ignored the importance of casino service elements, such as the built environment, employee service delivery, game service, and food service, particularly in the context of Asia. Sumptuous yet intimately designed service offerings not only fulfill consumers' pleasure-seeking needs (Hashimoto, 2008), they also entice favorable service quality perceptions. As a consequence, well-managed services have been consistently found as a key strategic proposition that leads to customer loyalty (Bitner, 1992; Hightower *et al.*, 2002; Zeithaml and Parasuraman, 2004; Hyun, 2010) and ultimately positive financial outcomes (Rust and Chung, 2006).

Another gap in the literature appears since gaming studies have largely assumed that the Chinese at-large (non-VIP) mass market is homogeneous (Fong and Ozorio, 2005; Lam, 2005). Hence existing marketing strategies tend to target this group of consumers with a uniform marketing mix and service offerings. This assumption remains unclear; but evidence from the Macau Statistics and Census Service (2009) indicates that while a great number of Chinese visitors flock to casinos, only 7 percent of them reported that their main travel motive was gambling. These statistics may suggest that a great majority of Chinese are not as fanatic about gambling as the literature notes, or that they may be visiting casinos and putting a small bet on the tables or slots, but do not consider themselves to be engaging in hardcore gambling (Wong and Fong, 2010). Hence the Chinese affinity for gambling may be contingent to bet size, as Cotte (1997) contends. A study on this dichotomy – leisure versus hardcore players – could shed new light on the understanding of gambling behaviors and preferences of casino offerings.

In addition, the extant literature has revealed gender differences in regard to gambling interest and behaviors (Lai, 2006; Tang *et al.*, 2007). Much of the attention has been focused on male gamblers because they are more willing to take risk and are more likely to develop pathological gambling habits (Powell and Ansic, 1997; Fong and Ozorio, 2005). However, no research to date has studied gender differences on casino services. Elucidating the role of gender on service perceptions, either as a direct or moderating effect, not only could aid in clarifying the prevalent stigmatized view of a male-dominated Chinese gaming social phenomenon (Chu, 2010), but could also help casino operators to better craft their service propositions and justify their marketing efforts more efficiently.

The objective of this article is to bridge the chasms in the literature by examining the roles of gambler type and gender in casino service perceptions in the mass (non-VIP) casino gaming market. The results offer scholars and practitioners empirical evidence on perceptual differences between leisure and hardcore gamblers among Chinese players. The direct and moderating effects of gender are also explored. The results are important to both scholars and service operators as they address several important but unanswered issues in gaming studies. This article begins with a literature review regarding casino services and then proceeds with research methods

---

and results. Managerial and theoretical implications are presented in light of the findings.

## Literature review

### *The research context*

Casino gambling has been the primary driving force of the economy of Macau, the world gambling capital (Loi and Kim, 2010). Since its liberalization of the gaming industry in 2002 and the development of contemporary integrated themed casinos, Macau's gaming revenue has surged past that of its American rival, Las Vegas. Wong (2011) predicts that the gaming revenue of Macau will reach \$US57bn – three times that of Las Vegas – by 2015.

Early research suggests that this phenomenal growth can be primarily attributed to VIP hardcore gamblers, as they represent about 70 percent of the total gaming revenue generated (Gu, 2006; Zeng and Forrest, 2009). In fact, much research to date portrays typical casino players in Macau as hardcore with a strong affinity to gambling. They are primarily Chinese, willing to spend much time and money on gambling, and they particularly relish table poker games such as baccarat (Lam, 2007; Fong and Ozorio, 2005). VIP and non-VIP hardcore players are fairly distinct groups in a number of ways. Zeng and Forrest (2009) explore the profile of Chinese VIP players and suggest that a typical player travels on a junket, is often involved in crime activity to raise money, loses about \$US120,800 per visit, and works as a high-level manager, government official, or firm owner. They also receive the highest level of service, in a private room at the VIP floor, and are served with complimentary room, transportation, and food and beverages. Their non-VIP counterparts, on the other hand, are mostly white- or blue-collar workers who receive relatively few, if any, complimentary services from casinos. They play on the non-VIP gaming floor with a large crowd of other gamblers. Their bet size per hand is usually at or a few times more than the minimum betting limit – for example Macau Pataca (MOP) \$300 or \$US38 (cf. Lam, 2007).

Despite the fact that hardcore gamblers are the major cash cow in the world gambling capital, recent studies reveal that the concentration of themed casino resorts (e.g. the Venetian, the City of Dreams, the Galaxy, and the Wynn) have attracted a large group of leisure consumers who seek an experience that goes beyond hardcore gambling (Wong and Rosenbaum, 2010). Although casino gambling is still an important itinerary on their trip, they are also looking for a variety of sightseeing, entertainment, shopping, and dining options (Wan, 2011). In fact, this group of players view casino gambling as an entertainment alternative and their primary motive is to seek venues for leisure and socialization (Wong and Rosenbaum, 2010; Lam and Vong, 2009).

### *Service management*

Service management has received growing attention because well-managed service operations have been consistently found to be key elements in customer satisfaction and behavior intentions (Zeithaml and Parasuraman, 2004; Ramanathan and Ramanathan, 2011). The literature has also acknowledged the financial impacts from various service propositions (Rust and Chung, 2006). Among major service research streams, service quality is often posed as one of the most important aspects in customers' service evaluation criteria (Cronin and Taylor, 1994; Chen and Hu, 2010).

Parasuraman *et al.* (1988) defined SERVQUAL as a framework that measures the gap between customer service perception and expectation. Rust and Oliver (1994) extended the traditional view of service quality and propose quality of service to be conceptualized in three components:

- (1) service product;
- (2) service delivery; and
- (3) service environment.

Researchers from this stream of work believe that this conceptualization of service quality is more comprehensive, and is therefore better able to explain providers' service performance (Brady and Cronin, 2001). Wong and Fong (2011) adopt Rust and Oliver's (1994) three-component framework and extend it to include an additional dimension of food service in the context of casino service.

According to Rust and Oliver (1994), service product refers to the core product or service, such as table and slot games in casinos, offered by a service provider. This dimension is the technical aspect of service quality because it represents the tangible features that are delivered to the customers (McCain *et al.*, 2005, Wong and Fong, 2011). Service delivery, on the other hand, is the functional aspect of customers' service quality perception (McCain *et al.*, 2005; Gronroos, 1984; Wong and Fong, 2011). In the context of the casino, for example, front-line serving staff act as an interface between the customer and the casino operator. Intimate customer-employee interactions, personal attention, and professional attitude are elements that could enhance quality perceptions during the service delivery process (Brady and Cronin, 2001).

Service environment refers to the physical setting in which the service takes place. Bitner (1992) coined the term "servicescape" to describe the tangible environment attributes, such as the atmosphere, facilities, and interior décor, used as cues in customers' service quality evaluation (Wall and Berry, 2007). In the casino setting, the physical environment has been acknowledged as a critical service quality component in both the overall casino service and customer satisfaction assessments (Wong and Fong, 2011). It has also been regarded as a strategic asset that differentiates casino brands and attracts customers (Wong and Rosenbaum, 2010, Johnson *et al.*, 2004, Lucas, 2003, Jang *et al.*, 2011). While Rust and Oliver's (1994) conceptual model covers three major aspects of service quality in the service encounter, integrated hospitality providers such as casinos and hotels are increasingly demanding a better understanding of their food services (Stutz, 2008; Carr, 1988; Ramanathan and Ramanathan, 2011). Food quality, variety, and price of the catering services are some of the major attributes discussed in the literature (Watters *et al.*, 2003; Capra *et al.*, 2005; Ramdeen *et al.*, 2007). Wong and Fong (2011) reveal that food service is a major dimension of casino service evaluation because gamblers demand food and beverages throughout the entire service encounter. Tanford and Lucas (2010) also find that this service component plays a major role in attracting casino customers. Next, we discuss the roles of casino players and gender in customer service quality perceptions.

#### *Hardcore and leisure players*

Most gaming research has documented the obsession of the Chinese with hardcore gambling (Fong and Ozorio, 2005; Papineau, 2005; Young *et al.*, 2008). These studies typically portray Chinese gamblers as being intrigued by risk-taking and motivated by

---

the prospect of instant financial rewards. Such hardcore players are likely to put large stakes on each bet as they are motivated by both economic and symbolic needs (Cotte, 1997; Fisher, 1993). As a result, hardcore gamblers are typified by their high involvement with table or slot games, tending to bet a large sum of money on each hand (e.g. a minimum of \$US25) and to stay at casinos for an extensive period of time (Lam, 2005, 2007; Cotte, 1997; MacDonald, 1996). Because these players generally wager large amounts of money, they usually receive complimentary accommodation and catering services to encourage them to continue to play.

Although monetary and symbolic motives are key drivers of gambling behaviors for the hardcore casino patrons, prior literature is keen to acknowledge the growth of leisure players who focus on the hedonic appeals of gambling such as pleasure, diversion, and play (Cowley, 2008; Titz *et al.*, 2002; Cotte, 1997). This type of player is typified by their low involvement in casino games; they tend to place small stakes on each bet and show more interest in non-gaming entertainment offerings (Cotte, 1997). For example, most Las Vegas casino players are leisure-seeking visitors who only spend a small amount of their travel budget on gaming. Rather, these visitors are more likely to enjoy non-gaming entertainment offerings (e.g. live shows and shopping; *Financial & Insurance Meetings*, 2008, *Corporate Meetings & Incentives*, 2008, Las Vegas Convention & Visitors Authority, 2010).

#### *Casino players and perceived service quality*

The customer contact model (CCM) proposes that different levels of customer contact affect customers' service perceptions (Kellogg and Chase, 1995; Buttle, 1993). Ganesam-Lim *et al.* (2008) revealed that customers who engage in a high-level contact service encounter are more likely to perceive the service quality of the provider more favorably than those who engage in a low-level contact service encounter. This phenomenon may be attributed to the fact that high-level contact service encounters allow a higher level of involvement than do low-level contact service encounters (Ganesan-Lim *et al.*, 2008). In fact, the work of Mersha (1990) suggests that the CCM model should also consider differences between passive and active customers in service research. For example, highly involved customers are likely to engage in extensive interactions with the service employees, the service environment, and other service offerings.

Research from the involvement literature suggests that involved customers perceive higher importance and possess more knowledge of the service or product they receive (Zaichkowsky, 1994; O'Cass, 2004). O'Cass (2004) explained that such knowledge can come from interactions with the service providers and previous consumption experience. Less-involved consumers are less likely than highly involved consumers to make a positive evaluation of products or services (Oliver and Bearden, 1983). Recent research in the tourism and hospitality context reveals evidence of the relationship between involvement and service quality and satisfaction. For example, Hume and Mort (2008) found a direct and positive relationship between involvement and service quality in a performance arts setting. Kyle *et al.* (2010) presented evidence that high-involvement customers perceive better service quality of ski resorts than low-involvement customers do. Kim (2008) reported that involvement, both cognitive and affective, is a significant predictor of travel service satisfaction.

In the context of casino gambling, given that hardcore players spend extensive amounts of money and time on games and other supplementary services in casinos,

they should be more knowledgeable of and be more involved with the casino service offerings (LaPlante *et al.*, 2011) such as the serving staff, the service environment, the casino games, and the catering service. In addition, these customers should also be more likely to perceive that they receive fair casino services because they are familiar with the services. Accordingly, since perceived fairness is a strong predictor of service quality (Snipes *et al.*, 2006, Namkung *et al.*, 2009), we believe that these customers are likely to perceive service quality more favorably, among the aforementioned casino service offerings, than would leisure players.

*H1(a)-(d).* Perceptions of (a) game service, (b) service environment, (c) employee service, and (d) food service will be more positive for hardcore players than for leisure players.

#### *Gender and perceived service quality*

The literature has extensive coverage on gender difference in consumer decisions and service evaluations (Heung *et al.*, 2006; Mittal and Kamakura, 2001; Saad and Gill, 2009). Prior studies show that female customers give more favorable service performance ratings than do male customers (Henderson, 1984). Kwun (2011) also finds that the effects of service quality are only significant for female customers. Scholars reason that this situation may be attributed to the fact that females are more keen on socialization, and are more willing to interact and share emotions with others (e.g. front-line employees; see Brody and Hall, 1993; Gilligan, 1982; Mattila *et al.*, 2003). Females also process better decoding ability and tend to rely heavily on physical cues from the environment (Laroche *et al.*, 2000). In addition, female consumers are more likely to be influenced by rational cues, while male consumers are more inclined to base their judgment on service efficiency and outcomes (Dittmar *et al.*, 2004; Iacobucci and Ostrom, 1993). On the other hand, men perceive personal service to be a less important criterion of service selection than do women (McCleary and Weaver, 1994). Men also place less emphasis on assurance than women (Sebastianelli *et al.*, 2008).

Recent research, however, finds little evidence to support gender difference in regard to service evaluation. For example, Ganesan-Lim *et al.* (2008) found no gender discrepancy in customers' train service quality perceptions. The work of Snipes *et al.* (2006) also revealed that men and women are similar in university service perceptions. On the other hand, there has been growing evidence to suggest that customers' gender moderates their service perceptions (Ganesan-Lim *et al.*, 2008; Huber, 1989). However, the gender moderating effect is inconsistent (Mittal and Kamakura, 2001).

The literature has also shown that crowding causes stress and tension, which leads to negative evaluation of service quality and hence diminished customer satisfaction (Whiting, 2009; Machleit *et al.*, 2000, Li *et al.*, 2009). In the context of gambling, because casino properties are generally dominated by men (Chu, 2010), it is reasonable to believe that female customers may not feel comfortable with their male counterparts in crowded conditions – for example, being in a crowd of smokers screaming for their bets (Lam, 2007). In addition, since females rely heavily on tangible cues from the physical environment and enjoy social interactions (Laroche *et al.*, 2000, Mattila *et al.*, 2003), it follows that they likely would feel more dissatisfied than their male counterparts with the casino services (e.g. table games, the service environment, and the serving staff) in Asian casinos that are often overcrowded, particularly popular venues such as the Sands, the Venetian, and the Wynn. In fact, Lam (2007) reported

---

that male players may shout at female players while playing poker games. The findings are in line with prior literature showing that women often feel insecure and inhibited in public places (Shaw, 1994). Accordingly, female players are less likely to develop positive perceptions of casino services.

*H2(a)-(d).* Perceptions of (a) game service, (b) service environment, (c) employee service, and (d) food service will be more positive for male players than for female players.

In addition, we believe that the effect of player type on perception of casino services is contingent on customers' gender. Although female players may not feel comfortable with the casino services on some occasions, male leisure players are also likely to perceive services of the casino negatively during such situations. According to the involvement theory as mentioned above, leisure players are not as knowledgeable and involved as their hardcore counterparts (cf. Cotte, 1997); hence, they should be less likely to evaluate the casino service favorably than do hardcore players.

The work of Snipes *et al.* (2006) suggests that perceived fairness is the key in service assessment (cf. Namkung *et al.*, 2009). Because casino gambling is primarily dominated by male hardcore players while leisure players often seek gambling as a learning experience (Cotte, 1997; Fong and Ozorio, 2005; Chiu and Storm, 2010), it is fairly plausible that the leisure players may not feel they are being treated fairly; hence their service evaluations would suffer. In addition, Cotte (1997) finds that casino players perceive joy and excitement when they understand how to play table and slot games. Prior research also reveals that emotion and excitement play a positive role in customer evaluation (Bagozzi *et al.*, 1999; Westbrook and Oliver, 1991; Wakefield and Blodgett, 1999; Jang *et al.*, 2011). As a consequence, leisure players who are still learning how to play these games are less likely than the hardcore players to evaluate the casino services positively.

Yet, we believe there is a difference between male and female hardcore players in their service evaluation. A recent study conducted by Chiu and Storm (2010) reported that men are not only more likely to be problem gamblers, but they are also more involved in casino gambling than women even when their gambling attitudes, impulsive gambling behaviors, and other factors are controlled for. Because involved customers are more likely to make favorable service ratings than their less-involved counterparts (Ganesan-Lim *et al.*, 2008, O'Cass, 2000), it follows that male hardcore players would evaluate the casino service more favorably than female hardcore players due to their high level of service engagement. Furthermore, because women base their judgment heavily on tangible cues, it follows that female hardcore players would perceive the casino services less positively than male hardcore players due to excess smoking, shouting, and male dominance (Lam, 2007). They may also be concerned about violence and insecurity in such an environment (Shaw, 1994). On the other hand, the interviews conducted by Cotte (1997) suggest that female players are more satisfied with casinos that are clean and that have more female customers, more friendly people, and more space for gambling. Accordingly, we pose the following hypotheses:

*H3(a)-(d).* While perceptions of (a) game service, (b) service environment, (c) employee service, and (d) food service will vary across gender and player type, they will be more positive for male hardcore players than for female and leisure players.

## Methods

### *Field interview*

We conducted a series of 30 in-depth interviews with players at a major casino in Macau prior to the survey conducted in the present study. Based on the literature (e.g. Cotte, 1997, Lam, 2007, Lam, 2005) and some initial observations as Cotte suggests, two heuristics were used to identify the type of players:

- (1) the bet size; and
- (2) whether they would hover around or concentrate on a particular game or table.

The informants were approached by one of the authors and an experienced casino dealer within the casino property. The bulk of the interview questions concerned informants' gambling motivation, their service perceptions of the casino, and why they were satisfied/dissatisfied with the casino. We also asked whether a minimum bet limit of MOP \$300 was reasonable for the informants, as it was set by the casino under study as well as commonly reported in the literature (Lam, 2007; Loi and Kim, 2010). We then transcribed the data and analyzed the content to review meaningful patterns, to assist us in understanding the behaviors of leisure and hardcore players.

Results of the interviews suggested leisure gamblers were likely to place a small bet on tables or slots. They enjoyed the casino and gaming experience, but complained that a minimum betting limit excluded them from some of the tables. For example, many informants noted that they came to the casino "to sightsee", "to try [their] luck" (male, mid-30s), and "to have fun" (male, 50s). A number of informants also revealed that they came to the casino for leisure and were not interested in hardcore gambling: "I am here for leisure, and not to gamble for a lot of money. The three hundred dollar minimum bet limit is too high which discourages me to play these games" (female, 30s). Another informant added: "Three hundred dollars is too expensive. I would rather use the money for fine dining" (male, late 30s). On the other hand, hardcore gamblers were less critical of the physical and intangible service offerings. They were highly involved in casino gambling, focused only on a few games (e.g. baccarat), and were more willing to place large bets on the table. For example, a hardcore gambler noted that "I always wager in this area [tables with a minimum bet of MOP \$300 or \$500] because it is quite comfortable here, so that I can concentrate more on the games" (male, late 60s). Another hardcore player mentioned that "I play a lot here [at the casino]. I feel bored when I wager a small bet, so I always wager at least a few hundred dollars [MOP] per hand. I feel particularly excited doubling the bet after a win. This is the joy of gambling" (male, mid-40s). The findings of the qualitative study are consistent with prior research (Lam, 2007; Cotte, 1997). For example, Lam (2005) contends that "casino operators may also want to consider offering some table games with lower minimum bets in order to attract leisure gamblers who are just looking for some fun and excitement" (p. 71).

### *Survey sample and procedure*

Next, we collected survey data at a newly built Vegas-style casino in Macau by means of person-administered face-to-face interviews. The questionnaire was pilot-tested and was revised as appropriate. The population of interest was Chinese casino players, as the gambling market in Macau targets primarily Chinese consumers. The final questionnaire was available in Chinese and was administered by well-trained interviewers at the exit of the non-VIP floor of the participating casino. The



interviewers intercepted the respondents and raised two filter questions to ensure the respondents were Chinese and had engaged in gambling in the casino. A total of 300 surveys were administered, and 238 non-VIP Chinese customers agreed to participate in the survey, which corresponded to a response rate of about 79 percent.

*Measures*

Items presented on the questionnaire contained several scales of interest, and were developed based upon prior research work in the field. In particular, we used the 12-item casino service (CASERV) scale developed by Wong and Fong (2011) to measure four aspects of casino services: service environment, employee service delivery, game service, and food service. The scale was created based on Rust and Oliver’s (1994) three-component service quality framework and was rigorously tested and validated in a number of casino properties. These multi-item measures were posed in a five-point Likert-type scale format from “strongly disagree” (1) to “strongly agree” (5). In addition, based on the in-depth interview described above, we used a single-item question – “Do you think the MOP \$300 minimum bet limit[1] discourages you from table games?” (1 = not at all and 5 = definitely) – as a surrogate for gambler type, and another question – “How satisfied are you with the casino services?” (1 = not satisfied and 5 = satisfied) – to assess customers’ overall satisfaction. We examined the validity of the four-dimension measure of the CASERV scale and performed confirmatory factor analysis using LISREL 8.8. The results, as Table I shows, indicate adequate validity and reliability with average variance extracted greater than or equal to the 0.50 threshold, both Cronbach’s  $\alpha$  and composite reliability greater than or equal to 0.70, and model-fit statistics all meeting the recommended values (comparative fit index (CFI) = 0.97, goodness of fit (GFI) = 0.93, root mean square error of approximation (RMSEA) = 0.07, and standardized root mean square residual (SRMR) = 0.06).

The results presented in Table I also suggest that the distributions of the four casino service scales are approximately symmetric, with skewness and kurtosis values below 1.00 (Bulmer, 1979). We then tested the normality of the inferred population of interest by the  $z$ -scores of the skewness (i.e.  $skewness/SE_{skewness}$ ) and kurtosis (i.e.  $kurtosis/SE_{kurtosis}$ ) of the four service dimensions based on the procedure suggested by Cramer (1997). The findings reveal that the scores of  $z_{skewness}$  and  $z_{kurtosis}$  are below the upper threshold ( $z = 3.29, p < 0.001$ ). With a large sample size (i.e.  $n > 200$ ), the results suggest that the distribution of the inferred population does not deviate significantly from normality (Field, 2005). Furthermore, we diagnosed

	Mean	SD	Cronbach’s $\alpha$	Composite reliability	AVE	Skewness	Kurtosis
Game service	3.53	0.73	0.70	0.73	0.50	-0.21	0.43
Service environment	3.80	0.65	0.72	0.74	0.51	-0.28	0.68
Employee service delivery	3.38	0.78	0.89	0.88	0.73	0.09	0.15
Food service	3.18	0.78	0.78	0.79	0.56	-0.57	0.07

**Notes:** AVE, average variance extracted. Fit statistics:  $\chi^2_{(48)} = 89.37, CFI = 0.97, GFI = 0.93, RMSEA = 0.07, SRMR = 0.06$

**Table I.**  
Scale validity, reliability,  
and distribution  
measures

multicollinearity using the variance inflation factor ( $VIF = 1.02$ ). The result ensures that multicollinearity is not a limitation in the current study.

**Findings**

In order to identify different segments of mass gamblers, a K-means cluster analysis was performed. As discussed above, we used the bet limit as a surrogate to classify the two types of non-VIP casino players. This criterion is appropriate because it is a major attribute that differentiates hardcore from leisure gamblers, as both the literature (Cotte, 1997) and our aforementioned interviews suggest. The results of the cluster analysis revealed that casino patrons could be partitioned into two groups:

- (1) leisure gamblers ( $n = 145$ ); and
- (2) hardcore gamblers ( $n = 93$ ).

The cross-tabulation presented in Table II shows a significant association between player type and gender in that more male respondents were classified as hardcore players than female respondents, whereas the opposite was observed for leisure players ( $\chi^2 = 4.64_{(1)}, p < 0.05$ ).

To address the research questions, we examined the proposed model through a 2(gambler type: leisure versus hardcore)  $\times$  2(gender : male versus female) multivariate analysis of variance (MANOVA). The gender main effect was not significant. However, significant difference was found among groups in regard to the player type main effect: Wilk's  $\lambda = 0.87, F_{(5,189)} = 5.40, p < 0.001; \eta^2 = 9.13$  indicated a medium effect size. In addition, the interaction between the two independent measures was marginally significant despite a smaller effect size:  $\lambda = .94, F_{(5,189)} = 2.18, p < 0.10$ .

To gain more insight, a series of two-way analyses of variances (i.e. full-factorial analysis of variance) and independent sample t-tests on each factor were administrated as *post hoc* tests (see Tables III and IV). The results reveal that, in general, respondents rated casino services and satisfaction slightly above neutral. They were most satisfied with the built environment ( $M = 3.80$ ) but least satisfied with the catering service ( $M = 3.18$ ). In addition, leisure gamblers scored significantly lower on game service ( $M_{leisure} = 3.46$  versus  $M_{hardcore} = 3.65, t_{(236)} = 1.94, p < 0.10$ ), employee service delivery ( $M_{leisure} = 3.24$  versus  $M_{hardcore} = 3.60, t_{(236)} = 3.55, p < 0.001$ ), and food service ( $M_{leisure} = 2.97$  versus  $M_{hardcore} = 3.49, t_{(195)} = 4.80, p < 0.001$ ) than their hardcore counterparts. As a result, leisure players were less gratified with the overall casino service than hardcore players ( $M_{leisure} = 3.45$  versus  $M_{hardcore} = 3.66, t_{(236)} = 2.05, p < 0.05$ ). In regard to the gender effect, male and female players, *ceteris paribus*, showed no clear distinction in regard to their perceptions of the service environment, game service, and food service, except that

	<i>n</i>	Male Percentage	<i>n</i>	Female Percentage
Leisure player	65	54.2	80	67.8
Hardcore player	55	45.8	38	32.2

**Note:**  $\chi^2 = 4.64_{(1)}, p < 0.05$

**Table II.**  
Cross-tabulation of  
gender and player type

	Leisure player	Hardcore player	t-value (player)	Male	Female	t-value (gender)
Game service	3.46	3.65	1.94*	3.57	3.49	0.88
Service environment	3.77	3.83	0.68	3.84	3.75	1.17
Employee service delivery	3.24	3.60	3.55***	3.47	3.30	1.67*
Food service	2.97	3.49	4.80***	3.20	3.16	0.39
Customer satisfaction	3.45	3.66	2.05**	3.62	3.44	1.78*

**Notes:** The sample size for the two player groups are leisure player  $n = 145$  and hardcore player  $n = 93$ ; the sample size for the two gender groups are male  $n = 120$  and female  $n = 118$ . \* $p < 0.10$ ; \*\* $p < 0.05$ ; \*\*\* $p < 0.001$

**Table III.**  
Results of one-way analysis of variance

	Male leisure player	Female leisure player	Male hardcore player	Female hardcore player	F (player × gender)
Game service	3.56	3.38	3.59	3.72	2.75*
Service environment	3.75	3.79	3.95	3.66	3.53*
Employee service delivery	3.29	3.20	3.67	3.50	0.17
Food service	2.97	2.97	3.49	3.49	0.00
Customer satisfaction	3.45	3.45	3.82	3.42	3.90*

**Notes:** The sample size for the four groups are: male leisure,  $n = 65$ ; female leisure,  $n = 80$ ; male hardcore,  $n = 55$ ; female hardcore,  $n = 38$ . \* $p < 0.10$

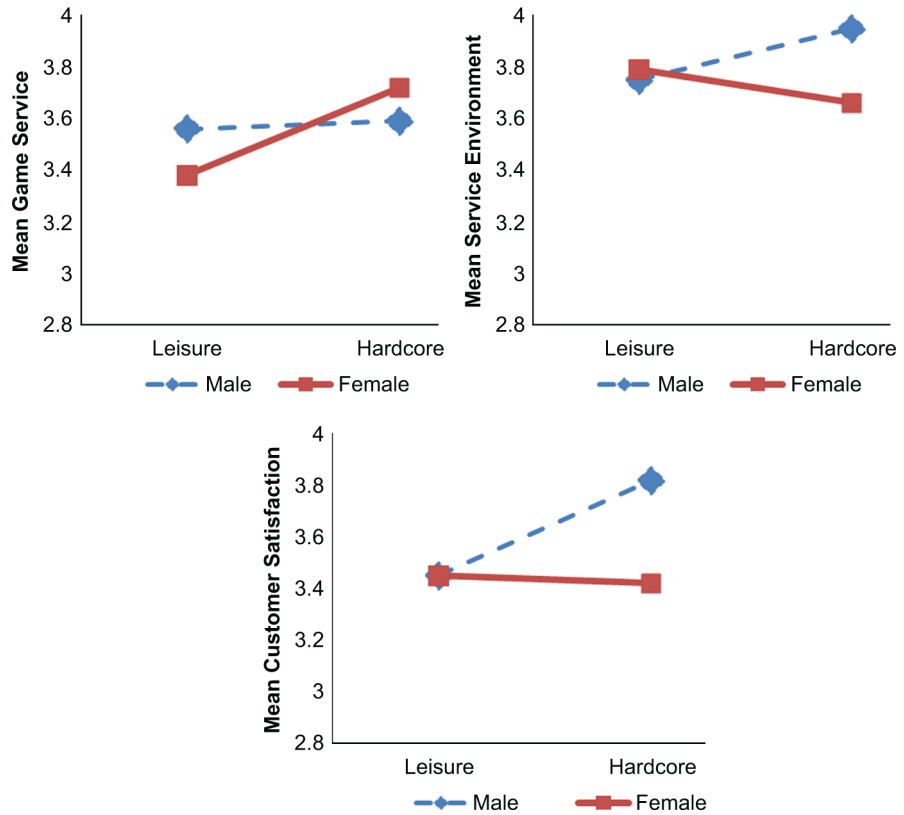
**Table IV.**  
Results of full-factorial analysis of variance

male players were marginally more satisfied with employees' service delivery ( $M_{\text{male}} = 3.47$  versus  $M_{\text{female}} = 3.30$ ,  $t_{(236)} = 1.67$ ,  $p < 0.10$ ) and the overall casino service than female players ( $M_{\text{male}} = 3.62$  versus  $M_{\text{female}} = 3.44$ ,  $t_{(236)} = 1.80$ ,  $p < 0.10$ ).

Although gender does not seem to play a major role in customer service perceptions, the results indicate significant moderating effect of the player-by-gender interaction term on game service ( $F_{(3,234)} = 2.75$ ,  $p < 0.10$ ), service environment ( $F_{(3,234)} = 3.53$ ,  $p < 0.10$ ), and customer satisfaction ( $F_{(3,234)} = 3.90$ ,  $p < 0.10$ ), as Figure 1 shows. For example, while males perceived game service similarly among both types of players, female leisure players were significantly less satisfied with the games provided by the casino than their hardcore counterparts ( $M_{\text{female leisure}} = 3.38$  versus  $M_{\text{female hardcore}} = 3.73$ ,  $t_{(116)} = 2.63$ ,  $p < 0.01$ ). In regard to both service environment perception ( $M_{\text{male hardcore}} = 3.95$  versus  $M_{\text{female hardcore}} = 3.66$ ,  $t_{(91)} = 2.06$ ,  $p < 0.05$ ) and customer satisfaction ( $M_{\text{male hardcore}} = 3.82$  versus  $M_{\text{female hardcore}} = 3.42$ ,  $t_{(91)} = 2.55$ ,  $p < 0.05$ ), male hardcore players were significantly more gratified than their female hardcore counterparts.

## Discussion

The principal objective of this article is to explore the roles of casino player type and gender on casino service quality perceptions. The empirical evidence collated in the current study reveals that men and women are fairly similar in their service



**Figure 1.**  
Effects of player type and gender on the dependent variables

evaluations. On the other hand, hardcore players generally perceive higher service quality provided by casinos, and therefore, they are more satisfied with the overall services than leisure players. The result is encouraging because hardcore players are willing to spend more, and are therefore more desirable customers, as the literature suggests (Baloglu, 2002, Zeng and Forrest, 2009). However, this premise is only partially correct, as the findings are contingent on the player-by-gender interaction effect. For example, one may mistakenly conclude that hardcore players are more satisfied with the game services, but this is only true for the female patrons. Equally, one may falsely believe that gamblers evaluate casino service environment similarly, but this only holds true for leisure players. In fact, male hardcore players are significantly more gratified about this service dimension than their female hardcore counterparts.

*Theoretical implications*

Although gaming studies are beginning to explore casino service quality in the international context (McCain *et al.*, 2005, Suh and Erdem, 2009), there has been little research effort to understand the underlying factors in service evaluation. The current

---

research addresses this void in the literature by examining the extent to which customers' service quality perceptions are dependent on the player type and gender. In doing so, this study sheds new light on the understanding of the direct and moderating roles of these two factors on service evaluation in the literature.

Past research on gaming behaviors has consistently suggested Chinese are, by and large, fanatic about hardcore gambling, especially Chinese men (Fong and Ozorio, 2005, Zeng and Forrest, 2009). The current research challenges this prevalent view by identifying leisure and hardcore players in the mass (non-VIP) market and clarifies the gender bias with gambling in regard to casino service evaluation. We believe that as more Vegas-style casinos are established in the Asian market, casino patrons are empowered to switch to providers that offer the "right" service. Indeed, our results reveal that players do perceive casino services as important to their gaming experience and evaluate service quality defined by four criteria: slot and table games, employee service delivery, the built environment, and catering services. However, their service quality evaluation of these service components is contingent on the extent to which they would engage in hardcore or leisure gambling. The gender difference, which is only pronounced among hardcore players, reveals an important but largely ignored moderating role of gender and customer type in gaming studies. Hence, this study contributes to the literature by enriching the understanding of casino services and the factors leading to differences in service evaluation.

The finding also extends service research by illuminating perceptual differences in different service quality dimensions in the Asian leisure milieu. For example, the service literature acknowledges that customers perceive higher service quality in high-contact settings (Ganesan-Lim *et al.*, 2008). Our findings extend this stream of work and reveal that service quality perceptions are contingent on customer type. In particular, we find that hardcore casino players perceive the game service, employee service delivery, and food service as significantly better in the high-contact casino gambling context, which may be attributed to their high level of involvement. As a result, they are also more satisfied with the casino than the leisure players. Hence, the findings of this study provide insights into differences of quality perceptions, as service quality evaluations do vary from one segment of the population to another.

Another contribution of this study is to provide insight into the differences in customer satisfaction. Prior research has consistently acknowledged the role of service quality on satisfaction. Our findings reveal that gender and customer type also play a role in affecting the level of customer satisfaction. While some studies suggest that females are more likely to be satisfied with the service provided (Henderson, 1984), other research is unable to reveal any gender difference. This study, however, reveals that male customers, particularly hardcore gaming patrons, are significantly more satisfied in the context of the casino setting. The results may imply that service and satisfaction studies should take customer segment, gender, and the service context into consideration. Overall, findings of this study provide a timely update to the hospitality literature and extend the theoretical understanding of casino gambling, service evaluation, and customer satisfaction.

#### *Managerial implications*

Successful casino operations can be a lucrative business. However, as competition among Asian locales intensifies, it is perhaps time to better understand gaming

behaviors and the needs of leisure consumers. The current study investigates the differences between two groups of Chinese gamblers in four core casino service dimensions. The results indicate that the gambling capital's casino services are generally acceptable to this crowd of Chinese at-large customers. However, our concern is raised by the fact that none of the service quality mean scores reached 4 or above on a scale of 1 to 4.

Although the casino under study has a renowned international reputation, Vegas-like service offerings, and well-maintained operational excellence, it has been overwhelmed by the huge influx of Chinese visitors, as one manager indicated. Long waiting queues, crowded tables, and unhandled customer requests (Devoss, 2008, Osnos, 2008) are some of the unintended consequences of popular casino venues like the Wynn, the StarWorld, the Sands, and the Venetian. This is alarming, as pleasure-seeking gamblers, such as the leisure players, are looking to various dimensions of service quality to make their purchase decisions. This group of consumers is large in number and may represent 93 percent of the visitors to Macau (Macau Statistics and Census Service, 2009). Failure to turn these leisure customers into loyal patrons could be fatal, especially since the revenue generated by the high rollers may decline under unstable global financial conditions (Online-Casinos.com, 2009, Gellatly, 2008).

Our findings suggest that female and leisure casino players are less satisfied with the casino than male hardcore players in respect to a combination of the four service offerings (i.e. game service, service environment, employee service, and food service). Hence, casino operators should take customers' gender and player type into account and design service offerings that are more attractive to female and leisure consumers, as they represent a large potential casino clientele. These offerings may include gaming areas exclusively for women patrons. Female-only service settings have been quite popular among spas and gyms (Rosenbaum, 2008), for example, where women can more comfortably share their emotions and interact with the service providers and other customers without being intimidated by men, since they use public spaces fairly differently (Shaw, 1994). In addition, savvy managers should also provide a better learning atmosphere for leisure players. When these customers understand the nature of the games, they may not only perceive the service more favorably and enjoy the games more, but they are more likely to turn into loyal players.

Because both the venues' setting and employee service quality are well-cited as antecedents to customer satisfaction and future behavioral consequences, it is prudent to embrace both tangible and intangible service offerings that meet customers' expectations. Results for the service environment dimension suggest that Chinese customers are generally satisfied with the venue as an ambient oasis, in contrast with the traditional Chinese casinos that are known for their cramped atmosphere. Future development and concentration of Vegas-like casinos will be paramount in luring more Chinese visitors to these extravagant gaming encounters.

This phenomenon is particularly salient among leisure players. Because these gamblers are more likely to enjoy a wider variety of gaming and casino experiences, such as sightseeing casinos and trying out different table and slot games for novelty needs (Cotte, 1997; Wong and Rosenbaum, 2010), they are likely to demand more from the front-line staff while also being more likely to encounter service failure (Tse and Ho, 2009). Even though foreign casinos have endeavored to improve service quality,

---

they have been constantly struggling with challenges such as lack of labor supply as well as the relatively poor educational standards and language ability of the front-line employees. One way to cope with these issues is to rely more on technology and to encourage customers to play more electronic games (e.g. slot machines and electronic table games). Another method is to utilize customer preference-based loyalty programs, such as the M Life loyalty program from MGM Resorts International, to attract leisure customers with perks (Benston, 2011). Such a program allows customers to earn points from various casino offerings including dining, accommodation, and entertainment and to redeem these points with rewards of the customers' choice. In fact, customers might receive customized service with a chance to mingle with celebrities and sports figures, or to be involved in an entertainment show, depending on the tier of the loyalty program (Benston, 2011).

Findings of this study also indicate a problem in food services, as the mean score is just mediocre and ranks the lowest among the other three casino service dimensions. Although the Vegas-style casinos strive to promote a Western diet (e.g. gourmet sandwiches, all-you-can-eat buffet, and wine) to Chinese gamblers, their food offerings are mostly high-priced and are not geared toward the taste of the Chinese. Prior studies have consistently revealed the motivational role of food in attracting tourists in casinos and gaming destinations (Wong and Rosenbaum, 2010; Lam and Vong, 2009; Wan, 2011). Tanford and Lucas (2010) also acknowledge the indirect impact of dining on casino profits. International casino operators should strive to understand the dietary preferences of Chinese consumers and fine-tune their dining options and pricing strategy accordingly in order to be more competitive.

The current study also has implications for customer preferences of gaming destinations. Unsatisfactory employee service and food offerings compounded with inadequate tourism-based infrastructure in Macau may explain why tourists stayed in Macau for an average of only 1.2 days versus 3.5 days in Las Vegas, despite the opening of the sprawling Venetian and City of Dreams integrated gaming establishments (*Inside Asian Gaming*, 2007). Destination authorities should team up with the casino operators to leverage casino and other tourism facilities to induce a more pronounced effect in luring tourists for a longer stay. Knowing that leisure players seek various leisure and entertainment alternatives (Wong and Rosenbaum, 2010), gaming destinations should encourage more integrated themed casino complexes, as the casino's physical settings play an important role in the overall service evaluation.

#### *Limitations and future research*

Our research is a timely response to the need for investigation of the rapid casino gambling development in the Asian leisure market. Yet, the research findings should be interpreted with caution, as some of the results are only marginally significant. However, Burgess and Steenkamp (2006) suggest that the traditional significance levels are of more doubtful value in emerging markets (EMs) due to within-country heterogeneity. They recommend acceptance of more liberal significance criteria when doing research in EMs. Hence, we believe that the results of this study are reasonably reliable. Also, the findings are derived from a Vegas-like casino in Macau among the mass-market Chinese casino clientele. Given the growing interest in the gaming sector, we encourage researchers to replicate the current study in other Asian destinations.

We use bet limit as a surrogate for game player classification. Based on the literature (Cotte, 1997; Lam, 2005, 2007) and our qualitative findings, we believe that this classification is justifiable and important for casino operations. Nevertheless, we also acknowledge other plausible classification indicators such as length and frequency of gambling. Hence, our definition of hardcore players is limited to the financial aspect of gambling. We encourage future research to explore the role of other behavioral attributes on casino players' service perceptions. Because the majority of casino players are considered leisure low-rollers, future research might further classify this group of customers into more meaningful segments. Scholars should look more deeply into consumer motivations (beyond financial rewards) and address why millions of Chinese leisure players flock to gaming destinations such as Macau and Las Vegas during their leisure excursions. Finally, although it is desirable to grow the at-large leisure players into hardcore loyal gamblers, as most contemporary casinos do through customer relationship programs (Kale, 2005), we urge future research to investigate the potential unintended consequences of pathological gambling on a casino's value, brand, and relationship equities in the long run (Rust *et al.*, 2004).

#### Note

1. The 300 MOP minimum bet limit was set by the casino.

#### References

- Bagozzi, R.P., Gopinath, M. and Nyer, P.U. (1999), "The role of emotions in marketing", *Journal of the Academy of Marketing Science*, Vol. 27 No. 2, pp. 184-206.
- Baloglu, S. (2002), "Dimensions of customer loyalty: Separating the friends from the well wishers", *Cornell Hotel & Restaurant Administration Quarterly*, Vol. 43 No. 1, pp. 47-59.
- Benston, L. (2011), "MGM loyalty program will reward customers with perks not imagined previously", *Las Vegas Sun*, January 6.
- Bitner, M.J. (1992), "Servicescapes: the impact of physical surroundings on customers and employees", *Journal of Marketing*, Vol. 56 No. 2, pp. 57-71.
- Brady, M.K. and Cronin, J.J. (2001), "Some new thoughts on conceptualizing perceived service quality: a hierarchical approach", *Journal of Marketing*, Vol. 65 No. 3, pp. 34-49.
- Brody, L. and Hall, J. (1993), "Gender and emotion", in Lewis, M. and Haviland, J. (Eds), *Handbook of Emotions*, Guilford Press, New York, NY.
- Bulmer, M.G. (1979), *Principles of Statistics*, Dover Publications, Mineola, NY.
- Burgess, S.M. and Steenkamp, J.-B.E.M. (2006), "Marketing renaissance: how research in emerging markets advances marketing science and practice", *International Journal of Research in Marketing*, Vol. 23 No. 4, pp. 337-56.
- Buttle, F.A. (1993), "Selling services: a contingency model", *Journal of Services Marketing*, Vol. 7 No. 3, pp. 36-48.
- Capra, S., Wright, O., Sardie, M., Bauer, J. and Askew, D. (2005), "The acute hospital foodservice patient satisfaction questionnaire: the development of a valid and reliable tool to measure patient satisfaction with acute care hospital foodservices", *Foodservice Research International*, Vol. 16 Nos 1/2, pp. 1-14.
- Carr, D. (1988), "Turning hotel restaurants into profit centers", *Cornell Hotel & Restaurant Administration Quarterly*, Vol. 28 No. 4, pp. 15-16.



- 
- Chen, P.-T. and Hu, H.-H. (2010), "How determinant attributes of service quality influence customer-perceived value", *International Journal of Contemporary Hospitality Management*, Vol. 22 No. 4, pp. 535-51.
- Chiu, J. and Storm, L. (2010), "Personality, perceived luck and gambling attitudes as predictors of gambling involvement", *Journal of Gambling Studies*, 26(2), pp. 205-27.
- Chu, K. (2010), "US casinos' bet on Macau pays off", *USA Today*, Money section, p. 1b.
- Corporate Meetings & Incentives* (2008), "Golf, spas, and shopping", *Corporate Meetings & Incentives*, pp. 46-52.
- Cotte, J. (1997), "Chances, trances, and lots of slots: gambling motives and consumption experiences", *Journal of Leisure Research*, Vol. 29 No. 4, pp. 380-406.
- Cowley, E. (2008), "The perils of hedonic editing", *Journal of Consumer Research*, Vol. 35 No. 1, pp. 71-84.
- Cramer, D. (1997), *Basic Statistics for Social Research*, Routledge, London.
- Cronin, J.J. and Taylor, S.A. (1994), "SERVPERF versus SERVQUAL: reconciling performance-based and perceptions-minus-expectations", *Journal of Marketing*, Vol. 58 No. 1, pp. 125-31.
- Devoss, D. (2008), "Macau hits the jackpot", available at: [www.smithsonianmag.com/travel/macau-jackpot.html?c=y&page=2](http://www.smithsonianmag.com/travel/macau-jackpot.html?c=y&page=2) (accessed January 16, 2009).
- Dittmar, H., Long, K. and Meek, R. (2004), "Buying on the internet: gender differences in online and conventional buying motivations", *Sex Roles*, Vol. 50 Nos 5/6, pp. 423-44.
- Field, A. (2005), *Discovering Statistics Using SPSS for Windows*, Sage Publications, London.
- Financial & Insurance Meetings* (2008), "Entertainment and shows", *Financial & Insurance Meetings*, Vol. 44, pp. 30-2.
- Fisher, S. (1993), "The pull of the fruit machine: a sociological typology of young players", *Sociological Review*, Vol. 41 No. 3, pp. 446-74.
- Fong, K.-C.D. and Ozorio, B. (2005), "Gambling participation and prevalence estimates of pathological gambling in a far-east gambling city: Macao", *UNLV Gaming Research & Review Journal*, Vol. 9 No. 2, pp. 15-28.
- Ganesan-Lim, C., Russell-Bennett, R. and Dagger, T. (2008), "The impact of service contact type and demographic characteristics on service quality perceptions", *Journal of Services Marketing*, Vol. 22 No. 7, pp. 550-61.
- Gellatly, A. (2008), "Macau's junkies fact tough trading as mainland downturn hits", available at: [www.gamblingcompliance.com/node/22764](http://www.gamblingcompliance.com/node/22764) (accessed January 16, 2009).
- Gilligan, C. (1982), *In a Different Voice: Psychological Theory and Women's Development*, Harvard University Press, Cambridge, MA.
- Gronroos, C. (1984), "A service quality model and its marketing implications", *European Journal of Marketing*, Vol. 18 No. 4, pp. 36-44.
- Gu, Z. (2006), "Product differentiation: key to Macau's gaming revenue growth", *Journal of Revenue & Pricing Management*, Vol. 4 No. 4, pp. 382-8.
- Hashimoto, K. (2008), *Casino Management*, Pearson, Upper Saddle River, NJ.
- Henderson, R.I. (1984), *Performance Appraisal*, Reston Publishing, Reston, VA.
- Heung, V.C.S., Fei, C. and Hu, C. (2006), "Customer and employee perception of a green hotel - the case of five-star hotels in China", *China Tourism Research*, Vol. 2 No. 3, pp. 270-97.

- Hightower, R., Brady, M.K. and Baker, T.L. (2002), "Investigating the role of the physical environment in hedonic service consumption: an exploratory study of sporting events", *Journal of Business Research*, Vol. 55 No. 9, pp. 697-707.
- Huber, V.L. (1989), "Comparison of the effects of specific and general performance standards on performance appraisal decisions", *Decision Sciences*, Vol. 20 No. 3, pp. 545-57.
- Hume, M. and Mort, G.S. (2008), "Understanding the role of Involvement in customer repurchase of the performing arts", *Journal of Nonprofit & Public Sector Marketing*, Vol. 20 No. 2, pp. 297-328.
- Hyun, S.S. (2010), "Predictors of relationship quality and loyalty in the chain restaurant industry", *Cornell Hospitality Quarterly*, Vol. 51 No. 2, pp. 251-67.
- Iacobucci, D. and Ostrom, A. (1993), "Gender differences in the impact of core and relational aspects of services on the evaluation of service encounters", *Journal of Consumer Psychology*, Vol. 2 No. 3, pp. 257-86.
- Inside Asian Gaming* (2007), "Changing Macau's visitor profile", *Inside Asian Gaming*, pp. 6-9.
- Jalal, K. (2008), "The Asian gaming 50", *Inside Asian Gaming*, pp. 5-33.
- Jang, S., Liu, Y. and Namkung, Y. (2011), "Effects of authentic atmospherics in ethnic restaurants: investigating Chinese restaurants", *International Journal of Contemporary Hospitality Management*, Vol. 23 No. 5, pp. 662-80.
- Johnson, L., Mayer, K.J. and Champaner, E. (2004), "Casino atmospherics from a customer's perspective: a re-examination", *UNLV Gaming Research & Review Journal*, Vol. 8 No. 2, pp. 1-10.
- Kale, S.H. (2005), "Change management: antecedents and consequences in casino CRM", *UNLV Gaming Research & Review Journal*, Vol. 9 No. 2, pp. 55-67.
- Kellogg, D.L. and Chase, R.B. (1995), "Constructing an empirically derived measure for customer contact", *Management Science*, Vol. 41 No. 11, pp. 1734-50.
- Kim, K. (2008), "Analysis of structural equation model for the student pleasure travel market: motivation, involvement, satisfaction, and destination loyalty", *Journal of Travel & Tourism Marketing*, Vol. 24 No. 3, pp. 297-313.
- Kwun, D.J.-W. (2011), "Effects of campus foodservice attributes on perceived value, satisfaction, and consumer attitude: a gender-difference approach", *International Journal of Hospitality Management*, Vol. 30 No. 2, pp. 252-61.
- Kyle, G.T., Theodorakis, N.D., Karageorgiou, A. and Lafazani, M. (2010), "The effect of service quality on customer loyalty within the context of ski resorts", *Journal of Park & Recreation Administration*, Vol. 28 No. 1, pp. 1-15.
- Lai, D.W.L. (2006), "Gambling and the older Chinese in Canada", *Journal of Gambling Studies*, Vol. 22 No. 1, pp. 121-41.
- Lam, C. and Vong, T.-N. (2009), "Macao: the gambling paradise – profiling the roles and motives of customers", *Journal of China Tourism Research*, Vol. 5 No. 4, pp. 388-400.
- Lam, D. (2005), "Slot or table? A Chinese perspective", *UNLV Gaming Research & Review Journal*, Vol. 9 No. 2, pp. 69-72.
- Lam, D. (2007), "An observation study of Chinese baccarat players", *UNLV Gaming Research & Review Journal*, Vol. 11 No. 2, pp. 63-73.
- LaPlante, D.A., Nelson, S.E., LaBrie, R.A. and Shaffer, H.J. (2011), "Disordered gambling, type of gambling and gambling involvement in the British Gambling Prevalence Survey 2007", *European Journal of Public Health*, Vol. 21 No. 4, pp. 532-7.

- Laroche, M., Saad, G., Cleveland, M. and Browne, E. (2000), "Gender differences in information search strategies for a Christmas gift", *Journal of Consumer Marketing*, Vol. 17 Nos 6/7, pp. 500-24.
- Las Vegas Convention & Visitors Authority (2010), "2009 Las Vegas visitor profile study", available at: [www.lvcva.com/press/statistics-facts/index.jsp](http://www.lvcva.com/press/statistics-facts/index.jsp) (accessed October 6, 2010).
- Li, J.-G.T., Kim, J.-O. and Lee, S.Y. (2009), "An empirical examination of perceived retail crowding, emotions, and retail outcomes", *Service Industries Journal*, Vol. 29 No. 5, pp. 635-52.
- Loi, K.-I. and Kim, W.G. (2010), "Macao's casino industry: reinventing Las Vegas in Asia", *Cornell Hospitality Quarterly*, Vol. 51 No. 2, pp. 268-83.
- Lucas, A.F. (2003), "The determinants and effects of slot servicescape satisfaction in a Las Vegas hotel casino", *UNLV Gaming Research & Review Journal*, Vol. 7 No. 1, pp. 1-19.
- McCain, S.-L., Jang, S. and Hu, C. (2005), "Service quality gap analysis toward customer loyalty: practical guidelines for casino hotels", *International Journal of Hospitality Management*, Vol. 24 No. 3, pp. 465-72.
- McCleary, K.W. and Weaver, P.A. (1994), "Gender-based differences in business travelers' lodging preferences", *Cornell Hotel & Restaurant Administration Quarterly*, Vol. 35 No. 2, pp. 51-8.
- Macau Statistics and Census Service (2009), "2008 annual tourism statistics", available at: [www.dsec.gov.mo](http://www.dsec.gov.mo) (accessed August 20, 2009).
- MacDonald, A. (1996), "Casino player rating systems in Australia", available at: [www.urbino.net/casino2000.cfm?specific2000=Casino%20Player%20Rating%20Systems%20in%20Australia&trigger=0](http://www.urbino.net/casino2000.cfm?specific2000=Casino%20Player%20Rating%20Systems%20in%20Australia&trigger=0)
- Machleit, K.A., Eroglu, S.A. and Mantel, S.P. (2000), "Perceived retail crowding and shopping satisfaction: what modifies this relationship?", *Journal of Consumer Psychology*, Vol. 9 No. 1, pp. 29-42.
- Mattila, M., Karjaluoto, H. and Pentto, T. (2003), "Internet banking adoption among mature customers: early majority or laggards?", *Journal of Services Marketing*, Vol. 17 No. 5, pp. 514-26.
- Mersha, T. (1990), "Enhancing the customer contact model", *Journal of Operations Management*, Vol. 9 No. 3, pp. 391-405.
- Mittal, V. and Kamakura, W.A. (2001), "Satisfaction, repurchase intent, and repurchase behavior: investigating the moderating effect of customer characteristics", *Journal of Marketing Research*, Vol. 38 No. 1, pp. 131-42.
- Namkung, Y., Jang, S., Almanza, B. and Ismail, J. (2009), "Identifying the underlying structure of perceived service fairness in restaurants", *International Journal of Contemporary Hospitality Management*, Vol. 21 No. 4, pp. 375-92.
- O'Cass, A. (2000), "An assessment of consumer product, purchase decision, advertising and consumption involvement", *Journal of Economic Psychology*, Vol. 21 No. 5, pp. 545-76.
- O'Cass, A. (2004), "Fashion clothing consumption: antecedents and consequences of fashion clothing involvement", *European Journal of Marketing*, Vol. 38 No. 7, pp. 869-82.
- Oliver, R.L. and Bearden, W.O. (1983), "The role of involvement in satisfaction processes", *Advances in Consumer Research*, Vol. 10 No. 1, pp. 250-5.
- Online-Casinos.com (2009), "Macao's bad run continues", available at: [www.online-casinos.com/news/news8275.asp](http://www.online-casinos.com/news/news8275.asp) (accessed January 16, 2009).
- Osno, E. (2008), "Tiny Macau entering new gambling era", *Honolulu Advertiser*, January.

- Ozorio, B. and Fong, D.K.-C. (2004), "Chinese casino gambling behaviors: risk taking in casinos vs investments", *UNLV Gaming Research & Review Journal*, Vol. 8 No. 2, pp. 27-38.
- Papineau, E. (2005), "Pathological gambling in Montreal's Chinese community: an anthropological perspective", *Journal of Gambling Studies*, Vol. 21 No. 2, pp. 157-78.
- Parasuraman, A., Zeithaml, V.A. and Berry, L.L. (1988), "SERVQUAL: a multiple-item scale for measuring consumer perceptions of service quality", *Journal of Retailing*, Vol. 64 No. 1, pp. 12-40.
- Powell, M. and Ansic, D. (1997), "Gender differences in risk behaviour in financial decision-making: an experimental analysis", *Journal of Economic Psychology*, Vol. 18 No. 6, p. 605.
- Ramanathan, U. and Ramanathan, R. (2011), "Guests' perceptions on factors influencing customer loyalty", *International Journal of Contemporary Hospitality Management*, Vol. 23 No. 1, pp. 7-25.
- Ramdeen, C., Santos, J. and Hyun Kyung, C. (2007), "Measuring the cost of quality in a hotel restaurant operation", *International Journal of Contemporary Hospitality Management*, Vol. 19 No. 4, pp. 286-95.
- Rosenbaum, M.S. (2008), "Return on community for consumers and service establishments", *Journal of Service Research*, Vol. 11 No. 2, pp. 179-96.
- Rust, R.T. and Chung, T.S. (2006), "Marketing models of service and relationships", *Marketing Science*, Vol. 25 No. 6, pp. 560-80.
- Rust, R.T., Lemon, K.N. and Zeithaml, V.A. (2004), "Return on marketing: using customer equity to focus marketing strategy", *Journal of Marketing*, Vol. 68 No. 1, pp. 109-27.
- Rust, R.T. and Oliver, R.L. (1994), "Service quality: insights and managerial implications from the frontier", in Rust, R.T. and Oliver, R.L. (Eds), *Service Quality: New Directions in Theory and Practice*, Sage Publications, Thousand Oaks, CA, pp. 1-19.
- Saad, G. and Gill, T. (2009), "Self-ratings of physical attractiveness in a competitive context: When males are more sensitive to self-perceptions than females", *Journal of Social Psychology*, Vol. 149 No. 5, pp. 585-99.
- Sebastianelli, R., Tamimi, N. and Rajan, M. (2008), "Perceived quality of online shopping: does gender make a difference?", *Journal of Internet Commerce*, Vol. 7 No. 4, pp. 445-69.
- Shaw, S.M. (1994), "Gender, leisure, and constraint: towards a framework for the analysis of women's leisure", *Journal of Leisure Research*, Vol. 26 No. 1, pp. 8-22.
- Snipes, R.L., Thomson, N.F. and Oswald, S.L. (2006), "Gender bias in customer evaluations of service quality: an empirical investigation", *Journal of Services Marketing*, Vol. 20 No. 4, pp. 274-84.
- Stutz, H. (2008), "Sahara fills locals' wish list – loose slots, cheap food", *Las Vegas Business Press*, Vol. 25 No. 27, p. 4.
- Suh, E. and Erdem, M. (2009), "Gap analysis as a diagnostic tool for improving the slot gaming experience", *Journal of Hospitality Marketing & Management*, Vol. 18 No. 4, pp. 445-55.
- Tanford, S. and Lucas, A.F. (2010), "The indirect impact of casual dining on low-end gaming in destination and local casinos", *International Journal of Hospitality Management*, Vol. 30 No. 3, pp. 486-94.
- Tang, S.-K.C., Wu, A.M.S. and Tang, J.Y.C. (2007), "Gender differences in characteristics of Chinese treatment-seeking problem gamblers", *Journal of Gambling Studies*, Vol. 23 No. 2, pp. 145-56.

- 
- Titz, K., Andrus, D. and Miller, J. (2002), "Hedonistic differences between mechanical game players and table game players: an exploratory investigation on the road to comprehensive theory for gambling", *UNLV Gaming Research & Review Journal*, Vol. 6 No. 1, pp. 23-32.
- Tse, E.C.-Y. and Ho, S.-C. (2009), "Service quality in the hotel industry", *Cornell Hospitality Quarterly*, Vol. 50 No. 4, pp. 460-74.
- Wakefield, K.L. and Blodgett, J.G. (1999), "Customer response to intangible and tangible service factors", *Psychology & Marketing*, Vol. 16 No. 1, pp. 51-68.
- Wall, E.A. and Berry, L.L. (2007), "The combined effects of the physical environment and employee behavior on customer perception of restaurant service quality", *Cornell Hotel & Restaurant Administration Quarterly*, Vol. 48 No. 1, pp. 59-69.
- Wan, Y.K.P. (2011), "Increasing Chinese tourist gamblers in Macao: crucial player characteristics to identify and exploit", *UNLV Gaming Research & Review Journal*, Vol. 15 No. 1, pp. 51-69.
- Watters, C.A., Sorensen, J., Fiala, A. and Wismer, W. (2003), "Exploring patient satisfaction with foodservice through focus groups and meal rounds", *Journal of the American Dietetic Association*, Vol. 103, pp. 1347-9.
- Westbrook, R.A. and Oliver, R.L. (1991), "The dimensionality of consumption emotion patterns and consumer satisfaction", *Journal of Consumer Research*, Vol. 18 No. 1, pp. 84-91.
- Whiting, A. (2009), "Push, scream, or leave: how do consumers cope with crowded retail stores?", *Journal of Services Marketing*, Vol. 23 No. 7, pp. 487-95.
- Wong, I.A. (2011), "Forecasting Macau's gaming revenue and its seasonality", *UNLV Gaming Research & Review Journal*, Vol. 15 No. 1, pp. 87-93.
- Wong, I.A. and Fong, H.I.V. (2010), "Examining casino service quality in the Asian Las Vegas: an alternative approach", *Journal of Hospitality Marketing & Management*, Vol. 19 No. 8, pp. 842-65.
- Wong, I.A. and Fong, H.I.V. (2011), "Development and validation of the casino service quality scale: CASERV", *International Journal of Hospitality Management*, Vol. 31 No. 1, pp. 209-17.
- Wong, I.A. and Rosenbaum, M.S. (2010), "Beyond hardcore gambling: understanding why mainland Chinese visit casinos in Macau", *Journal of Hospitality & Tourism Research*, Vol. 36 No. 1, pp. 32-51.
- Young, M.M., Wohl, M.J.A., Matheson, K., Baumann, S. and Anisman, H. (2008), "The desire to gamble: the influence of outcomes on the priming effects of a gambling episode", *Journal of Gambling Studies*, Vol. 24 No. 3, pp. 275-93.
- Zaichkowsky, J.L. (1994), "The personal involvement inventory: reduction, revision, and application to advertising", *Journal of Advertising*, Vol. 23 No. 4, pp. 59-70.
- Zeithaml, V.A. and Parasuraman, A. (2004), *Service Quality*, Marketing Science Institute, Cambridge, MA.
- Zeng, Z. and Forrest, D. (2009), "High rollers from mainland China: a profile based on 99 cases", *UNLV Gaming Research & Review Journal*, Vol. 13 No. 1, pp. 29-43.

### Corresponding author

IpKin Anthony Wong can be contacted at: [anthonywong@ift.edu.mo](mailto:anthonywong@ift.edu.mo)