Casino-Induced Satisfaction of Needs and Casino Customer Loyalty: The Moderating Role of Subjective Norms and Perceived Gaming Value

Abstract

This study assesses the relationship between casino-induced satisfaction of needs and casino customer loyalty, and explores the moderating role of gaming attitude, subjective norms, perceived behavioral control, perceived gaming value, and perceived personal luck in this relationship. With 425 valid responses collected from Macau casino goers, the results indicate that casinos can enhance customer loyalty by satisfying their customers' inner needs, including their self-actualization, esteem, belonging, safety and security, and physiological needs. In strengthening the relationship between casino-induced satisfaction of needs and customer loyalty, casinos should pay special attention to subjective norms and perceived gaming value.

Keywords: Satisfaction of needs, customer loyalty, casino gaming, subjective norms, perceived gaming value.

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1. Introduction

Customer loyalty is a crucial business goal because, if managed properly, it directly improves the bottom line of a business (Brooks, 2000; Jeon & Hyun, 2013; Reinartz & Kumar, 2002). The hospitality and marketing literature has paid a great deal of attention to identifying the antecedents of and measuring various relationships with customer loyalty, so as to help businesses achieve their necessary profitability. Among the studied antecedents, customer satisfaction has commonly been recognized as a significant driver of loyalty (Chiou & Shen, 2006), which directly contributes to customer retention (Zeithaml et al., 1996). However, it should be noted that customer satisfaction does not affirm customer loyalty (Bowen & Chen, 2001); depending on customers' experience with products/services, customer satisfaction may or may not exert impacts on customer loyalty (McAlexander et al., 2003). In the context of casino gaming, casino customer satisfaction has been found, on the one hand, to enhance casino customer loyalty (Wong, 2013; Wong & Fong, 2010) by providing the foremost competitive strategy through which to maintain a satisfactory casino market share (Mayer et al., 1998). On the other hand, researchers have argued that casino customer satisfaction has little impact on customers' patronage to a casino (Prentice, 2013), as customer satisfaction is mostly determined by winning, which in turn encourages customers to revisit a particular casino (Jeon & Hyun, 2013). In general, the literature supports the notion that customer satisfaction plays an important role in forming customer loyalty (Chandrashekaran et al., 2007; Lam et al., 2004).

Nevertheless, irrespective of industry, customer satisfaction to date has mostly been measured in terms of customers' perceived performance quality in regard to a product or service (Jeon & Hyun, 2013; Yüksel & Rimmington, 1998), following expectancy disconfirmation theory (Oliver,

1980). That is, satisfaction is fulfilled if the performance of a product or service exceeds a customer's pre-purchase expectations regarding that particular product or service. Most previous customer satisfaction studies have focused on how customers assess product offerings and services presented by the service provider, but have largely overlooked whether or not such products/services satisfy a customer's inner needs; a customer may feel satisfied with a particular product or service (e.g., tasty abalone) but that same product or service may not necessarily satisfy her or his inner needs (e.g., feeling thirsty). One exception to this trend is Tsai et al.'s (2017) study, which measured customers' casino-induced satisfaction of needs by adopting Maslow's hierarchy of needs. They found that casino customers' safety and security, self-actualization, and physiological needs, if fulfilled by a casino's product offerings and services rendered, positively affected those customers' loyalty to the casino. However, their study did not examine whether or not casino-induced satisfaction of needs, as an omnibus construct of needs, has a significant impact on customer loyalty. Their work also lacked an exploration of moderators, which may alter the relationship between casino-induced satisfaction of needs and customer loyalty. This study aims to fill this research gap.

This study's research objectives are twofold. First, using Macau casinos as a study context, we examine whether or not casino-induced satisfaction of needs is related to customer loyalty. The second objective is to identify and assess the potential moderators of this relationship, including gaming attitude, subjective norms, perceived behavioral control, perceived gaming value, and perceived personal luck. Macau has seen exponential growth, both in terms of casino gaming supply and demand, since its gaming liberalization in 2002 (Tsai et al., 2017). While Macau's casino gaming industry has experienced ups and downs due to various internal and external

environmental factors, such as the 2008 global financial crisis, the Chinese government's anti-graft campaign (Oster, 2014), and the recent COVID-19 pandemic, the industry is still intensely competitive, with the development of mega casino resorts in the pipeline (Blaschke, 2020), in addition to its already competitive casino gaming landscape. Understanding the satisfaction of casino customers' inner needs, besides the prevailing casino customer satisfaction measurement focusing on the performance assessment of products/services in the existing literature, its possible influence on those customers' loyalty to casinos, and potential moderating effects exerted on this influence, will not only extend existing casino customer satisfaction research, but will also allow casino operators to stay vigilant in regard to factors critical to their bottom line profitability via proper customer loyalty management (Reinartz & Kumar, 2002).

2. Literature Review

2.1 Satisfaction of Needs and Loyalty in Casino Gaming

The concept of induced satisfaction of needs originates from Maslow's theory of human motivation (Maslow, 1943). The theory posited that, among the five categories of human needs, a higher level of needs (e.g., safety and security needs) will be sought when a lower level of needs (e.g., physiological needs) is satisfied, in an ascending order. Using a sample of 386 adult respondents, Taormina and Gao (2013) found that, the more each lower-level need was satisfied, the more the next higher-level need was satisfied. They also revealed that family support, traditional values, and life satisfaction were positively related to the satisfaction of all five categories of needs, and that the satisfaction of a higher level of needs was preceded by that of a lower level of needs in the hierarchy. Even though reaching a higher level of needs is innate (Maslow, 1970) and the five categories of needs are logically inter-correlated, empirical evidence

challenges the existence of a definite hierarchy (Wahba & Bridwell, 1976), sequence (Weiner, 1992), or ranking (Goebel & Brown, 1981). Hofstede (1984) criticized the ranking order of the five categories of needs as being ethnocentric; other researchers have also questioned it from various perspectives, including culture and society (Gambrel & Cianci, 2003; Jones, 2007), peace vs. war time (Tang & Ibrahim, 1998; Tang et al., 2002), and age (Goebel & Brown, 1981).

Using Macau as a study context, Tsai et al. (2017) developed a five-factor casino-induced satisfaction of needs scale, including the dimensions of physiological needs, safety and security, belonging, esteem, and self-actualization, and examined the relationship between the satisfaction of individual needs and casino customer loyalty. They found that the respondents' most visited casinos only just satisfied their various inner needs and not all of the inner needs contributed significantly to their loyalty to those casinos. Advancing Tsai et al.'s (2017) study and verifying the need to satisfy casino customers' inner needs in addition to the product/service-type of customer satisfaction, in order to drive customer loyalty, in this study, we measure casino customers' induced satisfaction of needs as a higher-order construct encompassing the five categories of needs and assess its impact on casino customer loyalty on the basis of service profit chain theory (Heskett et al., 1994) and satisfaction-loyalty theory (Fu et al., 2018; Jen et al., 2011). We thus hypothesize the following.

H1: Casino-induced satisfaction of needs is positively related to casino customer loyalty.

2.2 Gaming Attitudes, Subjective Norms, and Perceived Behavioral Control

The theory of planned behavior (TPB), proposed by Ajzen (1985), addresses the premise that a

rational person makes systematic use of information available prior to performing a certain behavior. A person′s willingness (i.e., motivation) alone is not sufficient to perform a behavior, because this performance depends, to a certain degree, on other non-motivational factors, such as opportunity, ability, moral concerns, and the availability of requisite opportunities and resources (Bagozzi, 1992). All of these factors, be they motivational or non-motivational, collectively comprise a person′s actual control over the behavior performed. In other words, an individual′s decision whether or not to perform a certain behavior is jointly determined by both motivation (i.e., attitude toward the behavior and the subjective norm) and ability (i.e., perceived behavioral control). Support for TPB is well documented in literature related to consumer behavior (e.g., Fusilier & Durlabhji, 2005; Hui & Bateson, 1991) and gambling (e.g., Lee, 2013; Martin et al., 2010; Wood & Griffiths, 2004; Wu et al., 2017). Making reference to the roles of the three components in relation to performing certain behaviors in the TPB framework, this study argues that they could exert moderating effects on the relationship between casino-induced satisfaction of needs and casino customer loyalty.

Attitudes toward behavior refer to one's favorable or unfavorable evaluation of the likely consequences of performing it (Ajzen, 1991). When someone expects favorable (unfavorable) outcomes from performing a certain behavior, he or she is more likely to hold a positive (negative) attitude toward that behavior (Bagozzi, 1992). Applying this idea to casino gaming, people with positive gaming attitudes expect favorable outcomes from playing at casinos, possibly leading to a stronger relationship between casino-induced satisfaction of needs and casino customer loyalty (Moore & Ohtsuka, 1999; Oh & Hsu, 2001). In contrast, if people

perceive unfavorable consequences of casino gaming and hold negative gaming attitudes (Tao et al., 2011), these negative attitudes may weaken the relationship between casino-induced satisfaction of needs and casino customer loyalty, even when those individuals feel satisfied with the casino′s product/services. Drawing on Bagozzi′s (1992) attitude theory, we hypothesize the following.

H2: Gaming attitude positively moderates the relationship between casino-induced satisfaction of needs and casino customer loyalty.

Subjective norms refer to the perceived influence of how others who are important to an individual feel about that individual performing a certain behavior (Ajzen, 1991). That is, whether or not an individual performs a certain behavior could be subject to expectations from people who are important to that individual and whether or not he or she follows their expectations. Gaming literature consistently shows that individuals who receive more positive evaluations from family and friends tend to gamble more frequently (e.g., Martin et al., 2010; Philips & Jang, 2010; Wu & Tang, 2012). Adapted to casino gaming, people with high subjective norms may develop their loyalty toward a casino due to the approval of others who are important to them, or may be under perceived social pressure or religious convictions/beliefs resulting from the disapproval of others who are important to them in regard to performing gaming behavior (Bagozzi, 1992; Lee et al., 2014; Uecker & Stokes, 2016), regardless of whether or not their induced satisfaction of needs is met. In contrast, those with low subjective norms do not think highly of how others who are important to them feel about their playing at a certain casino and may instead rely more on their level of induced satisfaction of needs in forming their loyalty

toward a casino. Drawing on Ajzen's (1985) TPB, the following hypothesis is formulated.

H3: Subjective norms negatively moderate the relationship between casino-induced satisfaction of needs and casino customer loyalty.

Perceived behavioral control refers to one′s belief in the ease or difficulty of carrying out certain behavior (Ajzen & Madden, 1986). While Ajzen (1991) argued that the actual performance of behavior is under one′s volitional control (e.g., motivation) or depends on non-volitional factors (e.g., opportunities and resources), Ajzen (2002) later noted that the components of perceived behavioral control – self-efficacy and controllability reflecting internal and external factors, respectively – contribute to the performance of behavior. Since then, researchers have paid more attention to examining perceived behavioral control over pathological gambling behaviors (Goodie, 2005), shaping gambling intention (Martin et al., 2010), and casino visitation intention (Phillips & Jang, 2010). Assessing internal and/or external control factors, people with higher levels of perceived behavioral control may find it easier to access and play at casinos, compared to those with lower levels of perceived behavioral control, thus strengthening the relationship between casino-induced satisfaction of needs and casino customer loyalty. On the basis of Ajzen′s (1985) TPB, the following hypothesis is thus proposed.

H4: Perceived behavioral control positively moderates the relationship between casino-induced satisfaction of needs and casino customer loyalty.

2.3 Perceived Gaming Value

People may perceive casino gaming as an investment and expect appropriate returns and clear criteria to qualify for benefits (Hendler & Latour, 2008). Perceived gaming value is, in general, evaluated monetarily through a cost and benefit comparison; studies have shown that the price-value perception contributes significantly to repatronage intentions (Pfaffenberg & Costello, 2001; Shoemaker & Zemke, 2005), gaming experience satisfaction (Lucas & Brandmeir, 2005), and gaming commitment (Ndubisi et al., 2014). Mayer et al. (1998) found perceived gaming value, such as the availability of complimentary meals and rooms, to be related to the timing and frequency of casino visits; they identified, for example, loose slot machines and play time on devices, as factors individuals take into consideration when choosing a casino for slot play. Nevertheless, customers tend to visit or spend less at a casino they perceive as offering an undesirable gaming value (Lucas & Brandmeir, 2005). Lucas and Nemati (2020) found that perceived gaming value from promotional offers (e.g., free-play awards) is greater than the perceived value of potential outcomes derived from additional wagers. Legg and Hancer (2020) found inter-casino competition (frequency of visit) negatively (positively) influenced the perceived gaming value of free slot plays. In other words, people will sense a higher level of perceived gaming value if they feel justified (underpinned by fairness theory) or happy (underpinned by utilitarian theory) that the money they spend could earn them enough benefits in return. Thus, higher levels of perceived gaming value from a casino′s product/service offerings may weaken the influence of casino-induced satisfaction of needs on the development of customers′ loyalty toward that casino. On the other hand, those perceiving a lower level of

gaming value from a casino may require a higher level of induced satisfaction of needs in order to develop their loyalty toward that casino.

All of the above evidence supports the significance of perceived gaming value, defined as a trade-off between total perceived benefits and total perceived sacrifices in regard to casino gaming (Nasution & Mavondo, 2008; Ndubisi et al., 2014). Given that gaming is full of uncertainty, customers may rely on a give-and-take mindset in forming their commitment decisions. Induced satisfaction of needs in regard to a casino is not a robust predictor of loyalty for customers weighing heavily on perceived gaming value. Drawing on perceived value theory (Zeithaml, 1988) and building on the above discussion, the following hypothesis is proposed.

H5: Perceived gaming value negatively moderates the relationship between casino-induced satisfaction of needs and casino customer loyalty.

2.4 Perceived Personal Luck

People have an inclination to attribute outcomes, whether favorable or unfavorable, to luck; this external attribution characteristic is explicit in gambling (Mok & DeFranco, 2000). Different from chance events, perceived personal luck reflects people′s beliefs in a manageable personal skill, which then directs their choice (Wohl & Enzle, 2002). People′s estimates of their personal luck are influenced by contextual variables (e.g., winning, losing, weather, location, direction) and variations in perceived personal luck affect their beliefs in their ability to control chance events, such as casino games (Wohl & Enzle, 2002). Therefore, in the context of casino gaming,

perceived personal luck seems to play a certain role related to games of chance, as differences in perceived personal luck influence people′s future gaming behavior (Wohl & Enzle, 2003).

Customers with a higher level of perceived personal luck tend to be more confident and bet more, as opposed to their counterparts (Darke & Freedman, 1997). Building on the above discussion, we argue that there could be an interposition of perceived personal luck on the relationship between casino-induced satisfaction of needs and casino customer loyalty. Customers with high levels of perceived personal luck may gamble more in terms of amount and frequency of visits and, therefore, the influence their casino-induced satisfaction of needs on the development of their loyalty toward a casino may be less significant; their loyalty toward casinos may be influenced by a luck-driven mindset, as opposed to their inner needs being satisfied by the casinos. In contrast, those perceiving a lower level of perceived personal luck may require a higher level of induced satisfaction of needs in order to develop loyalty toward a casino. Drawing on Weiner′s (1972) attrition theory, we thus propose the following hypothesis.

H6: Perceived personal luck negatively moderates the relationship between casino-induced satisfaction of needs and casino customer loyalty.

In assessing their potential moderating roles on the relationship between the casino-induced satisfaction of needs and casino customer loyalty, gaming attitudes, perceived behavioral control, and perceived personal luck are thought to reflect people′s mindsets about gaming in general, whereas subjective norms and perceived gaming value are related to gaming at a particular casino (i.e., an individual′s most-visited casino). Based on the above theoretical support, a conceptual

framework is depicted in Figure 1.

[Figure 1 near here]

3. Methodology

In order to achieve the research objectives of the study, a questionnaire survey was deployed. The questionnaire consisted of three sections. The first section included two screening questions to ensure the study targeted only those respondents who had visited casinos in Macau at least twice and had played at the same casinos in the last 12 months. The second section asked the respondents to indicate, based on their most-visited casino in Macau, their level of agreement with the measurement items related to the constructs denoted in Figure 1 on a seven-point Likert-type scale ranging from ″1″ (″strongly disagree″) to ″7″ (″strongly agree″). A total of 21 measurement items related to casino-induced satisfaction of needs, including self-actualization, esteem, belonging, safety and security, and physiological needs, were adopted from Tsai et al. (2017); sample questions included ″My need for realizing my innermost gambling desires″ under the self-actualization needs and ″My need for special treatment as a loyalty program member″ under the belonging needs. Five items related to gaming attitude were borrowed from Oh and Hsu (2001); sample questions included ″I favor gaming activities″ and ″Gaming is an enjoyable activity″. Three items related to subjective norms were adapted from Ajzen and Fishbein (1980); sample questions included ″I will play at some casinos because of my close friends′ recommendations″ and ″I will play at some casinos because of the recommendation of

people whose opinions I value″. Four items about perceived behavioral control were adopted from Oh and Hsu (2001); sample questions included ″Gambling is financially affordable to me″ and ″I am skillful in gambling″. Five items about perceived gaming value were borrowed from Ndubisi et al. (2014); sample questions included ″The offer of this casino is value for money″ and ″The service quality of this casino is consistently high″. Six items related to perceived personal luck were adopted from Darke and Freedman (1997) and Steenbergh et al. (2002); sample questions included ″I consider myself to be a lucky person″ and ″Luck works in my favor when playing in casinos″. Three items regarding casino customer loyalty were borrowed from Kim et al. (2003) and Tsai et al. (2015), to reflect the behavioral intention of a customer's preference for a particular casino brand from a selection of similar brands (Jacoby & Chestnut, 1978); in Zeithaml et al. (1996) and Giovanis et al. (2014), among others, a construct of customer loyalty was also employed to assess "behavioral intentions" in regard to retaining the current provider and a willingness to recommend the service provider to others. Sample questions included ″I would recommend this casino to others″ and ″The probability is high that I would visit this casino again″. The last section asked about the demographic profiles of the respondents.

In 2019, among 39.4 million visitors to Macau, 70.86% came from mainland China, who read simplified Chinese, and 21.4% from Hong Kong and Taiwan, who read traditional Chinese (Statistics and Census Service, 2020). The questionnaire used in this survey was originally

developed in English and underwent a translation-back-translation procedure to create an English-Chinese bilingual version, which was pre-tested with bilingual research assistants who had prior casino visit experiences. The survey was then conducted at the entrances of eight large-scale casinos in Macau, including Venetian, Star World, Sands, Galaxy, Wynn, Grand Lisboa, MGM Grand, and City of Dreams. A total of 425 valid questionnaires were successfully collected in two weeks in March 2015, with the assistance of 11 trained helpers, using a script to minimize potential bias brought about by in-person sampling. Outlier cases did not exist, given that all z-values were within the range of -4 to 4.

To test the hypothetical relationship and moderating effects depicted in Figure 1, partial least squares structural equation modeling (PLS-SEM) was employed. PLS-SEM, rather than covariance-based structural equation modeling (CB-SEM), was employed for three major reasons. First, PLS-SEM enables the examination of a moderator that is measured on a continuous scale (such as the moderators in this study), whereas CB-SEM requires splitting the moderator into groups, which would threaten statistical power. Second, different from CB-SEM, PLS-SEM does not have distributional assumptions, so data normality is not a concern (Hair et al., 2017). Third, PLS-SEM is suggested if the study goal is prediction (Hair et al., 2017), which aligns with this study concerning the prediction of casino customer loyalty via casino-induced satisfaction of needs, and when the predictions vary (i.e., moderating effects).

4. Results

4.1 Demographic Profile

As shown in Table 1, among the 425 respondents, 56.2% were female and 43.8% were male. Most of the respondents were aged between 31 and 40 years (41.6%), followed by those aged 21-30 years (39.5%) and 41-50 years (13.4%). More than half of the respondents were married (53.4%), while 44.2% were single. A total of 57% of respondents had an education of high school or above, while 43% had an education of secondary school or below. Among the respondents, 38.6% had a household income of CNY/HKD20,000 (1CNY≈1.2HKD) or more, while 29.6% had a household income of between CNY/HKD10,000-19,999, and 21.9% had a household income of below CNY/HKD10,000 (respondents from mainland China answered the question regarding household income in CNY, while others answered it in HKD). Regarding the respondents′ casino visitation experiences, 36.9% had visited Venetian the most, followed by Grand Lisboa (20.5%), and Galaxy (17.2%).

[Table 1 near here]

4.2 Measurement Model

The sample size was sufficient for performing PLS-SEM, because 10 times the largest number of structural paths were directed at a construct in the structural model (60), which was smaller than the samples (425). Following Tsai et al. (2017), a reflective-reflective hierarchical component model was constructed to operationalize casino-induced satisfaction of needs, as it contains five dimensions. Then, internal consistency was assessed. First, item outer loadings were checked to see if any of them were below 0.4. Three gaming attitude items (see the notes under Table 2) were removed because their outer loadings were lower than 0.4. Although 0.7 was the generally recommended threshold, an outer loading in the range of 0.4 to 0.7 was deemed acceptable if

composite reliability and average variance extracted (AVE) were satisfactory. Following this rationale, the remaining items were retained (see Table 2 for their outer loadings). Second, as shown in Table 3, all Cronbach's alpha and composite reliability values were greater than 0.7. As a result, the internal consistency of the measures was deemed adequate.

[Tables 2 & 3 near here]

Then, the validity of the measures was assessed. The AVE values were greater than 0.5 (see Table 3); hence, convergent validity was considered adequate. Discriminant validity was also satisfactory according to three criteria (Hair et al., 2018): First, the item outer loadings exceeded the item cross loadings. Second, the square-root of AVE of a construct was greater than the correlation of that construct with others (see Table 3). Finally, the Heterotrait-Monotrait Ratio (HTMT) values were less than 0.85, while the ranges of the confidence interval bias corrected values of $HTMT_{inference}$ did not include the value of one.

The internal consistency and convergent validity of the higher-order construct (i.e., casino-induced satisfaction of needs) were also examined. Satisfactory results were derived; both its Cronbach's alpha (0.786) and composite reliability (0.853) were greater than 0.7, while its AVE (0.539) exceeded 0.5. Assessment of discriminant validity was unnecessary because an item measures both the higher-order and the lower-order constructs (Hair et al., 2018). The path coefficients from the higher-order construct to the five lower-order constructs were 0.826 (safety and security), 0.785 (belonging), 0.710 (esteem), 0.706 (self-actualization), and 0.629 (physiological needs). Therefore, in terms of importance, safety and security was the highest

need, while physiological needs were the least important.

4.3 Common Method Bias

While common method bias is a major concern in cross-sectional surveys, both a procedural approach and statistical remedies were used to minimize the potential bias in this study. In terms of the procedural approach, respondents were assured that their data would be treated anonymously and were informed that the data would only be used for academic research purposes (MacKenzie & Podsakoff, 2012; Podsakoff et al., 2003). Regarding statistical remedies, Harman's single-factor approach was adopted; the results showed that the first factor accounted for 31.446% of the variance, which was below the threshold of 50%. Furthermore, following Liang et al.'s (2007) recommendation, we used the unmeasured latent marker construct approach to check for common method bias. The results showed that most method factor loadings were not statistically significant (30/47) and the item substantive variances ($R1^2$) were largely greater than the item method variances ($R2^2$). The averages of $R1^2$ and $R2^2$ were 0.695 and 0.006, respectively, resulting in a ratio of 116:1, which was greater than that of 42:1 in Liang et al. (2007). In summary, common method bias was not a concern in this study.

4.4 Testing of Hypotheses

Before reporting the results of the hypothesis tests, the level of multicollinearity was checked. As the largest VIF value (2.123) was less than five, multicollinearity was not a concern in this study. Table 4 shows the results of the hypothesis tests. The significantly positive relationship between casino-induced satisfaction of needs and casino customer loyalty supported H1.

The moderating effects were examined using a two-stage approach in PLS-SEM. The results show that the relationship between casino-induced satisfaction of needs and casino customer loyalty varied with the subjective norm and perceived gaming value; hence, H3 and H5 were supported. Their negative path coefficients (-0.084 and -0.110, respectively) indicated that the positive relationship between casino-induced satisfaction of needs and casino customer loyalty was stronger when the subjective norm and perceived gaming value were low, as compared to when they were high. Other constructs, including gaming attitude (H2), perceived behavioral control (H4), and perceived personal luck (H6), did not moderate the relationship between casino-induced satisfaction of needs and casino customer loyalty. The predictive relevance of the structural model was satisfactory, as the Q^2 (0.403) on casino loyalty exceeded zero and was large.

[Table 4 near here]

5. Implications

5.1 Theoretical Implications

Assessing satisfaction with product offerings and service provision experienced from an intrinsic perspective is rare, as is measuring its relationship with customer loyalty and identifying moderators for the relationship. Advancing Tsai et al.′s (2017) findings that satisfaction in regard to three inner needs (i.e., safety and security, self-actualization, and physiological needs) in Maslow′s hierarchy of needs positively influences casino customer loyalty, our study further found empirical evidence that casino-induced satisfaction of needs, as a branch of omnibus

customer satisfaction and as a higher-order construct of the five respective needs, enhances casino customer loyalty, contributing to both customer satisfaction and customer loyalty literature, particularly in the casino gaming industry. In enhancing casino customer loyalty, what matters is not just customers′ satisfaction with service quality and products and services (Wong, 2013; Wong & Fong, 2010); whether or not their inner needs are satisfied is also essential.

In addition to their respective roles regarding behavioral intention in the TPB framework (Ajzen, 1985) and repatronage intention (Pfaffenberg & Costello, 2001; Shoemaker & Zemke, 2005), our study further found that subjective norms and perceived gaming value both serve as a negative moderator in the relationship between casino-induced satisfaction of needs and casino customer loyalty. This evidences how the influence of important others and the perception of value brought about by engaging in casino gaming weakened the role that casino-induced satisfaction of needs plays in developing customer loyalty toward a casino. Contrary to our expectations, regardless of their relevance to predicting consumer behavior under the TPB framework (e.g., Lee, 2013; Martin et al., 2010; Wood & Griffiths, 2004; Wu et al., 2017), gaming attitude, perceived behavioral control, and perceived personal luck (Wohl & Enzle, 2003) did not exert any influence on the relationship between casino-induced satisfaction of needs and casino customer loyalty.

5.2 Practical Implications

Traditional thinking and evidence prompt casino operators to spare efforts in providing high-quality casino gaming products and hospitality services, as evidenced by the prevailing literature (e.g., Wong, 2013; Wong & Fong, 2010). Our study plausibly advocates that casino operators in

Macau ought to re-examine whether or not their products offered and services rendered also address their customers′ inner needs, especially in order of priority: safety and security, belonging, esteem, self-actualization, and, finally, physiological needs. Casino operators in Macau should not intentionally downplay other categories of needs that are suggested to be of lower priority, but they may wish to prioritize their investment of resources in creating a safer gaming environment for customers, as well as making them feel comfortable and well taken care of while in the casino. Ensuring customers feel a sense of safety and security, both physically and psychologically, is key to enhancing their induced satisfaction of needs. For example, security and surveillance teams should continuously be trained and updated with state-of-the-art equipment and knowledge. On the casino floor, the security team should strive to leave a professional impression on customers. In marketing their products and services, casinos are recommended to emphasize the security and safety of their properties and monetary procedures. Finally, the definition of a safe and comfortable gaming environment may now include being immune from the threat of easily transmissible illnesses; this mindset is of particular importance in the presence and aftermath of the COVID-19 pandemic. Casinos are advised to implement stringent and precautionary sanitary measures, such as advanced fresh air and ventilation systems capable of filtering and sterilizing bacteria and viruses, along with more frequent and thoroughly performed sanitation tasks.

Our study suggests that the factors of subjective norms and perceived gaming value negatively moderate the relationship between casino-induced satisfaction of needs and casino customer loyalty. First, the influence of inner needs satisfied by a casino in regard to developing customer loyalty toward a casino is of particular importance for individuals with low levels of subjective

norms. People with this trait tend not to take the views of others who are important to them seriously when it comes to choosing which casino to visit and play at more often. Therefore, in developing this group′s customer loyalty toward a particular casino, it is critical that casino operators focus on satisfying their inner needs, so as to secure their continuous patronage.

For casino customers with high levels of subjective norms, even though their inner needs may or may not have been satisfied by a particular casino, whether or not their friends or others who are important to them would recommend they continue patronizing that particular casino plays a critical role in casino operators successfully securing customer loyalty. It is advisable for casino operators to also direct their marketing efforts to both particular customers and their friends and family members through the customers′ nomination, to enhance customers′ patronage to that casino. Such marketing efforts should include both gaming and non-gaming products and services, as people go to casinos not only to gamble, but also for other entertainment options, such as shows, food and beverage, events, and spa services, which are all commonly available in casino resorts. The rewards earned via gaming and non-gaming consumption can also be shared among customers′ circles of friends and family members.

Second, while customers′ perceived gaming value plays a critical role in developing customer loyalty, as price-value perceptions contribute significantly to repatronage intentions (Pfaffenberg & Costello, 2001; Shoemaker & Zemke, 2005), the influence of inner needs satisfied by a casino in regard to developing customer loyalty toward a casino is of notable importance for individuals

who perceive low gaming value from a particular casino. People who do not perceive desirable gaming value from the offers and products of a particular casino may choose to switch to another casino (Lucas & Brandmeir, 2005); therefore, in forming customer loyalty toward a particular casino, satisfying customers′ inner needs is crucial in addition to the enhancement of perceived gaming value.

6. Conclusion, Limitations, and Future Research Directions

In this study, we measured casino-induced satisfaction of needs and tested six hypotheses regarding the relationship between casino-induced satisfaction of needs and casino customer loyalty, alongside potential moderating effects on the relationship, using Macau casinos as a study context. Contributing to the existing body of knowledge in this field, we found evidence to suggest that casino customer loyalty could be enhanced by satisfying casino customers′ inner needs; we also discovered the moderating roles of subjective norms and perceived gaming value on the relationship. Casinos should endeavor to fully understand whether their customers are of high or low subjective norms and the level of their perceived gaming value via customer surveys, focus group interviews, or in-person communication, in order to devise customized products and services designed to meet their inner needs, with the purpose of developing their customer loyalty. Nevertheless, it should be noted that our study results are limited to the Macau context and cannot be generalized to other jurisdictions. This study did not consider game types in differentiating respondents into either table or slot players; this lack of differentiation may have partially resulted in the insignificant moderating role of perceived behavioral control in our study.

Furthermore, a social desirability bias might exist, as the respondents may have responded to the survey questions in a favorable manner by disguising their real views (Podsakoff et al., 2003).

Future research can extend our study to different cultures, to see whether or not the same results hold across different context. As most Macau casino goers are from the greater China region and a few other Asian countries, cultural factors may play certain roles that could reveal different findings. Besides, future research can also compare whether casino-induced satisfaction of needs or conventional casino customer satisfaction can better form casino customer loyalty, so that casino operators can prioritize their efforts to satisfy their customers in different respects.

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