The influence of customer experience with automated games and social interaction on customer engagement and loyalty in casinos

Abstract

Drawing on experiential marketing theory, This study examines the relationship between casino customers' experience with automated games and their engagement and loyalty responses to casinos. Social interaction as a proxy of visiting motivation is modelled as a moderator in the relationship. Customer behaviours include word-of-mouth, visiting frequency, and average spending. The study focuses on Australian land-based casino members with automated game experience. The results show that customer experience with some features of automated games had a positive and significant impact on customer engagement with the casino, which led to positive loyalty. Automated game experience also had an indirect effect on customer loyalty. Social interaction exhibited a significant moderating effect on the relationship between customer engagement and visiting frequency. Discussion and implications of these findings for the literature and practitioners conclude the paper.

Keywords: casino; customer experience; customer engagement; game automation; customer loyalty

INTRODUCTION

Competition in the gaming industry worldwide has intensified among land-based casinos at both local and international levels. Online gambling is also an emerging competitor to the land-based casino (Breen & Hing, 2006). The popularity of online platforms has been boosted because of the recent COVID-19 pandemic, giving gamblers access and convenience (Brown & Hickman, 2020; Jenkinson, et al., 2020). Seeking a competitive advantage is imperative for casinos to grow and sustain the business. Research has shown that engagement and loyalty are reflective of positive customer relationships with the organisation and have become key factors for business growth (Prentice & Loureiro, 2018; Prentice, Wang & Lin, 2018); therefore, identifying the drivers related to these outcomes are imperative for competitive advantage to casinos.

Despite many studies have identified the antecedents of customer engagement and subsequent behavioural responses (e.g., customer loyalty and retention) (see Van Doorn et al., 2010), few studies have approached it within a casino context as engagement can be construed as gambling addiction (Prentice & Wong, 2015). Nevertheless, a casino's strategic goal is to achieve competitive advantage by creating engagement and maintaining loyal customers (Baloglu, et al., 2014; Sui & Baloglu, 2003; Kilby, et al., 2005). Casino marketers have long employed aggressive casino promotions such as free vouchers, complimentary services (Prentice & Wong, 2015; Ma & Lai, 2016), loyalty programs (Barsky & Tzolov, 2010; Baynes, 2011), and through the provision of casino amenities and hosts (Kilby, et al., 2005; Prentice & King, 2011) to attract gaming customers. Researchers (Prentice, 2013; Wong, 2013) have suggested that casinos that provide continuous high quality and differentiated services will attain a competitive advantage and improve customer relationships.

Customer experience has gained attention from marketing practitioners as an influential factor in marketing strategies (Brakus, et al., 2009; Schmitt, 1999). Pine and Gilmore (1999) considered experience as an economic offering in line with goods, services, and commodities. This economic value is manifested in customers' attitudes and behavioural responses to the organisation (Srivastava & Kaul, 2016). Gambling experiences remain one of the top motivations for casino visitors (Wong & Rosenbaum, 2012). While gambling is associated with the financial motivations of gambling customers, it is also viewed as both an entertainment and recreational experience associated with customers cognitive and emotional factors (Clark, 2010). Shim, et al. (2017) applied the concept of the experience economy has been applied in customers' casino experiences and found out that customers' experience with associated gaming products would likely influence their connection and behaviour towards the casino. Hence, gambling games offered in casinos also influence customers' experiences and behaviours.

With the continuous application of technology and its advancements, casinos improved security and reduced costs for the casino (Hashimoto, 2010). In the games area, casinos offer innovative games such as game automation to enhance customer experience (Byrne, 2020; Rockloff, et al., 2016; Anderer, 2020). Innovative games create new experiences for customers to enjoy (Stapleton, 2020), and it presents a point of differentiation and is a market positioning strategy designed to engage customers and entice consumption behaviours. It is then postulated that; casino games affect customer experiences, influencing engagement and behaviours towards the casino. Little, if any, research has attempted to understand how customers' experiences with these innovative automated games may affect their relationship with the casino.

Whilst gambling may be the primary motivation to visit a casino; social interaction is also acknowledged as an important motivation for gamblers (Francis, et al., 2015; Wong &

Rosenbaum, 2012). Customers motivated by a need for social interaction are more likely to visit a land-based casino than participate in online gambling. Previous studies demonstrate that customers seek to interact with other people and are likely to cultivate relationships with other customers and casino employees (Prentice, 2013; Ji & Prentice, 2021), which may influence their behavioural responses. This study investigates how customer experience with casino games influences engagement with the casino and subsequent loyalty and how the intention for social interaction affects these relationships. Investigating these relationships contributes to the casino marketing literature by revealing how customer experience and casino innovation of gaming offerings may provide insights into customer attitudes and behaviours. The research findings may inform casino practitioners with suggestions to enhance customer loyalty and improve competitive advantage. The following discussion reviews the literature and presents hypotheses to test the research questions. The methodology applied to test these hypotheses is then outlined, followed by the research results and discussion. Research implications conclude the paper.

LITERATURE REVIEW

Customer experience with automated games and engagement

Customer experiences have been viewed and defined in several ways in the literature (Jain, et al.,2017). When Pine and Gilmore (1999) introduced the experience economy, the authors claimed that experience is a fourth economic offering in addition to goods, commodities, and services; and defined experiences as "events that engage individuals in a personal way" (p. 12). Schmitt (2008) states that experiences follow a reaction to certain stimulation or result of direct involvement in events. If designed to evoke novelty, surprise, or unexpectedness, experiences can be pleasant and memorable for customers (Skavronskaya, et al., 2020). Jain et al. (2017) summarised the definitions of customer experience as “the aggregate of feelings, perceptions and attitudes formed during the entire process of decision

making and consumption chain involving an integrated series of interaction with people, processes and environment leading to cognitive, emotional, sensory, and behavioural responses (p.649).

Since marketers recognise that customers continue to search for experiences that are memorable, pleasurable, and unique, experiences have been used as a marketing approach known as experiential marketing (Schmitt, 1999). Shim et al. (2017) applied the concept of the four realms of experience (see Pine & Gilmore, 1998) within the casino research to demonstrate how customers can either be absorbed or immersed, and may participate passively or actively in the entertainment, educational, esthetical, and escapist realm of the casino experience. In the casino industry, the customer experience often involves the activity of gambling that is viewed as an entertainment experience (Clark, 2010), and has been considered a determinant for visiting a specific casino (Wong & Rosenbaum, 2012).

As technologies evolve, research has suggested that gaming offerings in casinos will become more advanced with graphics and playing class options designed to provide a higher quality gambling experience (Productivity Commission, 2010). Armstrong et al. (2016, p. 104) defined automated products "as any product that incorporates the technology of Electronic Gaming Machines (EGMs) to alter the relationship between the player and the croupier". In casino games, an example is the automation of traditional table games, such as roulette or blackjack, to electronic or automated table games, which are digitally innovated, much like an electronic poker machine kiosk (Rockloff, et al., 2016). Previously, in the United States of America, automated or electronic versions of table games emerged as substitutes for table games in places where table games were not permitted by law (Anderer, 2020; Royer, 2014). However, the popularity of these electronic or automated games has seen them integrated into the casino together with live table games.

The application of technology in gaming benefited both casinos and casino customers, including security, labour costs, and reflecting consumer trends (Hashimoto, 2010). Geoghegan (2008) suggests some advantages of the automated game include reduction in cheating, elimination of dealer mistakes and customer irritability, decisions for customers, reduction in the downtime associated with shuffling cards, faster play and ensure correct settlements. Other factors which motivate casino proprietors to integrate automated table games include reduced labour costs, the elimination of the croupier, and the utilisation of less floor space (Rockloff, et al., 2016). Automated games benefit casino customers with instant pay-outs, privacy, real-time feedback, enhanced gaming experience (Byrne, 2020; Rockloff, et al., 2016), and engagement with the casino (Mantini, 2019). Research agrees that automated games present a different experience than traditional games despite these benefits and limitations.

On the other hand, customer engagement is defined as "a psychological state that occurs under interactive, co-creative customer experiences with a focal agent/object in focal service relationships" (Brodie, et al., 2011, p. 260). A customer's reaction developed from an experience with a brand is further developed into engagement or interaction after purchase, leading to the creation of a relationship between the customer and the organisation. Several studies have highlighted the benefits of engaged customers (Prahalad & Ramaswamy, 2004; Kozinets, et al., 2010; Brodie, et al., 2011; Hollebeek, 2011), and market research has identified factors that influence customer engagement. Ahn and Back (2018) suggested at sensory, affective, behavioural, and intellectual experiences contribute to positive customer engagement. It may also manifest as a result of service experience with the brand or associated products (Prentice, et al., 2019). Schmitt (1999) suggests that new product creations in relation to experiential marketing should add or help create new experiences while improving the experiential image of the company. The added functions and features of

automated casino games can appeal to the games and influence the customer's new gambling experience and behaviour (Armstrong, et al., 2017; Rockloff, et al., 2016). The foregoing discussion leads to the following hypothesis:

H1: Customers experiences with automated games is significantly related to customer engagement towards casinos.

Customer engagement and loyalty

From a psychological perspective, customer loyalty is defined as: "… a deeply held commitment to rebuy or patronise a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behaviour" (Oliver, 1999, p. 34). When customers are loyal, they manifest positive behavioural responses that align with their loyalty to the company (Athanassopoulos, et al., 2001).

Bowden (2009) proposed that the process of engagement involves understanding how the psychological constructs (i.e., satisfaction, trust, affective commitment) lead to loyalty and repeat customers. Brodie et al. (2011) reviewed the customer engagement literature and demonstrated that two of five fundamental propositions of customer engagement include: (1) interaction between the customer and the organisation post-purchase, and (2) customers as a part of value creation, together with the organisation and other stakeholders. These propositions suggest that the organisation's customers' role goes beyond their role as product purchasers. However, not all customers are willing to collaborate; only customers engaged in a company are likely to collaborate. Through customer engagement, organisations may influence a customer's attachment to the brand. Dick and Basu (1994) suggest the inclusion of relative attitude antecedents such as affection, positive emotions, commitment, and satisfaction can strengthen customer behavioural responses. Attitude antecedents such as feelings of satisfaction are positively identified as related to customer retention and loyalty

(Sim, et al., 2006). Satisfaction is found to engage customers beyond purchase by sharing a positive experience, encouraging others to buy, sharing good experiences, or writing honest reviews (Van Doorn, et al., 2010).

Similarly, emotional attachment and trust influence relationship-building interactions between the customer and the organisation; this results in positive emotional and relational outcomes (Melancon, et al., 2011). Additional behavioural outcomes found from engaged customers include brand advocates and referral agents (Fuggeta, 2012; Kumar, et al., 2010). Therefore, customers with strong customer engagement influenced by casino experiences develop a commitment for future loyalty. The preceding discussion informs the following hypothesis:

H2: Customer engagement is significantly related to customer loyalty towards casinos.

The mediating role of customer engagement

The introduction of new products, such as automated games, have been illustrated to attract casino customers due to its added features that provide casino customers experiences different to experiences with traditional table games. Since these games resemble features of poker (slot) machines, they can appeal to a new market segment and influence playing behaviours (Rockloff, et al., 2016). The game presents an opportunity to develop new customers into regular customers. Casinos aim to convert new customers through positive engagement, as positive experiences result in customer engagement (Ahn & Back, 2018). Automated games features provide experiences that engage customers. For instance, free slot plays activate first-time customers' interest, encouraging them to learn to play and play more often. Such complimentary plays produce a feeling of pleasure as the customer receives something without having to purchase the item. Since engagement outcomes included future purchase behavioural intentions (Ahn & Back, 2018), engaged customers will likely have

positive behavioural responses in the future towards the casino. Hypothesis 3 is proposed because of this discussion:

H3: Customer engagement mediates the relationship between customers' experience with automated games and customer loyalty towards casinos .

The role of social interaction

Turner (1988, p. 13) defined social interaction as "a situation where one actor's behaviours are consciously reorganised by and influence the behaviour of another actor and vice versa". The author has further stated that social interaction is a phenomenon, and that behaviours include overt movements and covert (mental and phycological) processes of an individual. Social interaction is viewed as a situation in which two or more people have social behaviour exchanges and influences with each other. Seeking positive social interaction conforms with the need for belongingness which is among the five categories of human needs proposed by Maslow (1943) under human motivation theory. Belonging is the need for a relationship with other people, including friendship, family, and connection.

Since gambling is viewed as a social activity, social interaction likley motivate engaging in gambling activity. In casinos, social interaction has been identified as motivation for gambling among casino customers. Hagen et al. (2005) found that older adults view gambling as social entertainment and contact. Wong and Rosenblum (2012) mentioned that visitors to Macau and Las Vegas were driven by motivations such as time with family and friends and escaping mundane life. In Australia, gambling with friends and family and socialisation are two common gambling motivations (Francis, et al., 2015). Social interaction has also been emphasised as a strong motivation for customers who play social casino online games (Gainsbury, et al., 2016). Social interaction can be attained within online casino settings through online communities that allow the participants to communicate and interact (Sirola, et al., 2020). However, online gambling has limited other forms of social interaction

that might be found in a casino, such as meeting face to face and interacting with casino employees and other customers.

As social interaction has been identified as a motivating factor, interaction with peer customers and casino employees may influence customers to engage and perform positive behavioural responses towards the casino. Word-of-mouth (WOM) recommendations from other players may influence a customer's decisions in choosing games to play or services to try within the casino. Social interaction with casino employees is also significant since customers' engagement is believed to be enhanced through relationship marketing in the form of services (Hendler & Hendler, 2004; Prentice & King, 2011). Commonly known in casinos as VIP (very important people) hosts, these casino employees are able to introduce casino amenities and activities to customers (Barsky & Tzolov, 2010; Hendler, 2008), which provide more opportunities for engagement between customers and the casino. Social interaction motivations may strengthen the effect of customer engagement towards behavioural responses, such the visiting frequency, WOM, and average spending. This discussion informs the following hypothesis:

H4: Social interaction moderates the relationship between a) customers' experience with automated games and customer engagement and b) customer engagement and customer loyalty towards casinos.

METHOD

Sample

The research was conducted with customers of Australian land-based casinos, where automated table games are offered. Using purposive sampling allows the study to select participants who have the knowledge and direct experience with casino automated games (Etikan, et al., 2016; Rowley, 2014). Respondents for this study were casino members and customers gambling in Australian land-based casinos. The questionnaire was distributed to

the Australian panel. The prospective respondents were screened to 18 years old and over and had gambled in the last 12 months in a casino in Australia. An additional filtering question was added to ensure respondents had played automated table games. A total of 320 usable responses were generated.

Measures

The experience with the automated game was measured by adopting the VICES framework proposed by Rockloff and colleagues (2016); the framework is used to categorise innovative characteristics of automated games. This scale is composed of 23 items, divided into five categories. The VICES scale includes visual and auditory enhancements, the illusion of control, cognitive complexity, expedited play, and social customisation. Visual and auditory enhancement refers to an enhanced gaming sensory environment, which includes enriched graphic display, lighting, and sound to accompany the games. The illusion of control indicates features such as player feedback, the availability of game statistics, and machine control mechanisms, which customers can use to create play strategies. Cognitive complexity refers to the game's complexity; digital features add to the cognitive complexity of automated games with the addition of side bets, having additional information, or access to the game's rules. Expedited play is the ability to faster betting with features linked to games refresh rates, games- down time, speed of game play, and playing several games simultaneously. Social customisation refers to the changing social environment, features such as increased privacy with the omission of dealers or croupiers and the sharing of the player history of other customers. This scale was adapted to suit the experience context in this study, for example, adapting the feature *graphics and animation* under visual/audio enhancement to statement *the automated games have good graphics and animation* to reflect the experience with automated games feature. Respondents were asked to rate their level of agreement regarding the features of the automated games services and were measured using a Likert

Scale (1= strongly disagree to 7= strongly agree). The reliabilities for these dimensions are reported in the next section.

The customer engagement scale was adopted from Hollebeek, et al. (2014). Hollebeek and colleagues (2014) used a 10-point consumer brand engagement scale that included three dimensions: cognitive processing, affective, and activation. Cognitive processing engagement relates to how a customer thinks about the brand (i.e., I think about [brand] a lot when using it). The affective dimension refers to customers feelings towards the brand (i.e., I feel positive when using this [brand]). Activation refers to customers efforts spent within the brand (i.e., I spend a lot of time using [brand], compared to other brands). These scales have also been used in a conceptually related study of casino resorts (Ahn & Back, 2018). Items under cognitive processing (i.e., I think about this casino a lot when I'm visiting or playing in it) and activation dimensions (i.e., I spend a lot of time playing in this casino, compared to other casinos) were reviewed and then excluded from the study as the items under each scale may be misconstrued with problem gambling behaviours. Thinking a lot about casinos or gambling may be indicators of addictive gambling. Of the three dimensions, this study opted to focus on affective engagement, which refers to customers' feelings and happy emotions towards an entity. Three items for affective were included in the measure (i.e., I feel positive when visiting or playing in this casino, this casino makes me happy, and I feel good when I visit this casino). The scales are also in line with customers visiting motivations, such as to enjoy and have fun. Affective items were assessed using a 7-point Likert scale (1= strongly disagree to 7= strongly agree), affective scales generated a Cronbach's alpha of (α) 0.802. Customer loyalty measures are often measured similarly in loyalty research. However, in this casino study, loyalty measures include WOM, visiting frequency, and average spending on casino games, adopted from Prentice and Wong (2015) and Baloglu, et al. (2014). The WOM items refer to the customer's behaviour in sharing their opinions about the casino.

Respondents were asked to rate the item statements based on their level of agreement using a 7-point Likert scale (1= strongly disagree to 7= strongly agree). The Cronbach alpha for WOM was (α) 0.847. Respondents were also asked about the visiting frequency to the casino using a 5-point scale (i.e., daily, a few days a week, a few times a month, once a month, and few times a year). Average spending was measured on their average budget spend on gaming within the casino, categorised into low, medium, and high.

Procedure

The study utilised a quantitative online survey to capture participants' perceptions of the researched constructs that could not openly be observed (Creswell, 2009). The survey responses were collected from online panels common in gambling studies (Rockloff, et al., 2016). The online survey allows flexibility regarding the number of questions asked, the ease of data collection, transmission, and analysis (Fielding, et al., 2017). The questionnaire was first developed, designed, and informed by the literature in automated games, customer engagement, and customer loyalty, which have been previously used in gambling studies (Rowley, 2014). The questions were presented in English, self-explanatory, and a senior casino researcher was consulted to ensure the questionnaire's content validity. Subsequently, the questionnaire was revised to improve content validity. To minimise response bias, some questions were reworded similarly and distributed in other questionnaire sections to test for like responses.

The data collection process began with the creation of an online survey questionnaire through QualtricsXM, a survey platform. Qualtrics was selected due to its ability to convert online responses into accurate data tabulation. There were 320 completed responses, which provided sufficient variety and validity to test the hypotheses (Ghauri, and Gronhaug, 2005 as cited by Rowley, 2013). Of the 320 respondents, 54.1 % were male, 23 % for ages 18-25, while only 8.4% accounts for 56 or more, and 61 % of the respondents held a bachelor's

degree and above. About 34 % of the respondents were single and never married, 65.9% were employed full-time, and 67.2 % earned $60,000 and above. Around 32 % of the respondents prefer electronic table games, and 52 % preferred to play electronic or automated roulette the most. The respondents' demographic information is presented in Table 1.

Insert Table 1

Common method bias

Common method bias was assessed, given data collection using a single source. An unmeasured latent factor (Podsakoff, et al., 2003) was introduced to the measurement model. Following the Common Latent Factor (CLF) procedures suggested by Gaskin (2017), method bias was tested using a chi-square difference test between the unconstrained and constrained model (where the paths from the latent factor to items were constrained to zero). The chi-square test between the unconstrained and zero constrained models is $\chi 2/df = 3.03$ and was significant; a method bias was detected. CLF was then retained in the final CFA model. Model fit for the model with CLF retained was obtained with X2/df =1.870, CFI=0.965, SRMR=0.036, RMSEA=0.052 with PClose=0.350. Factor scores with the CLF were imputed for a casual model and hypothesis testing to ensure the CMB was accounted for (Gaskin, 2016).

ANALYSIS AND RESULTS

Measurement model

Variables in this study made use of existing scales. During the confirmatory factor analyses (CFA), the 23 features did not load on their specific five groupings. Each feature loaded in one group was carefully reviewed during the exploration based on their factor loadings and item statements. Some items were deleted due to loading issues. Three groups were formed instead of five, which were applicable in this study and were labelled as sensory, user-friendliness, and efficiency. Together with the three scales of experience with

automated games and the scales of customer engagement and word of mouth, factor loadings were positive and statistically significant and greater than 0.5 (see Table 2). The alphas suggested that items under each variable measure the same variable (Tabachnick & Fidell, 2014). All variables inferred that the measures satisfactorily met internal consistency. The results of the model fit displayed an X2/df =2.027, CFI=0.952, SRMR=0.041, RMSEA=0.057 with PClose=0.118. The CFA results show that the constructs were acceptable under fit index cutoff criteria in the covariance structure analysis (Hu & Bentler, 1999).

Insert Table 2

Reliability, convergent validity, and discriminant validity were then assessed (see Table 3). Results show that each variable has composite reliability of (CR) of 0.7 and above, passing the recommended threshold of .70 (Hair, et al., 2010). The average variance extracted (AVE) of all variables were above 0.50, indicating adequate convergent validity (Malhotra & Dash, 2011). The maximum share variance (MSV) of all latent factors were below their corresponding AVE. The square root of AVE (which are in bold in Table 3) of each variable shows that the results were greater than the inter-construct correlations. Both MSV and the square root of AVE of each latent factor passed the thresholds; these results indicate discriminant validity (Hair, et al., 2010).

Insert Table 3

Hypothesis testing

Structural equation modelling (SEM) was conducted to examine and test the proposed relationships using IBM SPSS AMOS 26 graphics. The model for the study is presented in in Figure 1. First, the structural model was examined for model fit and showed a good model fit: X2/df =2.810 CFI=0.986, SRMR=0.022, RMSEA=0.750 with PClose=0.032, which was acceptable based on threshold fit indexes suggested by Hu and Bentler (1999). For hypothesis

testing, the direct effect of automated games on customer engagement was examined first. The results of the parameter estimations are shown in Table 4.

Insert Table 4 and Figure 1

The proposed hypothesis H1 projected that a customer's experience with automated games is significantly related to customer engagement. Results demonstrate that customer experience with automated games and customer engagement were positively and significantly different from zero at the $p<0.001$ (two-tailed), with $\beta = 0.345$ for sensory experience, $\beta = .230$ for user-friendliness, and $\beta =0.340$ for efficiency. Consequently, H1 was supported.

H2 proposed a significant relationship between customer engagement and customer loyalty (WOM, visiting frequency, and average spending). The results showed a positive relationship between customer engagement and WOM ($\beta =.871$) at $p<0.001$. with the visiting frequency ($\beta = 0.312$) at $p < .001$, with average spending ($\beta = 0.055$) at $p < .05$. Thus, H2 was supported.

Mediation testing

A mediation test using bootstrapping was conducted to test H3, mediating the effect of customer engagement between customers' experience with automated games on customer behavioural response (WOM, visiting frequency, and average spending). From the results which are shown in Table 5, customer engagement mediated the relationship between sensory features and WOM ($z=0.326$, $p < .01$), user-friendliness to WOM ($z=0.376$, $p < .01$), and efficiency to WOM ($z=0.239$, $p < .05$). Bootstrapping results also show that automated games experience and visiting frequency was supported with sensory features and visiting frequency ($z=0.148$, $p < .001$), user friendliness and visiting frequency ($z=0.171$, $p < .01$), and efficiency and visiting frequency ($z=0.109$, $p < .05$). Sensory features had a stronger indirect effect on customer loyalty through customer engagement.

Insert Table 5

Moderation testing

The moderating effect of social interaction between customers' experience with automated games and customer engagement (H4a) and customer engagement and customer loyalty (H4b) were tested. Results (see Table 6 and Figure 2) show that social interaction with sensory features and user-friendliness do not positively and significantly affect customer engagement. Meanwhile, the interaction between visiting purpose and user-friendliness had a positive but not significant effect; thus, H4a was not supported. Social interaction with customer engagement showed no significant regression estimates on WOM and average spending. There was a positive and significant moderation effect on customer engagement and the visiting frequency(β 0.753 $p<.001$). Hence, H4b was partially supported.

Insert Table 6 and Figure 2

DISCUSSION

Drawing from the concept of experiential marketing, this study examined how customer experience with casino automated games can influence customer loyalty through customer engagement. The research used sensory, user-friendliness, and efficiency scales derived from the VICES framework of automated games to represent experiences with automated games. These features represent the technological and innovative advances added to automated games. This study also examined the mediating role of customer engagement in the relationship between experience with automated games and behavioural responses. The role of social interaction as a moderator between customer engagement and loyalty was also tested. For this research, customer loyalty included WOM, visiting frequency, and average spending, consistent with those used in casino studies to represent gambling behaviours and customer loyalty.

Automated game experience and customer engagement

Experience with automated games is significantly related to customer engagement. The findings suggest that the more positive the experience with automated games, the more they were engaged. A stronger relationship was found with sensory features represented by visual and auditory features that the automated games provided. These findings show that customers' visual and auditory experiences with automated games stimulate their affection and further engagement with the casino. The findings that sensory features affect customer engagement is consistent with the findings of multi-dimensional brand experience as an antecedent of multi-dimensional engagement (Ahn & Back, 2018; Brakus, et al., 2009). In addition, the findings align with Pine and Gilmore's (1998) suggestion to create themes for experience and stimulate human senses. Both experiences with user-friendliness and efficiency features were found to have a positive relationship with customer engagement.

Additionally, the results of this research connect to Rockloff et al.'s (2016) mixed-method study where players highly nominated the automated game features of visual/ audio enhancements and expedited play as key features. User-friendly features (faster games turnover, less downtime, and computerised calculations of winnings) are important for customers and increase engagement. Experience with efficient features (control over the game mechanism, additional side bet and mini-games, and progressive jackpots) shows that customers have the illusion of control over their games. The feature enhances the overall gambling experience and promotes further development engagement. Automated games' features, as compared to traditional games, create different gambling experiences for customers. Customers may prefer or are attracted more towards their experiences with automated games rather than traditional games. Conversely, automated game features that are appealing engage customers with the casino.

Customer engagement and customer loyalty

The relationship between customer engagement and customer loyalty was tested. The results show that customer engagement was partially related to customer loyalty, especially WOM and visiting frequency. The results indicate that affectively engaged customers who feel happy and are positive about the casino appear to project positive behavioural responses. These customers are more likely to spread positive word of mouth about the casino and repeat visitation, although it did not appear to affect gambling expenditure significantly. Of the three behavioural responses, customer engagement had the strongest effect on WOM about the casino, indicating that emotionally engaged customers were more likely to say positive things about the casino. Results with customer engagement and loyalty were consistent with other research findings (Ahn & Back, 2018; Hollebeek, et al., 2014).

Mediation role of customer engagement

The relationship between customers' experience with automated games and customer loyalty was tested through the mediation of customer engagement. Experience with automated games indirectly affects WOM and visiting frequency through customer engagement, with a stronger effect on WOM. Based on the results, this research demonstrates that customer engagement is an effective mediator between customers' experience with automated games experience and customer loyalty. These results were demonstrated in other studies (Ahn & Back, 2018) and support the claims in the literature related to the consequences of customer engagement. The indirect effect of customer experience with automated games on WOM and frequency of visits indicates that customers' positive experiences strongly and positively influence customer loyalty. However, the positive indirect effect means experiences should facilitate engagement before resulting in positive loyalty. Affectively engaging customers who develop positive feelings and emotions such as enjoyment, happiness, and positivism are more likely to project positive behaviours based on their experiences with automated games. Such behaviours towards the casino include

frequent visitation and sharing positive WOM. The outcomes of customer experience with automated games form their decisions for future visits and WOM participation. Such prior experiences will influence casino gambling intentions (Lee, 2012).

The result that the indirect effects of automated game experience have a significant effect on average spending suggests that experiences with automated games do automatically influence (increase or decrease) customer average budget spend. These findings have implications for casino marketers and researchers, and it illuminates an automated games relationship with average bets. Increased bet speed is seen to be a concern for problem gamblers (Rockloff, et al., 2016). However, this study's results do not support suggestions from problem gambling studies that automated table games will encourage increased bets or betting speed.

Moderation relationship

The findings of this study do not support social interaction as a moderator between experience with and customer engagement. Social interaction as a moderator between customer engagement and behavioural responses, however, was partially supported (see Table 6 and Figure 2). Social interaction does not strengthen the relationship between experiences with automated games and customer engagement. Similarly, social interaction does not strengthen the relationship of customer engagement with WOM and average spending. Social interaction, however, does moderate the relationship between customer engagement and frequency of visits, which was expected. Social interaction or socialisation is considered a visiting purpose or motivation for casino visitors or gamblers (Francis, et al., 2015; Wong & Rosenbaum, 2012).

Additionally, customers who are affectively or emotionally engaged with casinos will likely engage in repeat visitations (Coetzee & Pourfakhimi, 2020). Although the findings did not reflect the hypotheses proposed, it presents implications for researchers, casino operators, and marketers. The results suggest that despite customers visiting the casino for social interaction,

this interaction does not necessarily boost experiences with automated games to facilitate customer engagement or customer engagement leading to positive loyalty.

IMPLICATIONS

Drawing from the concept of the experience economy (Pine & Gilmore, 1999) and experiential marketing theory (Schmitt, 1999; Brakus, et al., 2009), this study examined the relationships between experience with automated games, customer engagement, social interaction, and customer loyalty. The findings of this research have implications for customer loyalty and customer engagement, and motivation research. The findings may also provide some guidance for casino marketers, land-based casino operators, especially in applying technology on casino games offerings, and the Australian gambling authorities.

Theoretical implications

The study adopted the VICES framework (Rockloff, et al., 2016) for automated games as indicators of experience with automated games and operationalised it into sensory features, user-friendliness and efficiency. This process reinforced the scale's validity and expanded it into a marketing and consumer research domain rather than problem gambling. The study contributes to the customer engagement literature by using product experiences, or automated game experiences (specific to this study), as an input variable that enhances customer engagement within a casino context. Contributions have also been made to experiential marketing, extending product and service experiences into casino management. The relationship between customer's engagement and loyalty has rarely been tested within casino research. The study findings contribute to gambling research by providing a new perspective on how customers engage with the casino by providing an innovative gaming experience. The research enriches the customer loyalty research by including visitation frequency and average spending in games as a behavioural response. Testing the role of

social interaction as visiting purpose in customer engagement and loyalty contributes to motivation studies by extending this construct to gambling research.

Practical implications

The current study has practical implications for casino practitioners. The rise of alternatives to casino gambling, such as online casino games that provide convenience, has contributed to an intensification of competition within the casino industry. The competitive environment creates an even greater emphasis for casino marketers to engage and retain loyal customers. The current study offers an additional perspective for casino marketers and operators to engage with their customers and enhance customer loyalty through casino gambling experiences. This perspective suggests viewing the gambling experience from the casino games that customers play, specifically how they engage customers with new games offered and the casino. Based on the findings, experiences with automated games are an influential aspect of customer engagement in casino gambling. It offers insights into the application of marketing strategies by casino marketers and land-based casino operators.

Casino marketers and land-based casino operators would benefit from understanding how the effect of automated games on the gaming floor shapes customer experiences, specifically, how the features of automated games facilitate customer engagement. Casino operators could identify automated casino games that customers prefer and positively alter the customer's gambling experience and use this information within automated game purchasing decisions. New offerings of casino games create diversified game options and create different customer experiences. While investing in new gaming machines is costly, operators should consider games with sensory features, such as player-in-control features, faster play, and other features that enhance the gaming experience. A land-based casino could collaborate with casino game designers and suppliers to create new games that provide better gambling experiences. Further research into what game features emotionally engage

customers is likely to reveal features that can be incorporated into game design. Similarly, casino marketers could continue to incorporate casino games into gambling experiences, such as gaming competitions and promotions within the casino.

Currently, automated games present opportunities in situations where health measures are in place in hospitality services. In the COVID-19 pandemic, where social and physical distancing is advised in public places such as casinos, there is motivation to shift behaviours from playing table games to playing automated or electronic table games. It also provides an opportunity to introduce automated games to customers and increase the popularity of this form of gambling. Marketers could also pay greater attention to advertising new casino automated games on websites and within the casino. Advertising could focus on what these automated games can offer or features that differ from other games to inform and attract customers. New games and machines are often expensive investments and take up floor space; awareness of new games can boost the popularity of these games.

Drawing from the positive relationship between customer engagement and behavioural responses, operators and marketers should continue to develop programs that encourage engagement with the games and casino's other products and services. Casinos could create review and comment or feedback platforms, and this approach can encourage customers to use the platform to communicate with casino and other customers about their experiences. In this way, operators and marketers will be informed with feedback to improve services based on customers' suggestions.

Lastly, on the moderating role of social interaction or visiting the casino for socialisation, marketers and operators could initiate more social activities and opportunities to encourage visitation. Social interaction opportunities could include specific areas (i.e., lounge areas, sitting areas) within the casino where customers could socialise with others after gambling. Other social activities or events might include non-gambling related games (i.e.,

free bowling areas, pool/billiard tables) or scheduled free events (i.e., one-week free health consultations table within the casino). These social interaction activities outside gambling activities (playing games) could encourage increased casino visitation by engaged customers.

LIMITATIONS AND FUTURE RESEARCH

This study has limitations that may have influenced the outcomes. First, the study was conducted through an online survey of Australian casino customers who have played in casinos in Australia in the 12 months before the study. The generalisability of the findings is therefore limited to Australia. Equally, the sample size of this study was not large; having a larger sample size may improve statistical analysis. However, the findings could be transferable to similar studies in other casinos that offer automated games.

Using the VICES framework may not represent a holistic, automated games experience; other measurements could be explored. Using a mixed-methods approach may provide a more holistic view of customers' experience and behavioural outcomes. The design of a cross-sectional study may influence the relationship between the proposed predictor and outcome variables. A longitudinal design is recommended for future studies to understand the relationship between customer experience and behavioural responses. Customers' socio-demographic variables such as membership level, age, and gender may provide more insights into social interaction.

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Table 1. Demographic characteristics

Variable		**Frequency**	**%**
Gender	Male	173	54.1
	Female	146	45.6
	Other	1	0.3
Age	18-25	74	23.1
	26-35	109	34.1
	36-45	77	24.1
	46-55	33	10.3
	56 or more	27	8.4
Education	Primary school	1	0.3
	High school	53	16.6
	Trade certificate	36	11.3
	Diploma, Advanced diploma	35	10.9
	Bachelor's degree	112	35.0
	Graduate diploma	30	9.4
	Postgraduate including Masters, PhD	53	16.6
Marital status	Single (never married)	108	33.8
	Married without children	46	14.4
	Married with children	116	36.3
	Widowed	2	0.6
	Divorced/Separated	10	3.1
	De facto	38	11.9
Annual income	Less than $20,000	22	6.9
	$20,000- $39,999	30	9.4
	$40,000-$59,999	53	16.6
	$60,000-$79,999	63	19.7
	$80,000-$99,999	61	19.1
	$100,000 and above	91	28.4
Occupation	Employed full-time	211	65.9
	Employed part-time	49	15.3
	Employed casual	6	1.9
	Unemployed	18	5.6
	Home duties	11	3.5
	Student	9	2.8
	Retired	16	5
Preferred games played when gambling	Traditional (non-automated) table games	103	32.2
	Automated / Electronic table games	103	32.2
	Poker Machines	113	35.3
	Other	1	0.3
Preferred/ played automated games the most	Electronic Roulette	167	52.2
	Electronic Baccarat	25	7.8
	Electronic Blackjack	63	19.7
	Electronic Big Wheel	55	17.2
	Electronic Sic Bo	9	2.8
	Other	1	0.3

Table 2. Confirmation factor analysis results

Items	Factor loading	Cronbach's alpha (α)
Sensory		0.828
The automated games have good graphics and animation	0.833	
The automated games have good multiple displays	0.850	
The automated games have effective use of in-game sound effects	0.747	
User-friendliness		0.875
The automated games allow control over the game mechanism (e.g., choosing when the game starts or dice rolls)	0.691	
The ATGs allow me to personalise the gaming environment	0.766	
The ATGs allow progressive jackpots	0.774	
Playing automated games allow me to choose between different games from a single location	0.705	
The automated games provide additional mini-games	0.831	
The ATGs allow me to have additional side bets and have these tracked by the computer	0.571	
The ATGs allow me to be able to play multiple games simultaneously	0.672	
Efficiency		0.754
The automated games allow the computer to calculate winnings and losses	0.578	
The automated games have less downtime between games	0.828	
The automated games have faster games	0.841	
Customer engagement (CE)		0.802
I feel positive when I visit/play in this casino	0.667	
Visiting /playing in this casino makes me happy	0.665	
I feel good when I visit/play in this casino	0.797	
Customer loyalty		0.847
I would recommend this casino to other people	0.762	
I tell other people positive things about this casino	0.836	
I tell other people about my experiences in this casino	0.819	

Table 3. Results of correlations, CR, and AVE among study variables

Variables	**CR**	**AVE**	**MSV**	**SF**	**1**	**2**	**3**	**4**
1	0.832	0.518	0.473	**0.790**				
2	0.876	0.504	0.500	0.688***	**0.710**			
3	0.762	0.518	0.500	0.651***	0.707***	**0.720**		
4	0.812	0.591	0.576	0.683***	0.667***	0.623***	**0.769**	
5	0.849	0.652	0.576	0.539***	0.574***	0.691***	0.759***	**0.808**

Notes: 1= Sensory; 2= User-friendliness; 3= Efficiency, 4= Customer engagement, AE: 5=Customer loyalty CR: Composite reliability, AVE: Average variance extracted, MSV: Maximum shared variance. The values in bold are the square root of the average variance extracted. ***p ≤ 0.001, Correlation is significant at the 0.001 level (2-tailed).

Table 4. Results for the proposed relationships

Variables	Engagement	WOM	Visiting Frequency	Average Spending
Main effects				
1) Sensory	.345**			
2) User-friendliness	.230**			
3) Efficiency	.340**			
4) Engagement		.871**	.312**	.055*
R^2	.70	.03	.17	.76

Parameter estimates are standardised.
** p < .001, * p<.05

Table 5. Results of mediation testing (Bootstrapping).

Mediation effects	Bootstrapping results
Sensory - Engagement-WOM	**.326****
Sensory - Engagement – Visiting frequency	**.148***
Sensory - Engagement - Average spending	.029
User-friendliness- Engagement -WOM	**.376****
User-friendliness - Engagement - Visiting frequency	**.171***
User-friendliness - Engagement - Average spending	.034
Efficiency- Engagement -WOM	**.239***
Efficiency- Engagement - Visiting frequency	**.109***
Efficiency- Engagement - Average spending	.022

Notes: **p < .01 * p < .05

Table 6. Results of moderation testing.

Variables		Moderation interaction	Estimate
Customer engagement	<---	Social interaction x Sensory	-.020
Customer engagement	<---	Social interaction x User-friendliness	.010
Customer engagement	<---	Social interaction x Efficiency	-.004
Word-of-mouth	<---	Social interaction x engagement	-.009
Frequency of Visit	<---	Social interaction x engagement	**.161****
Average Spending	<---	Social interaction x engagement	.059

Notes: ** p < .010

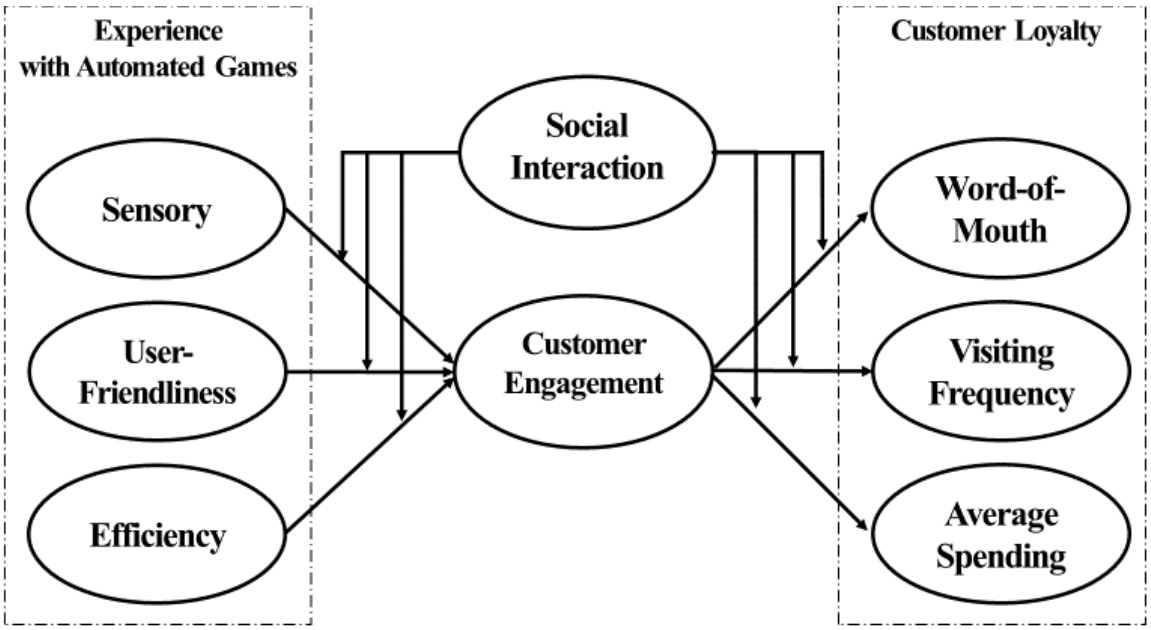
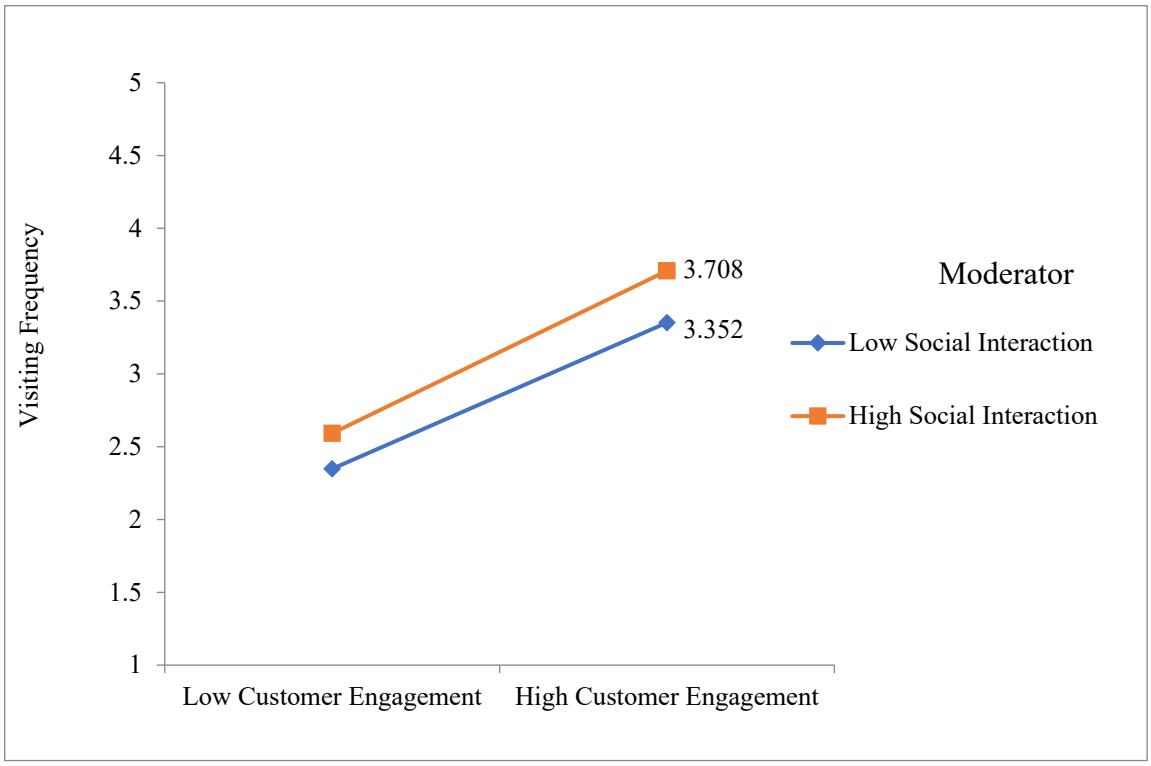


Figure 1. The model for the study



Social Interaction strengthens the positive relationship between Customer Engagement and Visiting Frequency.

Figure 2. Moderation effect customer engagement and visiting frequency