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The Casino Environment: Behavioral Strategies and Societal Implications

Kylee A. Healy
Student
Niagara University
khealy4@mail.niagara.edu

Joseph D. Martino
Student
Niagara University
jmartino3@mail.niagara.edu

Susan E. Mason Professor of Psychology Niagara University sem@niagara.edu

ABSTRACT

Casinos are complex establishments that apply a multitude of psychological strategies and business concepts that have been successfully employed across other contexts. This industry commentary article describes the methods casinos use to attract and retain customers, encourage them to gamble, and ensure profits for the casinos. A review of the literature reveals potential benefits and risks to individuals and communities. Casinos operate as legal gambling entertainment venues using psychological strategies to increase customer engagement. While they provide economic benefits to communities, they may also pose risks to individuals susceptible to gambling addiction.

Keywords

Psychology, casinos, building designs, online gambling

INTRODUCTION

Although there have been many forms of currency used throughout history, in modern America people are enthralled with the concept of obtaining money. Casinos have taken full advantage of the insatiable desire for money. The bright flashing lights, dark windows, and loyalty benefits are purposefully designed to keep gamblers playing longer, so the casino can earn additional profit at the cost of the consumer (Lam et al., 2011). Some individuals who become captivated by the world of casinos suffer the consequences of a gambling addiction, which can plague the entire family (Robb-Dover, 2019). However, although there are risks for individuals living in areas where casinos are located, there are also potential benefits for communities (American Gaming Association, 2024; St-Pierre et al., 2014). Casinos provide employment opportunities, and casino taxes can be used to fund local projects. The purpose of the present commentary is to describe the psychological strategies that casinos use to influence the behaviors of their patrons and to assess the value of a casino to the surrounding community.

Casinos use many techniques to ensure customers spend a lot of time and money in the building, but these strategies do not work equally well on everyone. The strategies are less successful, for example, on those who do not drink to excess and those who are more risk-averse (Tyszka et al., 2015). With the increase in popularity of online gambling, it is important to also understand the potential impacts of this alternative method of betting. Additionally, the recent legalization of sports betting has revealed new opportunities for businesses like casinos to benefit financially.

INDUSTRY CONTENT

A casino is a business that relies on consumers spending money through games of chance. The calculations behind the house advantage that casinos use are straightforward, though misleading. As a result, they have a limited impact on the decisions made by casual gamblers. This is exemplified by the common misconception that slot machines are "fair" and involve minimal risk (Salaghe et al., 2020). There are regulations placed on casinos that limit the profit a casino can make on a machine, but that does not generally affect the decisions of the gambler. In most instances, people visit casinos for the overall experience and to enjoy the thrill associated with potentially winning a large sum of money. To encourage gambling, casinos use a variety of psychological strategies.

DISCUSSION

Design of Casinos

Though modern designs tend to be more open and include natural lighting, a patron entering an older casino is generally greeted with a dimly lit space, refreshingly cool air, a low ceiling, maze-like walkways, and a lot of flashing lights (Alvarez, 2025). This environment has been portrayed in movies, especially in casinos in Las Vegas, Nevada. Much of the design was carefully constructed by a former gambling addict who took his knowledge of the casino and turned it into a valuable layout. The ultimate purpose of the layout is to make the customers feel as comfortable as possible and remove any reminders of why they should leave (Lam et al., 2011). Clocks would directly interfere with this intended purpose, which is why they are strongly discouraged in the casino layout. Without reminders about the time, customers who find themselves enchanted by the casino may lose track of time and continue playing far longer than they had planned. Consistent with this idea, casinos will often have windows covered with a dark tint that prevents natural daylight or moonlight from entering the casino. Once an individual enters the building, the brightness remains constant, which inhibits one's ability to tell what time of day or night it is (Mullennix, 2023). Beyond these immediately observable features of the design of the casino, there are other factors that are easily overlooked.

Within the casino, customers have access to rooms, food, drinks, bathrooms and essentially everything they need to spend multiple days in the same building. A possible distractor from the enticing casino environment is the necessary human function of using the bathroom. This is not ignored by casinos, and their placement is deliberate. Bathrooms are located centrally within the building, so that one must go deeper into the casino to access the facilities. By doing this, casinos are forcing customers to walk by the flashing lights of exciting games that they may have avoided otherwise. Bars and restaurants are similarly placed in the center of the casino. This discourages individuals from leaving the building to find food or drink. Furthermore, those who simply come to dine are encouraged to stay and play a few games before they leave the casino. Though the placement of restrooms, bars, and restaurants may seem random, it is a well-planned way to take advantage of necessary human functions and increase a casino's profits (Alvarez, 2023).

The design of a casino goes far beyond the physical details of the floorplan. Game design is another important aspect of the business. Game design strategies must fall within legal and regulator-approved practices. To ensure fair play, casinos are regulated by gaming control boards, which oversee licensing, audits, and enforcement of regulations (Regulatory Management Counselors, 2025).

Like many other large businesses, casinos have gone cashless. Going cashless is promoted as more convenient for the customer, but there is a deeper reason why this approach is employed (Stutz, 2021). Many popular casino games use poker chips, which create a level of separation between gamblers and the actual money they are betting. What began as familiarly colored poker chips, with each color representing a different monetary value, has transformed into a plastic "player's" card. Swiping a card at a slot machine instead of directly inserting physical money or tokens that were purchased removes the reminder of how much is being spent. Rather than running out of tokens and leaving the casino or going to purchase more, the customer can now sit and play with seemingly limitless money (Freundlich, 2021). Small details like this can be misconstrued by the customer as having been done to make their experience more enjoyable. These player's cards are used for much more than just paying for another round at a slot machine. Each card is assigned to an individual customer, which allows the casino to openly collect data about the customer's actions and decisions. Data can be collected on which games each customer prefers to play and how often. An individual customer's eating and drinking habits can also be monitored. With player's cards, a casino can effectively ensure their customers will spend more money while the casino collects vital information about each individual in the process (Koew, 2024). In addition, player's cards present casinos with the opportunity to offer loyal customers further benefits that are intended to encourage even more spending.

Reward Programs

A casino's restaurant and bar not only bring customers in, but they also provide incentives to loyal customers. Many casinos offer reward programs that encourage individuals to stay longer and spend more money. In movies and other media portrayals of casinos, smiling customers are presented with complimentary drinks while at a poker table or playing brightly lit slot machines. These "free" drinks are generally offered to customers who have spent a set minimum amount of money. Those who spend more are offered more refills. Beyond the drinks, regular customers can enroll in rewards programs that allow them to acquire "points," which can be redeemed for a free meal. Although this sounds like a great benefit that comes from joining a rewards program, individuals often lose much more money than the reward is worth. For example, a casino may offer a free dinner, or a meal from the buffet, if a customer earns 500 points, but the points are earned by spending money. Customers who are offered this incentive interpret it as a benefit because they believe they would spend the money regardless (Sramek, 2023). However, customers are motivated to spend more money to earn more points to acquire a "free" meal. Once the minimum point value is reached, the points are redeemed for a complimentary meal that might have otherwise cost around \$25. The unfortunate reality in this situation is that the customer spends more money than the meal is worth (Hollingshead & Davis, 2021). Casinos are not losing money by offering these programs. On the contrary, reward programs tend to benefit the casino's bottom line. It should be noted that loyalty and reward programs are not unique to casinos. In fact, loyalty programs are growing in popularity across the broader consumer economy. The average U.S. consumer is enrolled in 15.5 such programs (Crouch et al., 2024).

Negative Aspects of Casinos

As businesses, casinos are very efficient at acquiring a profit, but their techniques can result in negative outcomes for susceptible customers. Casinos provide the perfect environment for gambling addicts to spend their money, without realizing the negative side effects of their actions. The exciting environment, along with occasional or novel players crowding the floor, allows people with an addiction to blend in and be encouraged to continue to bet more money. Problem gambling is characterized by certain behaviors that resemble a physical addiction to a substance. One of the key indications of a gambling addiction is the inability to stop. Betting becomes a necessary part of an individual's day, making it difficult for them to control their behavior despite the negative consequences. Because casino games have a built-in house advantage, playing longer does not increase one's chances of winning, contrary to the beliefs of many gamblers. In fact, as individuals play longer, they are likely to lose money at a much faster rate than those who limit the total amount they are willing to bet on a game. As the addiction worsens, problem gamblers may resort to selling possessions and spending money that they simply do not have. Lamentably, family relationships often suffer due to these actions, which may cause the addiction to increase in intensity. This series of events can lead to negative repercussions such as isolation, depression, and even suicide. Clearly, the strategies used by casinos can be very dangerous, affecting many more people than just those who walk through the tinted doors into the enticing room of potential winnings (Robb-Dover, 2019).

There are several specific characteristics of individuals that increase their likelihood of becoming gambling addicts (Moreira et al., 2023). For example, individuals who were previously addicted, or are actively addicted, to drugs are more likely to become problem gamblers. Those with certain mental health conditions, including schizophrenia, attention deficit hyperactivity disorder, and antisocial personality disorder, have also been found to engage in problem gambling. In addition, studies have indicated a correlation between individuals with a lower IQ and problem gambling tendencies. Based on these factors, a casino presents a dangerous environment for these individuals, who may have originally been satisfied participating in a form of low stakes gambling such as buying lottery tickets. Betting large amounts of money, with the hopes of winning big, presents an environment that provides the possibility of feeling a huge sense of reward. This potential for reinforcement explains the biopsychological basis for why gambling can become so addictive.

Biopsychological Basis of Gambling

Reward and punishment, two key factors of operant conditioning, are vital to understanding why people gamble. The research conducted by Pavlov regarding classical conditioning influenced the research of B. F. Skinner on the topic of operant conditioning. The basic idea behind operant conditioning is that when our actions are followed by a positive reinforcement (something positive added) or a negative reinforcement (something negative taken away), we tend to repeat the behavior that preceded the reinforcement. A similar concept is seen with positive punishment (something negative added) and negative punishment (something positive taken away), which eventually result in the reduction or complete extinction of the behavior that preceded the punishment. Studies have shown that the games commonly found in casinos provide a sense of reinforcement or reward, even when gamblers are not actually winning. For example, individuals will repeat a behavior that previously resulted in a win. In a casino, this is displayed as customers continuously pulling the arm of a slot machine, long after they experienced a win (Delfabbro et al., 2023). A closely related idea is the concept of a "near miss," where individuals do not need to win to attain a positive feeling that reinforces their behavior. As a player anticipates the possibility of

winning, certain hormone levels increase within the brain and body. The resulting arousal causes a multitude of physical reactions that are very similar to those experienced after a win. The combination of expecting a win, and experiencing the same emotions as winning, results in the individual being rewarded to play again, in hopes of successfully achieving the final goal. It is also important to note that the social setting of the casino allows individuals to experience similar emotions when others win (Anselme & Robinson, 2013). Witnessing other people win, or come close to winning, can impact individuals' perceptions of their own chances of winning.

Given the strategies employed by casinos and the prevalence of gambling addiction, one might question why casinos are not more popular and widespread. It is because there are traits that make individuals resistant to casinos' efforts to have customers play longer and spend more. People who are averse to risk, for example, are much more likely to avoid high-risk games and may avoid casinos entirely. An understanding of statistical chance can influence one's thought processes and behaviors regarding gambling as well. Generally, there is the misconception that your chances of winning increase as you continue to gamble, but that is not the case. With popular games such as slot machines, there is a consistent chance of winning or losing with each play. Because of a built-in house advantage, players have a greater chance of losing than winning, and that is true from the first play to the last.

Alcohol is a key reason why a risk-averse individual might become willing to bet higher and spend more time in the casino. Due to the social and biological effects of alcohol, and the resulting decreased inhibition to risk, individuals are more likely to place large bets and not consider the full consequences of their actions. The social setting must also be taken into consideration, especially because people are more likely to drink more when in the presence of other people drinking. Unfortunately for the consumer, this increases the amount of alcohol consumed and the amount of money spent. Another important consideration is that individuals with a gambling addiction are likely to have personalities vulnerable to addiction, so problem gamblers are at an increased risk of becoming alcoholics. Given these factors, a casino can be a very dangerous environment for individuals who have addictive personalities.

Socialization is another factor that encourages people to remain at the casino, as well as drink alcohol. This factor may be more relevant to older generations because younger generations are more likely to meet their peers in bars and clubs or through social media. For older people, a casino can become a familiar, comfortable environment with very few physical demands. From simple slot machines to more complicated card games such as poker, most casino games can be played while sitting down and enjoying a drink. This provides older individuals with the opportunity to spend time with other people and experience the emotions of excitement and anticipation (Hope & Havir, 2002). Given these benefits, it is not surprising that some individuals become addicted to not only the gambling aspect of the casino, but also the social interactions provided. To participate in these interactions, gambling is a necessary aspect. Therefore, players continue gambling, not only because they hope to win money, but because they want to have positive interactions with those around them. As places to socialize, casinos can be seen as having a positive impact on members of the community, as long as those visiting the casinos can guard against the potential risks.

Positive Aspects of Casinos

In addition to providing customers with entertainment and the opportunity for socialization, casinos have been shown to be beneficial to the surrounding community and the individuals who reside near them. Due to the large economic impact that casinos have on communities, they are

often welcomed and supported with tax breaks. To run such large and multipurpose buildings, hundreds of jobs are created that provide the possibility for advancement, regardless of experience. Additionally, because of their entertainment activities, casinos bring tourists to otherwise unlikely tourist destinations. The clearest example of this is the extreme growth of Las Vegas. In the early 1940s, Las Vegas was barely a developing city. Now, it is known worldwide as the place to go to gamble and engage in other potentially reckless activities (Smith, 2023). Atlantic City, New Jersey, is one of the few regions that has benefited from casinos on a similar scale to Las Vegas. However, the economic benefits can be observed in less densely populated areas as well. Local businesses that surround casinos can benefit from the increase in tourist traffic. It is important to note, though, that most casinos have restaurants, hotels, and entertainment offerings, so businesses that provide these services face competition. Casinos profit the most from people who remain in the building for a longer period of time, so they are not encouraging customers to leave. However, there is the potential for an increase in customers to a region, which could benefit both the casino and local businesses. This symbiotic relationship can be demonstrated with a focus on the number of people who are employed by the casino. The more money people in a region earn, the more they will have to spend at other establishments, such as gift shops and grocery stores. Although casinos may dominate the flow of money within a region, overall they have been shown to benefit local communities (Scavette, 2022).

Online Gambling

With the rapid development of the digital age over the past few decades, casinos and gambling have expanded far beyond brick-and-mortar buildings. Online casinos, which primarily operate through computer and phone applications with brightly colored icons, are increasing in popularity at an astounding rate. Recognizing the potential profit that comes from providing people with gambling options in the comfort of their own homes, it is not surprising that many large casinos immediately took advantage of this opportunity. As mentioned previously, casinos aim to make customers as comfortable as possible to encourage them to spend more money. Ultimately, providing people with their favorite games in a pleasant, comfortable, and enjoyable environment seems like the perfect situation to earn a financial gain as a casino. Some online games have been found to be "safer" from the statistical probability standpoint due to betting caps and finite outcomes (Kim et al., 2017). Nevertheless, even relatively safe games can have hidden dangers.

One factor that is often overlooked when comparing casinos and online gambling is that they both have methods to reduce the connection between customers and their hard-earned money. As discussed earlier, casinos use player cards rather than cash. In online gambling, a player makes an account through an app or a website and then provides credit card information. Once that is done, the player is not given any other reminders that they are gambling with real money. Instead of gambling with the sense that they are losing money, they bet as if they were playing a video game that uses fake currency. This removes yet another level of inhibition when it comes to gambling, and it is likely to be detrimental to the customer's bank account. As with casinos, online gambling provides an outlet for gambling addicts to feed their addictions. An additional danger associated with online gambling is that family members are at a disadvantage because they are not able to observe some of the key indications that someone has a gambling problem (Gainsbury, 2015). A key symptom of a gambling addiction is spending an unhealthy amount of time at a casino. However, with online gambling, addicts do not actively display this clearly identifiable behavior. As online gambling has been gaining popularity, recently passed legislation has expanded the offerings of gambling opportunities on the internet.

Sports betting has become legal in many countries and has resulted in this previously illegal activity gaining a concerning amount of popularity. Mental health professionals who work with problem gamblers have become aware of the dangers of this new form of online gambling. Although it appears that sports betting is fair, it operates under similar premises to casinos with their house advantage. Sports betting companies, such as DraftKings, account for the possibility that some individuals will win money, but at the same time the companies profit from the bets. Sports betting and other forms of online gambling are similar in that they all provide an environment that increases the likelihood of problem gambling behaviors developing. Unlike most online gambling, sports betting has become a relatively social game, with people forming teams and working together in the attempt to win more money. Fantasy football leagues are just one example of this social betting that is sweeping the country. The National Football League has millions of fans around the world, which provides a new market for the gambling industry. Individuals who may have never considered entering a casino are now able to engage with a game that they love and socialize with others for a small price (Sternlicht & Sternlicht, 2023). Within the next few decades, research will undoubtedly determine the different impacts that this form of gambling may have on individuals, compared to casinos.

CONCLUSIONS

The research literature on casinos and their customers reveals a complex relationship between these large establishments and the individuals who frequent them. Psychological strategies employed by casinos can lead to financial gains for the casinos, but they create a context where some individuals are vulnerable to the negative aspects of gambling. While there are potential risks to individuals, there is also the potential for communities to see positive impacts on their local economies. The positive and negative aspects of casinos are often overlooked by consumers, who are drawn to the allure of the gaming environment.

Sports betting and other types of online gambling are still developing and will undoubtedly continue to increase in popularity. Engaging with these platforms is a type of individual entertainment that can be enjoyable, but also risky. It is important for customers to be educated about the financial risks and to understand the biopsychological factors that contribute to the feelings experienced by individuals while gambling. Casinos and online gambling can provide very exciting experiences for players, and those players who are aware of the psychological factors involved can participate in ways that reduce the chances of serious negative consequences.

On a final note, many people appreciate the entertainment benefits of casinos, but they should also be aware of the potential dangers. There are countless stories of individuals who have fallen victim to various forms of gambling addiction and not only lost an unimaginable amount of money, but also destroyed family relationships. In recognition of the potential risks to individuals, the American Gaming Association (2025) has committed significant funds in support of responsible gaming initiatives. Furthermore, the National Council on Problem Gambling (NCPG) operates a helpline (1-800-GAMBLER) for problem gamblers (https://www.ncpgambling.org/help-treatment/). The NCPG helpline disclaimer clarifies that it is not designed to handle emergency situations. Rather, the helpline connects individuals with local resources that can assist in reducing gambling-related harm.

References

- Alvarez, L. (2023, July 24). Exploring the purpose and strategy behind casino architecture. *Amazing Architecture*. <a href="https://amazingarchitecture.com/articles/exploring-the-purpose-and-strategy-behind-casino-architecture#:~:text=The%20Layout%3A%20A%20Maze%20of%20Excitement&text=For%20the%20most%20part%2C%20the,stay%20longer%20in%20the%20casino.
- Alvarez, L. (2025, February). The role of light and space in casino design. *Amazing Architecture*. https://amazingarchitecture.com/articles/the-role-of-light-and-space-in-casino-design
- American Gaming Association (2024, August 28). American Attitudes Toward Gaming 2024. https://www.americangaming.org/resources/american-attitudes-towards-gaming-2024/
- American Gaming Association (2025). Responsible play. https://www.americangaming.org/responsibility/responsible-play/#investing
- Anselme, P., & Robinson, M. J. (2013). What motivates gambling behavior? Insight into dopamine's role. *Frontiers in Behavioral Neuroscience*, 7. https://doi.org/10.3389/fnbeh.2013.00182.
- Crouch, E., Eppler, B., Taylor, L., Mühlenbein, C., & Hearne, E. (2024, December 9). Loyalty programs are growing—so are customer expectations. Boston Consulting Group. https://www.bcg.com/publications/2024/loyalty-programs-customer-expectations-growing
- Delfabbro, P., King, D., & Parke, J. (2023). The complex nature of human operant gambling behaviour involving slot games: Structural characteristics, verbal rules and motivation. *Addictive Behaviors*, 137, 107540. https://doi.org/10.1016/j.addbeh.2022.107540.
- Freundlich, K. (2021, February 24). Casinos control much more than you think. Morris Psychological Group. https://morrispsych.com/casinos-control-much-more-than-you-think-by-kenneth-freundlich-ph-d/.
- Gainsbury, S. M. (2015). Online gambling addiction: The relationship between internet gambling and disordered gambling. *Current Addiction Reports*, 2(2), 185–193. https://doi.org/10.1 007/s40429-015-0057-8.
- Hollingshead, S., & Davis, C. (2021). An Integrated Thesis Examining the Influence of Casino Loyalty Program Membership on Gamblers' Attitudinal and Behavioural Loyalty (thesis). Retrieved 2023, from https://repository.library.carleton.ca/concern/etds/8k71nj12p.
- Hope, J., & Havir, L. (2002). You bet they're having fun! *Journal of Aging Studies*, 16(2), 177–197. https://doi.org/10.1016/s0890-4065(02)00043-9.
- Kim, H. S., Wohl, M. J., Gupta, R., & Derevensky, J. L. (2017). Why do young adults gamble online? A qualitative study of motivations to transition from social casino games to online gambling. *Asian Journal of Gambling Issues and Public Health*, 7(1). https://doi.org/10.1186/s40405-017-0025-4.
- Koew, J. (2024, July 16). Technology secrets: How casinos track player behavior. https://typeshare.co/embellish-whisper-1565/posts/technology-secrets-how-casinos-track-player-behavior
- Lam, L. W., Chan, K. W., Fong, D., & Lo, F. (2011). Does the look matter? The impact of casino servicescape on gaming customer satisfaction, intention to revisit, and desire to stay. *International Journal of Hospitality Management*, 30(3), 558–567. https://doi.org/10.1016/j.ijhm.2010.10.003.
- Moreira, D., Azzeredo, A., & Dias, P. (2023). Risk factors for gambling disorder: A systematic review. *Journal of Gambling Studies*, 39(2), 83-511. https://doi.org/10.1007s10899-023-10195-1.
- Mullennix, B. (2023, May 6). Why casinos don't have clocks or windows (explained!). FeelingVegas. https://www.feelingvegas.com/why-casinos-dont-have-clocks-windows/.

- Regulatory Management Counselors, P.C. (2025, May). Regulatory overview. Casino City's Gaming Regulation. https://www.gamingregulation.com/regulatory-overview. Casino City's Gaming Regulation. https://www.gamingregulation.com/regulatory-overview.com/regulatory-ov
- Robb-Dover, K. (2019, February 17). How casinos enable gambling addiction ... and how to stop. FHE Health Addiction & Mental Health Care. https://fherehab.com/news/tricks-of-the-trade-how-casinos-enable-gambling-addiction-and-how-to-stop/.
- Salaghe, F., Sundali, J., Nichols, M. W., & Guerrero, F. (2020). An empirical investigation of wagering behavior in a large sample of slot machine gamblers. *Journal of Economic Behavior & Organization*, 169, 369–388. https://doi.org/10.1016/j.jebo.2019.11.024.
- Scavette, A. (2022, July). Casinos and regional economies: Has the game changed? Federal Reserve Bank of Richmond. https://www.richmondfed.org/publications/research/economic brief/2022/eb 22-28.
- Smith, J. (2023, January 17). The history of Las Vegas Casinos. Casino.org Blog. https://www.casino.org/blog/the-history-of-las-vegas-casinos/.
- Sramek, E. (2023, October 29). Casino rewards program: Why casino owners absolutely need it? Scaleo blog. Scaleo.io. https://www.scaleo.io/blog/casino-rewards-program-why-casino-owners-absolutely-need-it/.
- St-Pierre, R. A., Walker, D. M., Derevensky, J., & Gupta, R. (2014). How availability and accessibility of gambling venues influence problem gambling: A review of the literature. *Gaming Law Review and Economics*, 18(2). https://doi.org/10.1089/glre.2014.1824
- Sternlicht, L., & Sternlicht, A. (2023). A rise in sports betting means a rise in sports gambling addiction. Family Addiction Specialist: Addiction Counselor.

 https://www.familyaddictionspecialist.com/blog/a-rise-in-sports-betting-means-a-rise-in-sports-gambling-addiction.
- Stutz, H. (2021, September 26). Cashless gaming and digital payments are moving into the casino world. *The Nevada Independent*. https://thenevadaindependent.com/article/ca shless-gaming-and-digital-payments-are-moving-into-the-casino-world.
- Tyszka, T., Macko, A., & Stańczak, M. (2015). Alcohol reduces aversion to ambiguity. *Frontiers in Psychology*, 5, 1578. https://doi.org/10.3389/fpsyg.2014.01578