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The Influence of Environmental Design and Marketing Strategies on Consumer Behavior in Portuguese Land-Based Casinos

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Master in Marketing

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BUSINESS
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Glossary

ICLG - International Comparative Legal Guides
VIP - Very Important Importance
VIF - Variance Inflation Factor
M - Mean
SD - Standard Deviation

Resumo

Este estudo investiga como elementos de design ambiental (layout, estímulos sensoriais, iluminação) e estratégias de marketing (gamificação, programas de fidelização, promoções) interagem para influenciar o comportamento do consumidor em casinos terrestres portugueses.

Usou-se uma metodologia mista, combinando qualitativa (focus group com sete participantes e entrevista semiestruturada com ex-diretor de casinos) e quantitativa (n = 300 inquéritos aplicados a visitantes de casinos). Os resultados qualitativos indicam que os estímulos sensoriais, como som, iluminação e falta de referências temporais, alteram a perceção da duração das sessões e aumentam o envolvimento emocional. Espaços com o layout fluido e conforto ambiental estimulam a exploração e permanência. A análise quantitativa revela correlações significativas entre design sensorial e distorção do tempo, assim como distorção do tempo e duração da sessão. Programas de fidelização aumentam a frequência de visitas, contudo não impactam diretamente os gastos por visita. Por outro lado, o design sensorial e o salário mensal, mostram-se indicadores significativos de despesa. Pode-se concluir que, em ambientes de entretenimento, investimentos em ambientação têm maior impacto no tempo de permanência e nos gastos do público do que estratégias promocionais isoladas. É recomendado que operadores e reguladores considerem padrões éticos no design sensorial e incorporem programas de fidelização a experiências multisensoriais, a propósito de maximizar os resultados comerciais e o bem-estar dos clientes.

Keywords: Design ambiental, Estratégias de marketing, Comportamento do consumidor, Casinos terrestres, Condicionamento operante

Abstract

This study examines the interaction between marketing tactics (gamification, loyalty programs, promotions) and environmental design components (lighting, spatial layout, sensory stimuli) in influencing customer behaviour in land-based casinos in Portugal. Quantitative analysis (n = 300 surveys of casino patrons) and qualitative insights (seven-participant focus groups and semi-structured interviews with a former casino director) were integrated in a mixed-methods approach. Qualitative results indicate that sensory factors, including ambient sound, lighting intensity, and the absence of time cues, enhance emotional engagement and alter the perceived duration of a session. Longer visits and exploration are encouraged by spacious, comfortable design. Significant relationships between sensory design and time distortion and between distortion and session length are demonstrated by quantitative results. While loyalty programs had little direct impact on per-visit expenditure, they do considerably boost visit frequency. Rather, spending is significantly predicted by sensory design and monthly income. According to the study's findings, investments in sensory ambiance have a bigger effect on session length and spending in immersive entertainment environments than do stand-alone marketing strategies. To maximize economic results and customer well-being, operators and regulators are advised to embrace ethical sensory-design principles and incorporate loyalty programs with multisensory experiences.

Keywords: Environmental design, Marketing strategies, Consumer behavior, Land-based casinos, Operant conditioning

Glossary i
Resumo ii
Abstract iii
1. Introduction 1
1.1. Theoretical Background 1
1.2. Research Objectives 1
1.3. Academic Relevance 2
1.4. Structure of the Dissertation 2
2. Literature Review 3
2.1. Contextualization: The Portuguese Casino Industry 4
2.2. Theoretical Foundations 4
2.3. Typology and Context of Casinos 7
2.4. Communications Strategies in Casino Marketing 8
2.5. Gamification in Casino Marketing 9
2.6. Casino Design and Atmosphere 10
2.7. Psychological Impacts of Gambling Environments 12
2.8. Responsible Gambling and Ethical Considerations in Casino Marketing 14
2.9. The 7Ps Marketing Mix in Casino Marketing Strategies 15
2.10. Conceptual Model and Research Hypothesis 19
3. Methodology 25
3.1. Type of Study 25
3.2. Research Design 26
3.3. Participants and Sampling: Quantitative and Qualitative Components 27
3.3.1 Quantitative Study Sample 27
3.3.2. Qualitative Study Sample 28
3.4. Data Collection Method 29
4. Research Findings and Analysis 29
4.1. Qualitative Findings 29
4.1.1. Focus Group Insights 29
4.1.2. Expert Insights 31
4.1.3. Combined Reflection 33
4.2. Quantitative Findings 33
4.2.1. Sample Characterization 33
4.2.2. Descriptive Statistics of the Indices 34
4.2.3. Hypothesis Testing 37
4.3. Summary of Research Findings 42
4.4. Contributions to Existing Theories 44
4.5. Implications for Practice 47
5. Conclusion 48
5.1. Limitations of the Study 49
5.2. Recommendations for Future Research 50
References 51
Appendices 54

1. Introduction

1.1. Theoretical Background

Operant Conditioning Theory, first articulated by B.F. Skinner in 1953, posits that voluntary behavior is shaped by its consequences, with reinforcement and punishment serving as primary mechanisms. *"The efficacy of such schedules in generating high rates has long been know to the proprietors of gambling establishments. Slot machines, roulette wheels, dice cages, horse races, and so on pay off on a schedule of variable-ratio reinforcement"* (Skinner et al., 2014, p. 104), as in casino contexts, variable-ratio reinforcement schedules delivered through unpredictable slot-machine payouts and loyalty-program rewards generate high engagement and habitual play.

Gambling behaviors are strengthened by sensory stimuli like flashing lights and joyful noises, which serve as instantaneous positive reinforcers, *"The reinforcement which develops skill must be immediate. Otherwise, the precision of the differential effect is lost"* (Skinner et al., 2014, p. 96).

Visual Perception and Attention Theory, as developed by Treisman and Gelade in 1980, explains how preattentive processing of features like color and motion automatically captures attention, while focused attention integrates these features into coherent objects, *"Features are registered early, automatically, and in parallel across the visual field"* and *"objects are identified separately and only at a later stage, which requires focused attention"* (Treisman & Gelade, 1980, p. 98). This dissertation synthesizes these frameworks to investigate how sensory stimuli serve as instantaneous reinforcers that simultaneously influence gambling frequency, session length, and spending, when combined with operant conditioning mechanisms incorporated into marketing efforts.

1.2. Research Objectives

The aim of this study is to investigate how environmental design elements and marketing strategies interact to influence consumer behavior in Portuguese land-based casinos. To achieve this aim, the study will situate the Portuguese casino industry within its economic, cultural, and regulatory context; quantify how lighting, spatial arrangement, and sensory

stimuli affect customer immersion, temporal perception, and emotional engagement; evaluate the impact of marketing tactics such as gamification, promotions, and loyalty programs on visit frequency and spending; and integrate quantitative survey results with qualitative insights from focus groups and an expert interview to develop evidence-based recommendations for ethically optimizing casino environments and marketing practices.

This study seeks to answer the question:
Q1: How do environmental design elements and marketing strategies interact to influence consumer behavior in Portuguese land-based casinos?

1.3. Academic Relevance

The research enhances behavioral theory by applying Operant Conditioning Theory to complex, multisensory service settings. It shows that variable-ratio schedules in loyalty programs have a different effect on visit frequency than sensory reinforcements that drive spending behaviors, *"gambling behaviour is likely to be strongly influenced by operant learning principles"* (Delfabbro, King, & Parke, 2023, p. 1). By linking preattentive processing of motion and color to quantifiable behavioral outcomes, like altered time perception and longer play sessions, it validates Visual Perception and Attention Theory in naturalistic casino environments, "participants also indicated that they would stay longer and bet more money in the playground when the music was present," (Finlay et al., 2009, p. 527). Understanding multi-modal influence tactics in experiential service environments is improved by combining these frameworks into a single conceptual model. The 7Ps marketing mix is further refined for immersive industries by empirical evidence that physical evidence elements have a greater impact on spending than loyalty-based promotions, *"grandiose designs and architectural structures also attract and retain casino customers"* (Tuguinay et al., 2023, p. 348).

1.4. Structure of the Dissertation

There are six separate chapters in this study project. The Introduction explains the goals of the thesis, places the research topic in context, formulates the research question, and highlights the related academic and practical relevance. It also looks at how environmental design and marketing strategies interact to affect consumer behavior in Portuguese land-based casinos. A thorough literature review is carried out in the second chapter to present the key theoretical

ideas intended for the research's advancement, particularly the definitions and uses of Visual Perception and Attention Theory and Operant Conditioning Theory, as well as the elements influencing customer behavior in casino settings, such as gamification tactics, loyalty programs, sensory design components, and the 7Ps Marketing Mix framework. It also discusses responsible gambling issues and the psychological effects of gambling environments in the Portuguese regulatory framework, which eventually results in the creation of a conceptual model and research hypotheses. The economic, cultural, and regulatory backdrop necessary to comprehend the distinct setting in which this research is situated is provided in the third chapter, which also discusses the Portuguese land-based casino business. To capture both apparent behavioral patterns and underlying psychological processes, the research used a mixed-methods strategy, which is described in the fourth chapter. This included a quantitative survey design, a qualitative focus group approach, and expert interview techniques. The thorough analysis of the data collected from Portuguese casino customers is presented in the fifth chapter. This study includes both qualitative insights from expert interviews and focus group theme analysis as well as quantitative findings from statistical studies. The discussion of the main conclusions, theoretical contributions to the theories of visual perception and attention and operant conditioning, practical ramifications for Portuguese casino operators and marketing specialists, study limitations, and suggestions for future research directions in the area of casino consumer behavior round out the sixth chapter.

2. Literature Review

The importance of marketing and design tactics in influencing decision-making has been emphasized more and more in the research of consumer behavior in the gambling context. These tactics are crucial for increasing customer spending and engagement in highly immersive environments like casinos, where subconscious influences are common. The casino sector has developed advanced strategies to draw in and keep clients by using ideas from behavioral psychology and neuromarketing.

This literature review examines how consumer behavior, environmental design, and marketing interact in casinos. It specifically investigates how marketing campaigns like gamification and loyalty programs, as well as sensory design components like layout, lighting, and soundscapes, interact to affect gambling behavior.

This dissertation emphasizes the psychological and cultural foundations of these tactics as used in Portuguese casinos. The research hypotheses, which look at how these factors work together to affect gambling frequency, duration, and spending, are supported by the data. The literature review's goal is to fill in knowledge gaps in the field and offer a theoretical framework for further research on the complementary effects of design and marketing in casino environments.

2.1. Contextualization: The Portuguese Casino Industry

Portugal's casino industry combines regulated online gambling with a strong tradition of land-based casinos, appealing to diverse customers. This intersection forms the basis for exploring how marketing and design strategies influence consumer behavior in a culturally specific environment.

Land-based casinos are particularly significant within Portugal's tourism and entertainment landscape. Grupo Solverde, for instance, operates well-known establishments such as Casino Chaves and Casino Espinho, which contribute to local economies by attracting tourists and generating employment. Despite the growth of online gambling platforms, the Portuguese casino market has shown resilience. *"In the second quarter of 2024, Portuguese land-based casinos and gaming machines collectively generated approximately €63.7 million in gross revenue"* (Limouzy, 2024). One example is the promotional event known as "Black Saturday" that occurred in November of 2024, hosted by Grupo Solverde at casinos, such as Casino Chaves and Casino Espinho, where the accumulated points by the members of Privilege Club were doubled in credit at those specific casinos (Grupo Solverde, 2025).

2.2. Theoretical Foundations

Operant Conditioning

First introduced by B.F. Skinner in 1953, Operant Conditioning posits that behavior is shaped by the consequences of actions, with reinforcement and punishment serving as key mechanisms. This hypothesis has long been used by casinos to encourage gambling. Unpredictably rewarding players with variable-ratio reinforcement schedules creates excitement and anticipation, which keeps people engaged. For example, *"The efficacy of such schedules in generating high rates has long been know to the proprietors of gambling*

establishments. Slot machines, roulette wheels, dice cages, horse races, and so on pay off on a schedule of variable-ratio reinforcement" (Skinner et al., 2014, p. 104).

Operant conditioning represents a fundamental learning process where behaviors are modified through their consequences. Unlike classical conditioning, which focuses on involuntary responses to stimuli, operant conditioning deals with voluntary behaviors that can be increased or decreased through strategic manipulation of environmental consequences. This learning paradigm has proven exceptionally relevant to understanding gambling behavior, as *"gambling behaviour is likely to be strongly influenced by operant learning principles"* (Delfabbro et al., 2023, p. 1).
Positive reinforcement, negative reinforcement, positive punishment and negative punishment are the four main mechanisms at the core of operant conditioning that systematically shape behavior. In casino environments, positive reinforcement manifests when slot machine wins are accompanied by celebratory sounds, flashing lights, and monetary rewards, creating powerful associations between gambling behavior and pleasurable outcomes.

The strength and durability of a behavior are shaped by variable reward timing, often known as a reinforcement schedule. The variable-ratio schedule is the most effective and habit-forming one, with wins occurring after an unpredictable number of attempts. Slot machines are a prime example: players keep playing in the hopes that the next spin will be profitable because they never know when they will win.

Furthermore, the gambling experience is improved by sensory reinforcements, which include flashing lights, joyous noises, and visually engaging settings. In addition to raising expectations and feelings of achievement, these cues also encourage regular engagement. As Skinner noted, *"The reinforcement which develops skill must be immediate. Otherwise, the precision of the differential effect is lost"* (Skinner et al., 2014, p. 96).

Casinos also use variable-ratio scheduling, sensory cues, and loyalty programs to provide consistent positive reward. Material things. Unrestricted gaming and special access to events are given to returning guests. The concepts of operant conditioning are demonstrated by this combination, which guarantees a continuous impact on players' behaviors and promotes habitual engagement.

Visual Perception and Attention Theory

The Visual Perception and Attention Theory, which builds on the research of Treisman and Gelade (1980), describes how visual cues draw in and direct the attention of consumers in complex environments. According to this theory, people individually analyze visual elements like color, shape, and motion before focusing their attention to combine them to form coherent experiences. As Lavie (1997) stated, *"the visual features of unattended objects are registered separately, in independent representational maps that code values on various stimulus dimensions (e.g., sizes, colors, orientations). The conjunction of features into multidimensional objects [...] is mediated by focused attention"* (Lavie, 1997, p. 543).

The Visual Perception and Attention Theory, developed in 1980 by Anne Treisman and Garry Gelade, offers important insights into how casinos deliberately use visual cues to draw in and focus the attention of their customers. The cognitive processes that explain how environmental design affects behavior in complex visual environments are explained by this theory.

According to the feature integration theory, there are two different phases of visual processing. *"Features are registered early, automatically, and in parallel across the visual field"* (Treisman & Gelade 1980 p. 98) during the pre-attentive stage. According to Treisman and Gelade (1980, p. 98), *"objects are identified separately and only at a later stage, which requires focused attention"* in the following focused-attention stage. The architecture of casinos and customer behavior are significantly impacted by this two-step procedure.

According to research, *"motion and color are highly effective in guiding attention, with participants achieving near-perfect accuracy"* in complex visual environments, whereas *"shape detection was notably less accurate, with greater variability in responses"* (Jusufi & Andersson, 2025, p. 464). Through motion-based attention capture and color-based attention processes, specific design aspects in casino settings instantly capture attention, which can be explained by preattentive processing.

In order to draw in and keep customers, casinos deliberately create their spaces with highly noticeable elements like flashing lights, vivid colors, and dynamic layouts. According to eye-tracking research, these components direct players to particular machines or promotional areas, influencing decision-making and increasing engagement. Casinos optimize customer connection by utilizing these ideas to create immersive settings.

The Integration of Theories

Visual Perception Theory and Operant Conditioning work together to highlight how casinos use rewards and sensory design to affect customer behavior. Visual and auditory signals draw and focus attention, assuring extended engagement with the gaming environment, while reinforcement schedules maintain gambling behaviors. These theories offer a conceptual basis for investigating their wider effects on consumer behavior in addition to explaining the workings of successful casino marketing.

This theoretical foundation provides important insights into the effectiveness of marketing and design techniques as well as the psychological factors that motivate them.

2.3. Typology and Context of Casinos

Over time, the casino sector has undergone substantial change, encompassing a variety of establishments that are adapted to different legal conditions and consumer interests. These types can be divided into three categories: land-based casinos, online casinos, and special subgroups like riverboat casinos. Particularly in the context of Portugal's gambling industry, an understanding of the typology of casinos is essential for evaluating their marketing tactics and impact on consumer behavior.

Land-Based Casinos

The most traditional type of gaming establishments are land-based casinos, sometimes referred to as brick-and-mortar casinos. These establishments range in size from modest, privately held establishments to massive resort-style complexes that offer non-gaming amenities including dining options, entertainment venues, and accommodation in addition to gambling activities alternatives like slot machines and table games. Famous locations like Macau and Las Vegas demonstrate the attraction of land-based casinos worldwide by providing immersive experiences that combine gambling with luxury.

Economic Impact and Trends

The casino industry's economic importance goes beyond its earnings. Both physical and virtual casinos support area growth, tourism, and job creation. In Portugal, land-based casinos serve as centers of culture and relaxation, and the entertainment and gambling industries are essential to the country's economic development. The Service for Intervention in Addictive

Behaviors and Dependencies (2017) found that 46.2% of Portuguese adults gambled without any problems, highlighting how common gambling is in the nation's culture.
In order to reach a wider audience, industry trends also show that incorporating non-gaming services is becoming increasingly important. This diversification approach is in line with international standards meant to increase client retention and lessen the stigma attached to gambling.

2.4. Communications Strategies in Casino Marketing

Casino marketing tactics aim to captivate customers, promote engagement, and cultivate loyalty. These strategies strive to create engaging experiences while fostering long-term company success. Casinos use a combination of conventional and contemporary methods, including neuromarketing and digital tactics, to draw in and keep a varied customer base as the gambling sector develops. Casinos adjust to shifting customer trends and market conditions by analyzing these tactics.

Promotions and loyalty programs play a major role in keeping consumers engaged and influencing their gambling behavior at both online and physical casinos. A lot of casinos hold seasonal promotions like galas on New Year's Eve or events with a holiday theme in order to draw big crowds and increase consumer spending during busy times. These tactics produce distinctive and unforgettable experiences that promote return visits.

Customer loyalty is encouraged by loyalty programs, which work as positive reinforcers. These programs make members feel recognized and privileged by providing them with both material benefits, like free play on slots or tables, and social rewards, such as exclusive events and personalized treatment. Studies show that these kinds of initiatives are essential for increasing customer engagement and encouraging return visits, especially in land-based casinos (Baloglu et al., 2014).

Relationship marketing is also a key component of casino marketing strategy since it encourages sustained consumer engagement, prioritizing tactics like loyalty programs and customized experiences to increase client pleasure and expenditure, emphasizing that customer retention is a more sustainable strategy than customer acquisition, as *"retention and loyalty creation have also gained more attention within the casino gaming literature. However, authors still consider customer acquisition necessary. Min et al. (2016) indicated*

that for market leaders, in a competitive and mature business environment, maintaining market leadership requires investment in customer acquisition, despite being costly." (Tuguinay et al., 2023, p. 335)

The significance of segmentation and customized marketing tactics in boosting client loyalty is shown by the Prentice et al. (2021) study. For example, the research discovered that *"non-gaming experience had a stronger positive effect on behavior intentions for customers whose main purpose of visit was non-gambling"*. This insight implies that marketing tactics need to be in line with the specific preferences and expectations of diverse clientele segments.

Promotional strategies are essential for increasing customer acquisition in addition to these retention-focused programs. Techniques like lottery promotions and match play vouchers have worked well for drawing in new customers and promoting return business. These strategies use the thrill of winning and the excitement of gambling to create a loyal clientele. Additionally, varied casino products expand appeal and improve the consumer experience. In order to reach a larger audience, many casinos increasingly incorporate non-gaming features, including eating options, entertainment shows, and theme attractions. This diversification boosts a casino's competitive edge while also lessening the stigma associated with gambling as *"[...] having non-gaming product offerings helps to deconstruct the negative notion of casinos as purely gambling establishments"* (Tuguinay et al., 2023, p. 346).

The study also highlights how beneficial emotional engagement is in marketing tactics. *"Place attachment had a significant influence on spending and loyalty"* (Prentice et al., 2021, p. 8), which emphasizes the need to use tailored marketing campaigns to create memorable encounters. Casinos may boost customer happiness and increase revenue by utilizing both gaming and non-gaming components.

2.5. Gamification in Casino Marketing

Gamification, which uses game mechanics to engage and keep customers, has become a revolutionary marketing strategy in recent years. Gamification, which has its roots in motivational theory and behavioral psychology, adds features like leaderboards, badges, levels and points to conventional marketing campaigns to give consumers engaging and fulfilling experiences, *"the dynamics, gaming techniques, and game-style rewards have been transferred from the gaming software origins to business contexts, with the initial aim of*

increasing customer engagement. Thus, gamification implies the development of applications with games features and has become a fast-emerging trend in non-gaming contexts, especially marketing" (Milanesi et al., 2022, p. 2138). By appealing to consumers' natural drives for success, rivalry, and social connection, as *"research on gamification suggests that motivational and emotional involvement during playing can reach very high levels"* (Milanesi et al., 2022, p. 2138), gamification stresses ongoing engagement in contrast to traditional communication tactics, which frequently concentrate on persuasive messaging and marketing. By fusing concepts from games with the gambling experience, gamification helps casinos increase customer spending and loyalty. For instance, interactive challenges that unlock special rewards or tiered loyalty programs that allow users to "level up" based on their participation have been shown to be successful in encouraging emotional investment, *"as a result, gamification has seen substantial adoption by firms in recent years, with an estimated 70 per cent of Global 2000 firms having at least one gamified application"* (Harwood & Garry, 2015, p. 533), with several casino operators being featured in the Forbes Global 2000. By turning the gaming experience into a gamified adventure, casinos build a stronger psychological bond with their customers in addition to promoting longer stays.

This type of technique differentiates from traditional communication strategies because these rely on transactional value, providing incentives such as discounts or promotions to encourage quick action, whereas gamification builds a continuous, game-like experience that encourages long-term loyalty and emotional investment. For example, through its "Bring a Friend" promotion, Casino Lisboa employs a gamification method where customers receive 10€ promo tickets for recommending a friend who also receives a reward. By encouraging customers to actively participate and invite others, this establishes a goal-oriented structure that promotes social interaction and engagement. In contrast to conventional promotions, this strategy not only rewards quick action but also fosters a feeling of accomplishment and promotion, which entices gamblers to return and take part in subsequent campaigns.
So, while traditional loyalty programs use points to encourage purchasing, gamified loyalty programs include badges, challenges and levels, transforming point accumulation into a rewarding progression system.

2.6. Casino Design and Atmosphere

Gambling behavior is greatly influenced by casino design, which includes both macro design (the general structure of the casino) and micro décor aspects (color, lightning, and machine

grouping), "*Casino atmosphere falls within the realm of physical evidence. Physical evidence is the design and decor elements that are present in any service setting, including a casino*" (Bitner 1992, as cited in Mayer & Johnson, 2003, p. 21).

Casino environments are designed to create an immersive experience where the physical space itself becomes integral to the service being provided, as *"the higher the interaction between the facility and the customer, the more likely it is that the customer will view the facility as the service"* (Bitner 1992, as cited in Mayer & Johnson, 2003, p. 22), proving that these design elements, serve as tangible cues, shaping how customers evaluate their satisfaction and the casino's offering.

It has also been demonstrated that floor layout has a direct effect on customer retention and engagement. Short sightlines and maze-like layouts promote exploration and prolonged stays, increasing the number of players in casinos. Additionally, Friedman's (2000) design concepts for casinos highlight how layout affects traffic patterns and maximizes space usage for financial success.

"According to Friedman (2000), casino design has more impact on customer play than the number of rooms available, since it directs what percentage of a property's guest will choose to play on premise. Additionally, he maintains that casino design influences the decision of whether or not customers who are staying at competing properties will choose to play in another casino" (Mayer & Johnson, 2003, p. 24). In order to improve the entire gaming experience, casinos should carefully plan their venues to strike a balance between accessibility and a sense of discovery.

Studies by Finlay et al. (2006, 2007) and Marmurek et al. (2007) looked at how these factors impact customer's emotional states. For example, players' emotional reactions and gambling behavior were found to be significantly impacted by the combination of lightning treatment, color schemes, crowding, and machine grouping. According to Mehrabian & Russell (1974), these factors have varying information loads and affect emotions of enjoyment, recovery, and even at-risk gambling intentions (Finlay et al., 2006; Marmurek et al., 2007). This expands on studies that examine how emotional states and gambling behavior are influenced by the interaction between macro design and micro decór aspects (Finlay et al., 2009).

Besides that, casinos purposefully alter the music of their establishments to affect the mood and gambling habits of their customers as well. Music is a tool for establishing an engaging and comfortable environment, according to a study by Bramley et al. (2016) that examined

how casino managers use it to improve the casino atmosphere and encourage good feelings. To suit various clientele groups and the casino's general atmosphere, casino management adjusts the music's tempo, volume, and genre. Fast-paced and louder music, for example, is played at busy times to keep the ambiance vibrant, while calmer, quieter and lower music is played during slower moments or in places where people don't gamble, as *"the volume of the music is adjusted louder during busy times and quieter when managers thought that gamblers were required to learn or concentrate"* (Bramley et al., 2016 p. 1138).

The use of design components is in line with psychological theories like Visual Perception Theory and Operant Conditioning.
According to Operant Conditioning, both visual and auditory signals serve as instantaneous rewards, increasing participation. For example, the cheerful sounds produced by slot machines serve to increase feelings of accomplishment and expectation.
On the other hand, bright colors and flashing lights are examples of elements that draw attention in crowded spaces, according to Visual Perception Theory. Studies using eye tracking have shown that these components redirect consumers' attention to particular games or offers, boosting engagement and revenue.

2.7. Psychological Impacts of Gambling Environments

Gambling environments have a significant impact on people's psychological states and frequently lead to a vicious circle of financial harm, behavioral risks and emotional pain. These impacts are amplified by the mix of immersive casino design, targeted marketing tactics, and personal vulnerabilities, which shape spending patterns and customer behavior. These psychological effects are especially noticeable in vulnerable populations, such as teenagers, those who are socially isolated, or people who already have mental health issues.

Increasing Vulnerabilities in Behavior and Emotion

Although gambling establishments are carefully planned to draw in and keep customers, they frequently take advantage of psychological weaknesses. Regular gambling, for example, has been connected to mental issues including anxiety and depression, *"time spent gambling was a significant predictor for higher levels of impulsivity, […] and having suffered from depression"* (Livazović & Bojčić, 2019, p. 10). Furthermore, according to Livazović and Bojčić (2019), gambling frequency is linked to other antisocial behaviors, including substance abuse and delinquency, which worsens the psychological burden.

Casinos purposefully design their premises to create a sente of escapism, which appeals to people who are looking for emotional or stress relief, as *"addictive behaviors often have underlying escapist motives, where such behavior is a response to stressful, burdening, or otherwise unideal life situations"* (Sirola et al., 2023, p. 1468). Longer participation is further encouraged by the immersive sensory stimuli, bright lights, nonstop music, and the lack of clocks, which dulls awareness of time and spending.

Exploitative Marketing Strategies

Casino marketing tactics amplify these psychological effects by taking advantage of customer weaknesses to increase spending and engagement. For example, loyalty programs encourage repeated visits and repeat gambling by generating a sense of reward and exclusivity. Leaderboards, point systems, VIP tiers, and other gamification features play on people's competitive nature and need for approval from others. Sirola et al. (2023) highlight that *"support derived from online communities, such as those dedicated to promoting and normalizing excessive gambling",* further reinforces gambling behaviors (p. 1479).

Additionally, casinos often use seasonal events and tailored incentives to target at-risk demographics, such as young males or individuals with low academic success, as *"males reported significantly higher gambling consequences on all scales and significantly more risk behaviour."* (Livazović & Bojčić, 2019, p. 1) and *"lower school achievers report significantly higher psychological consequences of gambling in relation to more successful students"* (Livazović & Bojčić, 2019, p. 4).

Psychological Consequences and Long-Term Risks

The psychological effects of gambling are visible in the feelings of sadness, fear, and guilt that people frequently express. Sirola et al. (2023) stress that when *"gambling develops into excess, it brings various forms of emotional, social, and financial harm to individuals and their loved ones"* (p. 1468).

Teenagers are especially vulnerable to these consequences, as problem gambling is closely linked to mental health conditions including anxiety and depression as well as unhealthy coping mechanism, *"adolescent problem gamblers use less task-focused coping and more avoidance coping strategies than nongamblers, while male excessive gamblers demonstrate more emotion-focused coping strategies, such as anger, frustration or anxiety during negative events"* (Livazović & Bojčić, 2019, p. 11) and *"similar to adults with a gambling disorder,*

adolescents report having a preoccupation with gambling; repeated attempts at recouping losses; increasing wagers to reach a physiological level of excitement; lying to others about gambling; with anxiety and depression when trying to reduce their gambling." (Livazović & Bojčić, 2019, p. 11)

2.8. Responsible Gambling and Ethical Considerations in Casino Marketing

Portugal's gambling laws are designed to balance consumer protection with business viability. Although casinos employ marketing techniques like gamification, loyalty programs, and sensory design to promote gambling, ethical issues and responsible gambling guidelines are now major topics of conversation when it comes to casino operations. The main regulatory organization in charge of the gambling sector is the Serviço de Regulação e Inspeção de Jogos (SRIJ), which makes sure that casinos follow by rules intended to reduce gambling-related harm and encourage responsible gambling (Regulating and Supervising Gambling, n.d.)

Portuguese Casino's Ethical Marketing and Regulatory Environment

All physical casinos in Portugal are required to have responsible gambling policies in place, such as spending limits, self-exclusion plans, and campaigns to raise awareness of problem gambling. Operators are required by ICLG to offer *"mechanisms that allow players to set limits on their wagers and deposits, as well as offer self-exclusion options for those who feel the need to take a break from gambling activities"* (Courela & Henriques, 2024). These measures are in line with international guidelines for responsible gambling and are intended to shield susceptible customers from the dangers of excessive gambling.

Strict advertising laws also apply to casinos to make sure they do not take advantage of vulnerable groups. According to Cortés (2023), all gambling ads in Portugal must be *"truthful, clear, and accurate, avoiding harm or misleading information to consumers"*. Targeting children, self-excluded gamblers, or anyone with gambling disorders is specifically prohibited. Additionally, it is legally forbidden to advertise close to parks, schools and other places where kids frequent to stop gambling among youths from becoming normalized (Abrams, 2024).

Real-World Implementations: Solverde Casinos and Hotels

Solverde Casinos & Hotels, one of Portugal's largest casino operators, actively supports responsible gambling programs to abide by moral and legal obligations. Players are advised to

"stipulate an amount to spend and when this value has been reached, do not play anymore" (Grupo Solverde, 2025), emphasizing the significance of self-imposed financial limits. The casino also encourages players to *"establish time limits for gaming"* and *"keep a record of all your gaming activity"*, reinforcing the need for self-awareness in gambling behaviors (Grupo Solverde, 2025).

Furthermore, Solverde Casinos have implemented on-site initiatives to raise knowledge of responsible gambling, which offer details on risk factors, support services, and gambling addiction.

Key Takeaways on Ethical Casino Marketing in Portugal

For Portugal's casino business to remain viable and socially conscious, ethical marketing techniques and responsible gambling regulations must be combined. Even if casinos like Solverde have put in place spending caps, self-exclusion policies, and awareness campaigns, concerns remain regarding the effectiveness and genuine commitment of these initiatives. Stricter enforcement, improved consumer education, and the implementation of proactive, responsible gambling measures above and beyond legal compliance are probably going to be key components of Portugal's future ethical casino marketing.

2.9. The 7Ps Marketing Mix in Casino Marketing Strategies

This thesis uses the 7Ps Marketing Mix as a conceptual framework to analyse the various tactics used by casinos to affect consumer behavior. The 7Ps framework, which was first created to handle the complexities of service-oriented businesses, expands upon the conventional 4Ps (Product, Price, Place, Promotion) by adding People, Process, and Physical Evidence, all of which are especially pertinent in the gaming sector, where both intangible and tangible elements play crucial roles in shaping consumer experience, *"through these variables, marketers can establish an effective marketing plan for the organization"* (Ryńca & Ziaeian, 2021, p. 2).

When it comes to the product offered by casinos, they provide non-gambling facilities like dining options, spas, and live entertainment in addition to gambling options like slot machines and table games, *"product diversification is a strategy many casinos practice to generate sales and improve firm performance. This extends to geographical and brand diversification allowing casino operators to widen access to potential customers"* (Tuguinay et al., 2023, p. 341). The presentation of casinos as all-inclusive entertainment venues helps to draw in a

wider audience and lessen the stigma associated with gambling. By expanding their product offerings, casinos give patrons a more interesting experience that increases consumer happiness and retention. Prentice et al. (2021) highlighted that *"both gaming and non-gaming customer experiences had significant positive effects on place attachment and customer loyalty intention."* (p.8), emphasizing the significance of diverse product offerings. Along with drawing in various customers, these components improve retention and pleasure by creating experiences that are specifically tailored to each individual.

Pricing tactics strengthen consumer involvement even more. Casinos frequently use strategies that boost perceived value and promote spending, like graduated loyalty programs, match play coupons, and promotional discounts. Giveaways like hotel room discounts or coupons for free play, for instance, can encourage return business and recurring business. By using these pricing strategies, casinos can serve a variety of clientele, increasing their appeal and fostering loyalty.

Place has an equally important impact and includes both the actual location of casinos and their interior design. Clear signage, comfortable seating, and carefully planned floor layouts are just a few of the strategic design components used to create an appealing and interesting space since *"grandiose designs and architectural structures also attract and retain casino customers"* (Tuguinay et al., 2023, p. 348). In addition to improving the overall atmosphere, elements like centrally located attractions or themed settings also entice clients to spend more time and money at the casino.

Perhaps the most noticeable component of casino marketing is promotion. Direct mail, loyalty programs, internet advertising, and seasonal campaigns are all used to draw in new clients and hold onto current ones. Loyalty programs are among the most successful marketing strategies used in actual casinos, as *"casino customers are encouraged to become members by signing up for casino's loyalty programs or membership programs. Casinos use this information to create customer databases for promotional activities"* (Tuguinay et al., 2023, p. 341). Tiered memberships, in which users earn points according to their spending, are frequently a feature of these systems. These points can be exchanged for material benefits like free meals, tickets to shows, or even hotel stays. Additionally, casinos use time-sensitive promotions to generate excitement and a sense of urgency.

People are essential to client happiness in the service-oriented setting of a casino. Frontline employees, such as hosts and dealers, are crucial to making the experience enjoyable and unforgettable. Casinos frequently spend money on employee training to guarantee excellent interactions, especially for VIP clientele who gain from personal hosts and customized services. These initiatives promote repeat business and strengthen consumer trust. *"Casino employees fall under the people antecedent and include non-gaming and gaming staff. Gaming marketing executives, managers, and VIP hosts provide personal assistance to gaming customers during their stay in casinos. Service excellence and emotional empathy were influential factors that influenced customers' future patronage"* (Tuguinay et al., 2023, p. 344).

The whole experience is also greatly enhanced by simplified processes. Customer friction is decreased by effective processes for joining loyalty programs, speedy payment options, and smooth service delivery. Casinos make the experience more seamless by reducing any obstacles to participation, which encourages retention and loyalty, "*the process of membership sign-up for casinos is the first step toward engaging customers in loyalty rewards or programs. In addition to loyalty program benefits, the ease of the membership sign-up process may influence customer decisions and behaviors. Consumers prefer easily accessible loyalty programs (Catchings, 2021) as it was found that complication may hinder customer engagement (Noble & Philips, 2004)"* (Tuguinay et al., 2023, p. 346).
Lastly, the sensory and visual elements of a casino, the physical evidence, have a significant influence on customer behavior. Certain feelings, like excitement and relaxation, are purposefully evoked by elements like ambient lighting, music and extravagant décor. In line with the more general objectives of casino marketing, this immersive setting entices clients to prolong their stays and spend more money.

The explanation, demonstrates how each of the 7Ps framework's elements is essential to influencing consumer behavior and encouraging retention in the gaming sector. To provide a concise yet comprehensive overview, the antecedents of customer retention identified in the literature review are organized in such table, categorized according to the 7Ps Marketing Mix.

7Ps Element	Antecedents of Customer Retention
Product	1. Casino gaming services 1.1. Slots, table games, etc. 2. Non-gaming services 2.1. Restaurants, bars, entertainment, etc. 3. Branding and destination image 4. Corporate Social Responsibility campaigns 4.1. Responsible gambling
Price	1. Discounts on non-gaming amenities 2. Affordable packages 2.1. Food, accommodations, etc. 3. Tiered loyalty rewards
Place	1. Accessibility to casino locations 2. Tailored experience for VIPs
Promotion	1. Loyalty Programs 1.1. Redeemable points, complimentary gifts, etc. 2. Sales promotions 2.1. Short-term free play coupons, lottery prizes 3. Complimentary services 3.1. Show tickets, free parking, meals
People	1. High-quality customer service 2. VIP personalized services 3. Emotional connections with customers
Process	1. Loyalty program enrollment 2. Quick and efficient service delivery 3. Simplified membership processes
Physical Evidence	1. Sensory design elements 1.1. Lighting, music, décor, etc. 2. Spacious and aesthetic layouts 3. Architectural styles aligned with themes

Table 1 - 7Ps Marketing Mix

Source: Adapted from Table 7 in Tuguinay, J., Prentice, C., Moyle, B., Vada, S., & Weaven, S. (2024). A journey from customer acquisition to retention: An integrative model for guiding future gaming marketing research. Cornell Hospitality Quarterly, 65(3), 335–353. https://doi.org/10.1177/19389655231214718

2.10. Conceptual Model and Research Hypothesis

The suggested conceptual model in Figure 1 shows how marketing tactics and environmental design components interact closely to influence consumer behavior in Portuguese land-based casinos. In order to show how casinos deliberately affect consumer involvement through a variety of sensory and psychological pathways, this framework synthesizes important theoretical foundations and empirical findings.

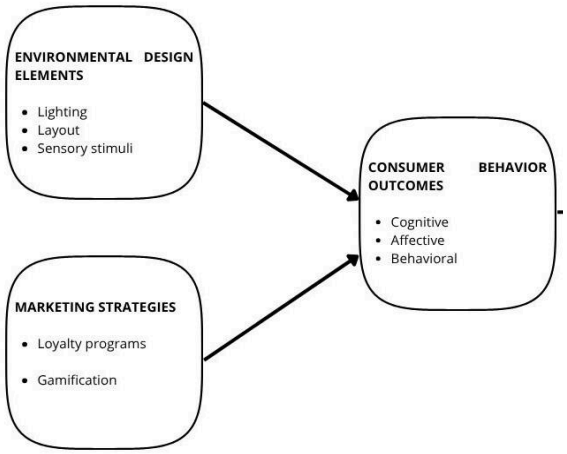


Figure 1 - Integrated Environmental-Marketing Influence Model for Casino Consumer Behavior

The literature review emphasizes how marketing tactics and environmental design work together to influence consumer behavior in casinos. According to earlier studies, loyalty plans and marketing initiatives create a feeling of reward and exclusivity, which boosts consumer spending and engagement. Simultaneously, sensory components like lighting, sound, and layout of space improve the immersive experience and affect consumers' emotions and cognitive processes, as *"Tuan (1977) argued that an individual's construction of reality in a setting is based on many modes of sensory perception (e.g., vision, smell, hearing)"* (Finlay et al., 2009 p. 528).

Although each of these elements has been researched independently, there is not much comprehensive research looking at how they work together to influence gambling behavior. This study fills this gap by putting forth nine particular theories that were taken from the literature, as follows:

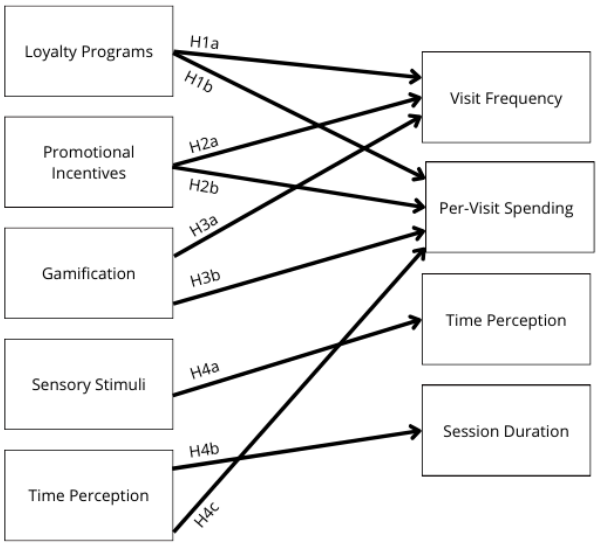


Figure 2 - Conceptual Model Illustrating Hypotheses H1a–H4c

H1a. Satisfaction with casino loyalty programs is positively associated with visit frequency.
H1b. Satisfaction with casino loyalty programs is positively associated with per-visit spending.

H2a. Favorable perceptions of promotional incentives are positively associated with visit frequency.
H2b. Favorable perceptions of promotional incentives are positively associated with per-visit spending.

H3a. Engagement with gamification techniques is positively associated with visit frequency.
H3b. Engagement with gamification techniques is positively associated with per-visit spending.

H4a. Intensity of sensory stimuli is positively associated with distortion of time perception.
H4b. Distortion of time perception is positively associated with longer session duration.
H4c. Distortion of time perception is positively associated with per-visit spending.

According to the theory of Operant Conditioning, marketing tactics like loyalty programs serve as reinforcers, promoting more frequent business and higher spending, as *"gambling behaviour is likely to be strongly influenced by operant learning principles"* (Delfabbro et al., 2023, p. 1) and *"loyalty reward programs, as a relationship marketing tool, are extensively used by companies in hope of cultivating customers' emotional commitment"* (Baloglu et al., 2014, p. 846). Additionally, the way that sensory design features attract and hold consumers' attention, influencing their actions and decision-making processes, is explained by concepts

from Visual Perception and Attention Theory, where *"features are registered early, automatically, and in parallel across the visual field"* (Treisman & Gelade, 1980, p. 98) and environmental elements like music have been shown to make *"participants stay longer and bet more money"* (Finlay et al., 2009, p. 527).
These hypothesis focus on culturally specific behaviors and preferences in the context of land-based casinos in Portugal. Portugal offers a unique opportunity to study how localized marketing tactics and sensory designs affect customer behavior because of its casino industry's emphasis on tourism and entertainment. The regional emphasis enhances the practical applicability of this research.

The study will also consider factors that may moderate or mediate the relationships proposed in the hypotheses. For instance, age and gender may influence how consumers respond to marketing tactics and sensory elements, while, on the other hand, emotional states, such as relaxation or excitement, could explain how sensory design translates into prolonged engagement.
This investigation intends to fill in the gaps in the literature by investigating these theories and offering practical evidence on how casinos use marketing and design to affect customer behavior.

Environmental Design Elements
According to the model of figure 1, lighting, layout, and sensory stimuli are the three main elements of environmental design which influence consumer behavior. The Visual Perception and Attention Theory, which describes how environmental signals draw in and focus consumer attention in intricate situations, serves as the foundation for these components. According to research, casinos purposefully design their physical rooms with highly noticeable features like flashing lights, vivid colors, and dynamic layout to attract and keep customers.

These design decisions have a significant psychological influence. For example, *"the higher the interaction between the facility and the customer, the more likely it is that the customer will view the facility as the service"* (Mayer & Johnson, 2003, p. 22). Casino facilities are expressly made to produce an immersive experience. Research has indicated that while micro décor elements like color schemes, lighting treatment, and machine grouping have a significant impact on players' emotional responses and gambling behavior, macro design

elements like floor layout have a direct impact on customer retention through maze-like configurations that encourage exploration and longer stays.

Sensory engineering includes audio stimulation in addition to visual components. *"The volume of the music is adjusted louder during busy times and quieter when managers thought that gamblers were required to learn or concentrate."* (Bramley et al., 2016, p. 1138) is one way that casino managers deliberately change the type, pace and volume of music to improve ambiance and promote good emotions.

Marketing Strategies

According to the approach of figure 1, gamification and loyalty programs are important marketing tools that enhance environmental design. These tactics work according to the principles of operant conditioning, which states that patterns of persistent engagement are produced by variable-ratio reinforcement schedules, meaning that rewards are given out unpredictably (for example, after a random number of plays or bets), so people keep playing in anticipation of the next reward, never knowing exactly when it will come. As relationship marketing tools, loyalty programs foster *"customers emotional commitment and enhancing their lifetime value,"* with emotional commitment being *"a key component of attitudinal loyalty, which separates true loyalty from spurious loyalty"* (Baloglu et al., 2014, p. 849).

By using game mechanics like leaderboards, badges, levels, and points to create captivating experiences that appeal to customers' natural desires for achievement and social connection, gamification is an evolution in casino marketing. Building *"a continuous, game-like experience that encourages long-term loyalty and emotional investment"* (Milanesi et al., 2022) is how this strategy differs from conventional promotional tactics.

Consumer Behavior Outcomes

Measurable results in cognitive, affective, and behavioral domains are produced when marketing strategies and environmental design come together. Through meticulously planned sensory inputs, these factors have an impact on cognitive processes such as attention allocation and decision-making. According to research, *"participants also indicated that they would stay longer and bet more money in the playground when the music was present"* (Finlay et al., 2009, p. 527). This suggests that the combination of luxury atmospherics and reward mechanisms produces emotional states ranging from excitement to relaxation.

In terms of behavior, these factors result in more frequent gambling, longer sessions, and higher spending. Research indicates that the combination of marketing incentives and sensory design results in reduced time perception and higher emotional engagement, both of which are directly linked to increased purchasing behaviors.

Moderating Factors

A critical advancement in this revised conceptual model is the explicit recognition that the effectiveness of both environmental design elements and marketing strategies in influencing consumer behavior outcomes is contingent upon specific moderating factors. These moderators determine the strength and direction of the relationships between design and marketing inputs and behavioral outcomes, acknowledging that the impact of casino environments and promotional strategies varies significantly across different conditions and contexts.

When it comes to environmental design elements as moderators, the concept views aspects of environmental design as moderating factors that can either increase or decrease the efficacy of marketing campaigns, in addition to having a direct impact on consumer behavior. Bitner (1992, referenced in Mayer & Johnson, 2003) made the claim that "casino atmosphere falls within the realm of physical evidence" (p. 21). Customers' reactions to loyalty programs and gamification strategies are moderated by the sensory environment that is produced by lighting, layout, and atmospheric design. Because these design features provide the psychological conditions required for clients to be responsive to promotional offers and loyalty incentives, marketing efforts may be more successful in settings with ideal lighting and cozy layouts.

The association between marketing tactics and customer reactions is moderated by the immersive qualities of environmental design. According to research by Finlay et al. (2009), sensory components can increase the effectiveness of marketing since "participants also indicated that they would stay longer and bet more money in the playground when the music was present" (p. 527). Because carefully designed sensory surroundings provide elevated emotional states and reduced critical evaluation, customers may be more vulnerable to the influence of loyalty programs. According to Treisman and Gelade (1980), "features are registered early, automatically, and in parallel across the visual field" (p. 98), which is supported by the theoretical underpinnings of Visual Perception and Attention Theory.

Similarly, marketing tactics work as moderating factors that affect how behavioral outcomes are influenced by environmental design features. According to Baloglu et al. (2014), "loyalty reward programs, as a relationship marketing tool, are extensively used by companies in hope of cultivating customers' emotional commitment and enhancing their lifetime value" (p. 846). Because they have developed an emotional attachment to the location and expect benefits for their participation, patrons who are part of extensive loyalty programs might be more receptive to environmental design cues.

The effectiveness of environmental design aspects is also moderated by the sophistication of marketing methods. The influence of sensory design on behavior can be increased by sophisticated gamification strategies that correspond with environmental cues, producing synergistic effects in which the combination has a stronger effect than either component alone. Milanesi et al. (2022) clarify that "the dynamics, gaming techniques, and game-style rewards have been transferred from the gaming software origins to business contexts, with the initial aim of increasing customer engagement" (p. 2138). By giving customers more incentives to interact with the physical space, loyalty programs that include environmental achievements, can increase the efficacy of spatial layout tactics.

Operant Conditioning Theory provides the theoretical foundation for understanding how marketing strategies moderate environmental effects. Skinner et al. (2014) established that "the efficacy of such schedules in generating high rates has long been know to the proprietors of gambling establishments" (p. 104). When marketing strategies incorporate these reinforcement principles, they can significantly enhance how customers respond to environmental design elements.

Portuguese Casino Contextualization

This conceptual model is especially tailored for land-based casinos in Portugal, which offer a unique case study that blends highly regulated operations with strong tourism integration. Operators such as Grupo Solverde serve as prime examples of how the Portuguese casino sector adapts worldwide design and marketing concepts to local cultural tastes while still adhering to regulations.

Industry data demonstrating that *"Portuguese-land-based casinos and gaming machines collectively generated approximately €63.7 million in gross revenue"* in the second quarter of 2024 (Limouzy, 2024) supports the model's application within Portugal's casino landscape

and shows that physical casino environments remain relevant despite the growth of digital gambling.

3. Methodology

3.1. Type of Study

This study uses a mixed-methods approach to examine how consumer behavior is influenced by casino marketing strategies and sensory design elements in Portuguese land-based casinos. Through the integration of quantitative survey data with qualitative insights from focus groups and an expert interview, the methodology allows for a multidimensional understanding of customer behavior, encompassing both observable patterns and underlying psychological or emotional responses.

The current study uses a three-part data collection technique in light of these theoretical foundations in order to capture both objective patterns and subjective experiences in casino environments. To determine customer perceptions and loyalty, as well as their sensory environment and casino design, a survey will first objectively evaluate how exposed they are to marketing strategies and environmental stimuli, including loyalty programs, promotional tactics, layout design, and sensory elements. The emotional and psychological aspects of the casino experience will then be systematically investigated through a focus group organized around key subjects, including time perception, digital interactions, spatial layout, sensory stimulation, and the extent to which individuals feel in control of their choices versus being influenced by the environment. The influence of "phygital" design components and how they shape memory, enthusiasm, and perceived control will also be examined. Third, an expert interview with the previous Casino da Madeira gambling director will provide managerial and professional insight into the strategic motivations for marketing and design decisions. Topics include digital technology integration, psychological objectives of environmental design, spatial and sensory engineering, and striking a balance between responsible gambling and immersive experiences are all covered in the conversation.
A comprehensive understanding of how marketing and environmental design work together to influence customer behavior in Portuguese land-based casinos is ensured by this gathered approach.

3.2. Research Design

In order to thoroughly investigate the impact of marketing tactics and sensory design components on customer behavior in Portuguese land-based casinos, this study uses a mixed-methods methodology that combines quantitative and qualitative approaches. This framework makes it possible to measure behavioral patterns as well as investigate further into emotional and psychological reactions, which are frequently influenced by experiential and environmental factors.

The quantitative component, which consists of a structured survey, looks for relationships between outcomes like gambling frequency, session length, and expenditure and exposure to marketing methods and design stimuli.
A focus group and expert interview are also included in the qualitative component, which aims to investigate the different subjective interpretations and affective relations related to casino settings. Sensory and ambient cues like lighting, sound, and layout have a direct impact on feelings like pleasure and restoration, which are associated with higher gambling intentions as shown by Finlay et al. (2010), as one of their main conclusions, which supports the use of qualitative inquiry to investigate affective responses, is that *"the playground design has consistently been associated with higher levels of all of these three measures."* (p. 528), referring to intentions, pleasure, and restoration.

Additionally, qualitative research helps uncover the experiential aspects of a casino visit. Prentice et al. (2021) found that *"customer experience, place attachment, and spend were significantly related to customer loyalty"* (p. 1), emphasizing that emotional engagement with the venue and its offerings is just as important to casino customers behavior as addiction or habit.

Gathering data sources is the idea behind this design, which aims to provide a more comprehensive picture of casino customer behavior.
The qualitative data adds depth by capturing fundamental emotional, psychological and environmental perspectives that are difficult for numbers to adequately express, even though the quantitative data offers quantifiable patterns.

3.3. Participants and Sampling: Quantitative and Qualitative Components

This study focuses on those who have either direct or indirect experience with Portuguese land-based casinos. A mixed-methods approach required distinct sampling strategies for quantitative and qualitative components: an online survey, a written-response focus group, and a written expert interview. The recruitment approach and participant selection criteria for each method are described in this section.

3.3.1 Quantitative Study Sample

The quantitative component primarily addressed members of Generation Z (born 1997-2012) and Millennials (born 1981-1996) in the survey component. These groups were chosen because they are more open to immersive marketing techniques, have more exposure to physical entertainment settings, and have a higher sense of digital fluency. Additionally, they are a crucial demographic target for the modernization initiatives of the casino sector. By focusing on these generations, the study hopes to produce up-to-date and pertinent insights about how younger adult audiences perceive and react to the advertising and environmental components found in contemporary land-based casinos.

Survey Participants

Those who had visited a Portuguese land-based casino in the previous 12 months and were at least 18 years old were the target audience for the poll. In order to guarantee that participants could consider current design elements, marketing strategies, and their behavioral experiences, this inclusion criterion was selected.

To increase outreach, a convenience sampling technique was used, supported by snowball sampling. Digital distribution of the survey was done through social media, messaging apps, and gambling-related online communities. To guarantee analytical depth and diversity in demographics, such as gender, age, and frequency of gambling, a minimum of 300 completed responses was required.

A pre-test was carried out with a participant who fit the target demographic in terms of age and casino experience before the survey's official launch. The objective was to evaluate the questions' usability, flow, and clarity. The participant said that the items and instructions were clear and finished the survey without any problems. Small formatting and punctuation corrections were suggested and implemented. The instrument was then prepared for wider distribution because no questions about its content or comprehension were brought up.

3.3.2. Qualitative Study Sample

The qualitative component employed purposive and expert sampling to capture in-depth insights from both casino customers and industry professionals.

Focus Group Participants

Seven people participated in the focus group, chosen by purposive sampling to guarantee a mix of casino customers and those who visit casinos for non-gambling reasons, like socializing. Because of this variability, the study was able to determine if environmental and sensory design elements affected customers regardless of their intention or frequency of gambling.

The session was performed remotely and in written format, in contrast to traditional spoken focus groups. Participants were given a structured set of open-ended questions based on thematic sections, and they were required to produce thorough written responses. Participants were able to react at their own pace and reflect more deeply due to this approach. Written informed consent was given by each participant, and anonymity was ensured.

The focus group was guided by the following specific research question:
RQ1a: How do casino customers perceive and experience the influence of environmental design elements (lighting, sound, spatial layout) and marketing strategies (loyalty programs, digital integration) on their emotional states, time perception, and behavioral choices in Portuguese land-based casinos?

Expert Interviewee

The former Gambling Director of Casino da Madeira participated in a semi-structured written interview to obtain a professional viewpoint on casino operations and design. Because of his operational and strategic experience in the field, this expert was chosen through expert sampling. His answers provided insightful information on how casino environments are purposefully designed to affect behavior while balancing ethical considerations.

The expert interview was guided by the following specific research question:
RQ1b: What are the strategic intentions and operational considerations behind environmental design choices and marketing strategies in Portuguese land-based casinos, and how do casino

management professionals balance customer engagement objectives with responsible gambling practices?

Ethical Note on Sampling

The goal of the study and each participant's rights were explained in detail to each participant. Before participation, written consent was acquired. Every response was anonymised, and no personal information was gathered. Participants were reminded that they could leave at any time without facing any repercussions.

3.4. Data Collection Method

Data assessed in this investigation were gathered using an online questionnaire (Appendix A) created using the Qualtrics XM platform. The questionnaire was available in English to enable a broader variety of participants. It was forwarded on a variety of social media platforms, such as Instagram and WhatsApp, and on websites such as SurveySwap. The interviews (Appendix B) were gathered through e-mail and WhatsApp.

4. Research Findings and Analysis

4.1. Qualitative Findings

Two qualitative techniques were used to investigate the complex connection between the design of the casino environment and customer behavior: a seven-person focus group and an expert interview with the former Casino da Madeira Gambling Director. When taken as a whole, these viewpoints provide a thorough understanding of how casino environments affect customer's behavior and emotions both from the inside and behind the scenes.

4.1.1. Focus Group Insights

The focus group investigated how guests reacted emotionally, behaved, and perceived the sensory and spatial aspects of land-based casinos. Six main categories of influence were identified using thematic analysis.

Sensory Stimuli and Time Perception

The two factors that had the most effect on mood and time awareness were lighting and sound. The lack of windows and clocks, artificial illumination, and constant ambient stimuli all contributed to the participants' reported loss of temporal sense.

> *"The ceiling lights are so intense that they make you lose track of time and what's around you."* — Participant 1

> *"The constant lighting and the absence of clocks distort your sense of time."* — Participant 2

Emotional Framing: Social Standards, Luxury, and Euphoria

Though others characterized this as culturally produced rather than personal, casinos were linked to feelings of luxury, power, and social excitement.

> *"Society portrays casinos like nightlife or partying, the 'good life.'"* — Participant 1

> *"It feels like you're in a hotel lobby, luxurious and welcoming."* — Participant 3

Others emphasized opposing feelings, such as frustration or detachment, based on the results of gambling or other people's actions.

Digital vs Traditional Gambling Experience

Participants' opinions on digital technologies were divided. Some people favored conventional tables because they felt they were more genuine and fair, even if touchscreen slot machines and digital roulette were thought to be easy to use and accessible.

> *"Digital games are easier and less intimidating than tables with real players."* — Participant 4

> *"I liked blackjack with real dealers, but tablets for decision-making, the best of both worlds."* — Participant 5

> *"Digital games are less intense and emotionally engaging compared to non-digital machines… somewhat unintuitive"* – Participant 6

Spatial Layout & Environmental Flow

The majority of participants appreciated the open, tidy, and welcoming spatial layout, which enticed them to stay longer and explore more.

> *"Even without playing, the layout made me want to explore."* — Participant 3

> *"The design influences choices subtly"* – Participant 7

While few said they felt specifically guided, many acknowledged that comfort and layout implicitly promoted prolonged presence.

Comparing Perceived Autonomy with Environmental Cues

Many participants admitted that lighting, sound, and spatial flow affected their behavior, even subconsciously, even though they claimed to feel in control.

> *"I'm in control, but lighting and comfort make me stay longer or play again."* — Participant 1

> *"You feel like you're exploring on your own, but everything is made to keep your attention."* — Participant 2

Suggestions for Improvement

Participants recommended more digital integration; friendlier staff interactions, lighter, more inviting interior design; and more non-gambling zones for relaxing and socializing.

> *"Casinos should offer more than just games: places to talk, relax, and enjoy the vibe."* — Participant 3

4.1.2. Expert Insights

A semi-structured interview with the former Gambling Director of Madeira Casino was conducted in order to compare operational understanding with public opinion. His answers showed that sensory, spatial, and psychological elements of casino design were the result of intentional strategies.

Sensory Engineering and Spatial Psychology

The director explained how the soundtracks, lighting, and layout were designed to produce comfortable, immersive environments. In order to prevent sensory fatigue, slot machines were placed at eye level, lighting was kept warm and indirect, and sound was controlled.

> *"The design of the casino environment is based on principles of ergonomics, environmental psychology, and player behavior."*

The absence of clocks and windows was purposeful in order to reduce temporal awareness to increase time spent. Light mimicked twilight to focus attention on games.

Customer Journey and Emotional Engagement

Key touchpoints, like friendly greets, interactions with employees, and loyalty benefits like dinners, gifts, and expensive raffles, were used to shape customer engagement.

> *"We had end-of-year dinners and prize contests as part of our loyalty strategy."*

Atmosphere was kept dynamic with occasional design revisions, improving innovation and comfort without losing premium appeal.

Balancing Stimulation with Responsibility

While the objective was to create an aspirational environment, Madeira Casino implemented safeguards for responsible gambling, such as employee education to identify dangerous conduct, educative messaging, and self-exclusion tools.

> *"We wanted a stimulating environment, but with clear boundaries and support tools."*

Phygital Integration and Innovation

Digital gambling technology, such as slot machines with customizable bets, was viewed as a useful instrument for engagement and segmentation. These factors also attracted younger audiences and prolonged session durations.

> *"Multivalue betting options in a single machine strengthened player engagement."*

Brand Philosophy and Non-Gaming Experiences

Curiously, local culture in Madeira wasn't a design priority. The idea was to present the casino as more than just a place to gamble, it was to be a multipurpose entertainment centre, as now, it has the most popular club on the island. The venue frequently features fine dining, cultural activities, and live music.

> *"Our vision was always to be more than a casino, but an integrated entertainment space."*

What Makes an Atmosphere Truly Engaging

The interview ended with a discussion of the factors that contribute to loyalty, which are: a sense of exclusivity, emotional connection, high-quality service, and sensory alignment.

> *"It's not just about stimulation, it's about telling a strong emotional story."*

4.1.3. Combined Reflection

The focus group and expert interview together show how deliberate design choices closely match consumer perception, even when customers are not aware of the tactics being used. The results provide a comprehensive knowledge of how physical space, sensory design, and digital elements work together to shape customer behavior in casino venues, highlighting an imbalance between perceived control and engineering impact, as participants think they have complete control over their behavior, yet ambient elements that are not completely aware of them frequently quietly influence their behavior.

4.2. Quantitative Findings

4.2.1. Sample Characterization

The sample of this study comprises 300 participants who have visited a physical casino within the past year and completed the full survey. Table II provides further information on participants' demographics, starting with generation. 66.3% of the respondents are part of Generation Z, while Millennials account for 26.4%. The remaining 7.3% are individuals who are not part of either of these generations and did not proceed with the survey. When it comes to gender, 59,0% are Male, 38,0% are Female, while a minor percentage (3,0%) either identify as non-binary or prefer not to disclose this information. Based on the education level, the majority of the respondents have a Bachelor's Degree or higher (86,3%), while 12,3%

have completed High School, and only 2 participants have either less than High School and another 2 other education levels, registering 0,7% in both sides. When it comes to the employment status of the population that answered this survey, the majority are students (34,7%), and coming in a close second, employed full-time (33,0%). Furthermore, 15,7% are working students, while 8,0% are self-employed; the missing 8,7% account for people who are employed part-time (5,0%), unemployed (2,7%) or retired (1,0%). Additionally, when it comes to monthly income, a big part of the respondents receive between 1,000€-2,000€ (27,0%), followed by under 500€ (22,3%), 500€-1000€ (20,0%), over 2,000€ (18,7%) and with 36 respondents preferring not to answer the question (12,0%).

Table II - Demographics

		Count	Column N %
Generation	Generation Z (born 1997–2012)	281	66,3%
	Millennials (born 1981–1996)	112	26,4%
	Other	31	7,3%
	Total	424	100,0%
Gender	Male	177	59,0%
	Female	114	38,0%
	Non-binary	5	1,7%
	Prefer not to say	4	1,3%
	Total	300	100,0%
Education Level	Less than high-school	2	0,7%
	High school	37	12,3%
	Bachelor's Degree	138	46,0%
	Master's Degree	109	36,3%
	Doctorate or PhD	12	4,0%
	Other	2	0,7%
	Total	300	100,0%
Employment Status	Student	104	34,7%
	Working student	47	15,7%
	Employed part-time	15	5,0%
	Employed full-time	99	33,0%
	Self-employed	24	8,0%
	Unemployed	8	2,7%
	Retired	3	1,0%
	Total	300	100,0%
Monthly Income	Under 500€	67	22,3%
	500€–1,000€	60	20,0%
	1,000€–2,000€	81	27,0%
	Over 2,000€	56	18,7%
	Prefer not to say	36	12,0%
	Total	300	100,0%

4.2.2. Descriptive Statistics of the Indices

Customer Perceptions and Loyalty Dimensions

Customer loyalty and perceptions were analyzed, and the results, in Table III, showed a complex pattern of interaction with Portuguese land-based casinos. The majority of respondents did not form close emotional ties with particular casino locations, as seen by the low emotional connection to casinos (M = 2.27, SD = 1.448). Likewise, the significance of

casino time was evaluated low (M = 2.21, SD = 1.325), indicating that most individuals did not prioritize prolonged casino visits

However, service-related perceptions were significantly more positive. Moderate to high ratings were given to service consistency (M = 4.19, SD = 1.535), and respondents were somewhat confident that casino employees would give them honest answers (M = 3.97, SD = 1.686). Participants' future behavioral intentions were somewhat positive, with moderate to high intentions to return in the future (M = 4.16, SD = 1.727) and a moderate likelihood of recommending casinos to others (M = 3.97, SD = 1.773).

The impact of loyalty programs on repeat visits was moderate among individuals with prior experience (N = 238) (M = 3.62, SD = 1.863), indicating that loyalty programs were not that successful in promoting high customer retention in this group.

Table III - Descriptive Statistics of Customer Perceptions and Loyalty

		Emotional Attachement	Importance Time Spent	Service Consistency	Honest Answer	Loyalty Programs	Recommend	Experience	Return
N	Valid	311	304	303	305	238	302	304	306
	Missing	155	162	163	161	228	164	162	160
Mean		2,27	2,21	4,19	3,97	3,62	3,97	4,04	4,16
Std. Deviation		1,448	1,325	1,535	1,686	1,863	1,773	1,695	1,727
Minimum		1	1	1	1	1	1	1	1
Maximum		7	6	7	7	7	7	7	7

Sensory Environment and Casino Design Perceptions

According to Tables IV and V, of the sensory environment and casino design perceptions, respondents had a high level of awareness regarding the design aspects of casinos and their possible impact. Casino design was highly appreciated, as seen by the highest scores given to visual aspects (M = 5.02, SD = 1.493). With participants evaluating their awareness of how casino environments are meant to impact behavior at 5.12 (SD = 1.701) and recognising that the lack of clocks and windows contributes to timelessness (M = 5.08, SD = 1.667), spatial awareness was remarkably high.

Moderate scores were given to the sensory and atmospheric components. Sound environment assessments were slightly lower at 4.08 (SD = 1.659), whereas lighting effects on mood averaged 4.34 (SD = 1.594). Extended stays were moderately impacted by the casino atmosphere (M = 4.00, SD = 1.686), indicating that environmental design had measurable but not particularly strong effects on visitor behavior.

With machine arrangement impact scored at 4.72 (SD = 1.541) and exploration invitation assessed at 4.39 (SD = 1.521), layout and navigation elements received favorable evaluations. Accessibility and comfort were highly valued (M = 4.59, SD = 1.389), suggesting that Portuguese casinos were successful in creating hospitable physical spaces.

According to theoretical assumptions regarding how temporal perception is affected by casino surroundings, participants reported moderate levels of time distortion when in casinos (M = 4.44, SD = 1.607). Moderate to high perceived control over actions (M = 4.73, SD = 1.540) indicates that most respondents believed they had control in spite of external factors.

Notably, participants reported that environments increased their likelihood of trying new games or staying longer (M = 4.54, SD = 1.593), but they also acknowledged that subtle environmental factors influenced their decisions (M = 4.32, SD = 1.611). According to this pattern, sensitivity to environmental effects and conscious awareness of those influences coexist.

Table IV - Descriptive Statistics of Sensory Environment and Casino Design

		Lightning	Sound	Design	Atmosphere	Layout	Explore	Machine Arrangement	Comfortability
N	Valid	304	303	305	304	301	302	302	301
	Missing	162	163	161	162	165	164	164	165
Mean		4,34	4,68	5,02	4,60	4,27	4,36	4,72	4,58
Median		5,00	5,00	5,00	5,00	5,00	5,00	5,00	5,00
Std. Deviation		1,594	1,659	1,493	1,686	1,597	1,521	1,541	1,389
Minimum		1	1	1	1	1	1	1	1
Maximum		7	7	7	7	7	7	7	7

Table V - Descriptive Statistics of Sensory Environment and Casino Design

		Losing Track of Time	Clocks Absence	Focus	Longer Stays	Control	Decision Influence	New Games	Awareness of Space Influence
N	Valid	298	301	301	301	298	298	300	300
	Missing	168	165	165	165	168	168	166	166
Mean		4,44	5,08	4,85	4,51	4,73	4,32	4,54	5,12
Median		5,00	5,00	5,00	5,00	5,00	5,00	5,00	5,00
Std. Deviation		1,697	1,667	1,532	1,827	1,540	1,611	1,593	1,701
Minimum		1	1	1	1	1	1	1	1
Maximum		7	7	7	7	7	7	7	7

Key Findings and Implications

The general pattern shows that Portuguese casino customers are somewhat influenced by marketing and design tactics, but also demonstrate a sophisticated understanding of them. The information points to a rational rather than emotional connection with casino environments, marked by appreciation for quality design and service without a strong emotional bond or dependence on loyalty programs.

In this sample, sensory environment elements (M = 4.64) were consistently higher than loyalty-based measures (M = 3.55), indicating that environmental design aspects had a greater impact than marketing methods. This result is consistent with the study's theoretical framework, which emphasizes the value of Operant Conditioning concepts in casino settings, in addition to Visual Perception and Attention Theory.

The high awareness scores imply that younger generations (Gen Z and Millennials) who frequent Portuguese casinos are especially aware of attempts to manipulate the environment, which may call for more advanced and open methods of engaging customers.

4.2.3. Hypothesis Testing

Table VI summarizes the correlation analysis for every hypothesis except the forth one. H1a, which predicted that visit frequency would be positively associated with satisfaction with casino loyalty programs. The Pearson correlation of r =.363 ($p<.001$) indicates a moderately significant positive link between visit frequency and loyalty program satisfaction. This shows that users are more inclined to visit casinos more frequently if they give loyalty program perks a higher rating, which strongly supports H1a.
But there is no empirical evidence for H1b. There is no proof that participation in loyalty programs alone raises per-visit expenditure, as evidenced by the weak and non-significant association between loyalty program satisfaction and casino spending (r =.054, p =.414). This suggests that while loyalty programs effectively drive visit frequency, they do not significantly influence spending behavior during individual casino visits.

Analyzing promotional incentives shows trends that are comparable to those found in loyalty programs. H2a is supported by the somewhat positive correlation between promotional incentives and visit frequency (r =.298, p <.001). Participants who have a more positive perception of promotional offers are more likely to frequent casinos.

Promotional incentives and per-visit spending had a small but significant connection for H2b ($r = .156$, $p < .05$). The effect size is significantly smaller than the association with visit frequency, indicating that promotional incentives have a stronger influence on promoting repeat visits than on raising spending per session, even though this offers some support for H2b.

H3a is supported by the somewhat positive association between gamification involvement and visit frequency ($r = .287$, $p < .001$). More frequent casino visits are shown by participants who are more involved with gamification elements (such as challenges, point systems, and interactive features).

But there is little support for H3b. There is a modest and marginally significant association ($r = .142$, $p < .05$) between gamification involvement and per-visit spending. This suggests that whereas gamification strategies work well to promote return visits, they have no direct effect on consumer spending patterns.

Table VI - Hypothesis Testing

		Loyalty Programs	Visit Frequency	Casino Spendings
Loyalty Programs	Pearson Correlation	1	,363**	,054
	Sig. (2-tailed)		<,001	,414
	N	238	234	233
Visit Frequency	Pearson Correlation	,363**	1	,125*
	Sig. (2-tailed)	<,001		,030
	N	234	301	300
Casino Spendings	Pearson Correlation	,054	,125*	1
	Sig. (2-tailed)	,414	,030	
	N	233	300	300

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table VII displays the correlation matrix for H4a. According to this theory, the distortion of time perception would be positively correlated with the intensity of sensory stimulation. There is a strong and significant association between Track of Time (the subjective impression of time distortion) and all sensory design aspects. The Pearson coefficients, which are all $p < .001$, specifically span from .333 (Lighting) to .426 (Sound), with Layout (.389) and Atmosphere (.401) displaying similarly strong associations. These results offer strong evidence in favor of H4a, showing that in casino settings, improved sensory surroundings are consistently associated with increased temporal distortion.

Longer session duration was predicted by H4b to positively correlate with distortion of time perception. H4b is strongly supported by the research, which shows a substantial positive association between Track of Time and Longer Stays (r =.550, p <.001). Significantly longer gambling sessions are reported by those who suffer from more time distortion in casino settings.

For H4c, there is a somewhat positive link between time perception distortion and casino spending (r =.312, p <.001). By showing that participants who suffer from temporal distortion also typically spend more money when they visit casinos, this supports H4c. According to the link, sensory design components and increased spending behavior are mediated by changes in time perception.

Table VII - Hypothesis Testing

		Design	Lightning	Atmosphere	Sound	Layout	Track Of Time	Longer Stays	Casino Duration	Casino Spendings
Design	Pearson Correlation	1	,616**	,660**	,682**	,330**	,382**	,385**	,236**	,126*
	Sig. (2-tailed)		<,001	<,001	<,001	<,001	<,001	<,001	<,001	,029
	N	305	304	304	303	301	298	301	299	300
Lightning	Pearson Correlation	,616**	1	,660**	,655**	,332**	,333**	,300**	,207**	,152**
	Sig. (2-tailed)	<,001		<,001	<,001	<,001	<,001	<,001	<,001	,009
	N	304	304	303	303	300	297	300	298	299
Atmosphere	Pearson Correlation	,660**	,660**	1	,660**	,375**	,470**	,417**	,240**	,165**
	Sig. (2-tailed)	<,001	<,001		<,001	<,001	<,001	<,001	<,001	,004
	N	304	303	304	302	300	297	300	298	299
Sound	Pearson Correlation	,682**	,655**	,660**	1	,261**	,426**	,385**	,295**	,195**
	Sig. (2-tailed)	<,001	<,001	<,001		<,001	<,001	<,001	<,001	<,001
	N	303	303	302	303	299	296	299	297	298
Layout	Pearson Correlation	,330**	,332**	,375**	,261**	1	,240**	,298**	,068	-,012
	Sig. (2-tailed)	<,001	<,001	<,001	<,001		<,001	<,001	,241	,834
	N	301	300	300	299	301	297	300	298	299
Track Of Time	Pearson Correlation	,382**	,333**	,470**	,426**	,240**	1	,550**	,378**	,239**
	Sig. (2-tailed)	<,001	<,001	<,001	<,001	<,001		<,001	<,001	<,001
	N	298	297	297	296	297	298	298	296	297
Longer Stays	Pearson Correlation	,385**	,300**	,417**	,385**	,298**	,550**	1	,333**	,275**
	Sig. (2-tailed)	<,001	<,001	<,001	<,001	<,001	<,001		<,001	<,001
	N	301	300	300	299	300	298	301	299	300
Casino Duration	Pearson Correlation	,236**	,207**	,240**	,295**	,068	,378**	,333**	1	,430**
	Sig. (2-tailed)	<,001	<,001	<,001	<,001	,241	<,001	<,001		<,001
	N	299	298	298	297	298	296	299	299	298
Casino Spendings	Pearson Correlation	,126*	,152**	,165**	,195**	-,012	,239**	,275**	,430**	1
	Sig. (2-tailed)	,029	,009	,004	<,001	,834	<,001	<,001	<,001	
	N	300	299	299	298	299	297	300	298	300

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Multiple Regression Analysis for Visit Frequency

For the regression predicting Visit Frequency from Monthly Income, Gender, the Sensory Environment Composite Scale, and Loyalty Programs, Table VIII, presents the Model Summary. Overall, the model accounts for 13.8% of the variance in visit frequency (R = .371, R^2 = .138, Adjusted R^2 = .123) and is significant (F(4, 228) = 9,110, p < .001). So, income,

gender, sensory environment, and loyalty program feelings, play a significant role in determining how often people go to land-based casinos.

Table VIII - Regression Model Summary for Visit Frequency

					Change Statistics				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	,371[a]	,138	,123	,767	,138	9,110	4	228	<,001

[a] Predictors: (Constant), Monthly Income, Gender, Sensory Environment Composite Scale, Loyalty Programs

The model's strong fit is confirmed by Table IX, on the list of tables, ANOVA, which shows a highly significant F statistic ($p < .001$) due to the regression sum of squares (21.462) being significantly bigger than the residual sum of squares (134.289). Meaning that the predictors, together, significantly explain how often people visit casinos.

Table IX - ANOVA Results for Visit Frequency Regression[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21,462	4	5,365	9,110	<,001[b]
	Residual	134,289	228	,589		
	Total	155,751	232			

[a] Dependent Variable: Visit Frequency

[b] Predictors: (Constant), Monthly Income, Gender, Sensory Environment Composite Scale, Loyalty Programs

The coefficients for each predictor are shown in Table X, which can be found on the list of tables. Loyalty Programs emerges as the only significant predictor of visit frequency ($\beta = .337$,$t = 5.018$,$p < .001$), suggesting that a one-unit rise in loyalty programs satisfaction is linked with a .147 increase in the frequency index. The Sensory Environment Composite variable does not reach significance ($\beta = 0.061$, $p = 0.364$). Multicollinearity diagnostics show VIFs below 1.20, confirming the absence of collinearity among the predictors.

Table X - Coefficients for Visit Frequency Regression[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	,961	,259		3,704	<,001		
	Loyalty Programs	,147	,029	,337	5,018	<,001	,840	1,190
	Sensory Environment Composite Scale	,039	,043	,061	,910	,364	,854	1,171

[a] Dependent Variable: Visit Frequency

These findings show that loyalty-program involvement is a unique and reliable predictor of the frequency of individuals' visits to Portuguese land-based casinos when assessed simultaneously with sensory design and demographics.

Multiple Regression Analysis for Casino Spendings

To forecast casino spending based on monthly income, gender, the sensory environment composite scale, and loyalty programs, Table XI, on the list of tables, presents the model summary. Overall, the model accounts for 13.5% of the variance in spending (R =.367, R2 =.135, Adjusted R2 =.119) and is significant (F(4, 227) = 8.833, p <.001). This basically suggests that while income and sensory perceptions help explain why some people spend more than others, once those two factors are taken into consideration, loyalty program satisfaction and gender have no further predictive power. When combined, income and the sensory experience explain almost 14% of the variations in expenditure, indicating that they have a small but significant impact on how much patrons bet in Portuguese land-based casinos.

Table XI - Regression Model Summary for Casino Spendings

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,367[a]	,135	,119	,990	,135	8,833	4	227	<,001

[a] Predictors: (Constant), Monthly Income, Gender, Sensory Environment Composite Scale, Loyalty Programs

The model's fit is confirmed by Table XII, shown of the list of tables, which shows a highly significant F statistic (p <.001) since the regression sum of squares (34.612) is greater than the residual sum of squares (222.383). This suggests that when taken as a whole, the predictors provide a significant explanation for participant expenditure variations.

Table XII - ANOVA Results for Casino Spendings Regression[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	34,612	4	8,653	8,833	<,001[b]
	Residual	222,383	227	,980		
	Total	256,996	231			

[a] Dependent Variable: Casino Spendings

[b] Predictors: (Constant), Monthly Income, Gender, Sensory Environment Composite Scale, Loyalty Programs

The distinct impact of each predictor is seen in Table XIII, on the list of tables. A one-unit rise in favorable sensory design impressions is correlated with a.183-unit increase in spending, indicating that the Sensory Environment Composite Scale is the only significant driver of spending (β =.220, t = 3.296, p <.001). In contrast, Loyalty Programs is not significant (β = 0.056, p = 0.365). VIF values remain below 1.20, indicating no multicollinearity between the predictors. These results show that while visit frequency is driven by loyalty-program satisfaction, participants' income and the sensory environment have the biggest effects on how much they spend when they visit a casino.

Table XIII - Coefficients for Casino Spendings Regression[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	,588	,336		1,747	,082		
	LoyaltyPrograms	,004	,038	,007	,106	,915	,842	1,187
	Sensory Environment Composite Scale	,183	,056	,220	3,296	,001	,856	1,169

[a] Dependent Variable: CasinoSpendings

4.3. Summary of Research Findings

Using a mixed-methods approach, this study examined how marketing tactics and environmental design affect consumer behavior at Portuguese land-based casinos. A comprehensive understanding of consumer experiences, opinions, and engagement variables is obtained by combining quantitative survey results with qualitative information from focus groups and an expert interview.

Customers' emotions and perceptions of time are greatly influenced by sensory factors such as lighting and sound, which frequently result in a mistaken sense of duration of visits, according to qualitative findings. Although responses differed depending on individual gambling results, participants characterized the casino environment as luxurious and socially engaging. Perceived as encouraging exploration and extended visits, the spatial arrangement gently guided behavior without explicitly limiting autonomy. Intentional sensory engineering and spatial psychology elements in casino design that strive to balance stimulating environments with responsible gambling measures were highlighted in the expert interview, which supported these findings. While non-gaming events expanded the venues' appeal beyond gambling alone, digital innovation and "phygital" integration were acknowledged as crucial for attracting younger audiences and strengthening emotional connections.

Quantitative results revealed a complex relationship between casino marketing/design elements and customer perceptions. Participants' emotional attachment to particular casinos was modest, despite their moderate awareness and appreciation of sensory design such as layout, music and visual elements. Although they did not result in significant customer dependence, loyalty programs had a moderate effect on return visits. In line with theoretical frameworks that emphasize operant conditioning and visual attention theories, sensory environment components were consistently regarded as having a stronger influence on behavior than loyalty-based marketing. Despite having a high sense of personal control, respondents admitted that external cues subtly affect their gambling decisions and indicated moderate temporal distortion.

Together, these findings support the study's hypothesis by demonstrating that enhanced sensory design elements contribute to customer immersion, longer gambling sessions, and increased spending through emotional engagement and altered time perception. Similarly, by encouraging consumer interaction, loyalty programs, gamification, and promotional incentives help to improve gambling frequency and expenditure. The evidence does, however, also point to a sophisticated consumer understanding of marketing and environmental impacts, especially among younger generations, which reflects a somewhat logical rather than emotional relationship to casino experiences.

4.4. Contributions to Existing Theories

Several important theoretical additions to the existing literature on marketing theory, environmental psychology, and consumer behavior in the setting of casinos are made by this study. The research adds to and combines well-established theoretical frameworks while offering new perspectives on how they interact together.

Extension of Operant Conditioning Theory

By demonstrating its applicability in complex, multisensory gambling environments, this study significantly expands the use of operant conditioning theory beyond its conventional applications. This study demonstrates how operant conditioning principles work in complex, real-world environments where multiple reinforcement schedules operate simultaneously, whereas Skinner's original research focused on controlled laboratory settings with simple stimulus-response relationships (Skinner et al., 2014).

The study offers concrete evidence supporting H1a: satisfaction with casino loyalty programs is positively associated with visit frequency. Variable‑ratio reinforcement schedules embedded in loyalty programs drive repeat visits, confirming that unpredictable rewards foster engagement in naturalistic service settings. In contrast, H1b, the prediction that loyalty‑program satisfaction would increase per‑visit spending, received no support, indicating that operant conditioning mechanisms can differentially influence distinct behavioral dimensions. This study extends on the claim made by Delfabbro et al. (2023) that *"gambling behavior is likely to be strongly influenced by operant learning principles"* (p. 1) by showing that such programs do not significantly influence per-session spending. This suggests that operant conditioning mechanisms function differently across different behavioral dimensions. This discovery contributes to a more sophisticated comprehension of how reward schedules influence certain aspects of consumer behavior while having no effect on others.

Additionally, it shows how operant conditioning theory may be expanded to include multi-modal reinforcement systems by combining sensory reinforcements with conventional reward mechanics, such as flashing lights, celebratory sounds, and immersive surroundings. According to Skinner, *"The reinforcement which develops skill must be immediate. Otherwise, the precision of the differential effect is lost"* (Skinner et al., 2014, p. 96). This extension is particularly valuable for understanding consumer behavior in experiential service environments beyond gambling contexts.

The study also supports Skinner's finding on gambling establishments, *"The efficacy of such schedules in generating high rates has long been know to the proprietors of gambling establishments. Slot machines, roulette wheels, dice cages, horse races, and so on pay off on a schedule of variable-ratio reinforcement"* (Skinner et al., 2014, p. 104), while extending this understanding to modern loyalty program applications.

Enhancement of Visual Perception and Attention Theory

This research makes important contributions to Visual Perception and Attention Theory by validating its applicability in complex commercial environments and extending its predictive power regarding behavioral outcomes. Although the original Feature Integration Theory by Treisman and Gelade (1980) was mainly concerned with cognitive processes, this study shows how visual attention mechanisms immediately result in quantifiable behavioral changes.

The results provide substantial support for the theory's hypotheses on the stages of focused attention and pre-attentive processing. Treisman and Gelade (1980) state that *"objects are identified separately and only at a later stage, which requires focused attention"*, whereas *"features are registered early, automatically, and in parallel across the visual field"* (p. 98), during the pre-attentive stage. The study adds empirical support for the behavioral effects of visual attention processes by showing strong relationships between sensory design components and both subjective experiences (time distortion) and objective behaviors (session duration and spending).

Building on Lavie's (1997) work that *"the visual features of unattended objects are registered separately, in independent representational maps that code values on various stimulus dimensions (e.g., sizes, colors, orientations). The conjunction of features into multidimensional objects [...] is mediated by focused attention"* (p. 543). This study contributes to the theory by showing how motion and color-based attention capture operates in naturalistic settings where multiple competing stimuli exist simultaneously. Supporting recent research by Jusufi and Andersson (2025) that *"motion and color are highly effective in guiding attention, with participants achieving near-perfect accuracy"* in complex visual environments, whereas *"shape detection was notably less accurate, with greater variability in*

responses" (p. 464), this research demonstrates that casino design elements leverage these pre-attentive processing mechanisms effectively.

According to the study, visual attention mechanisms continue to affect behavior even if there is a high cognitive knowledge of environmental manipulation tactics, especially among younger generations. This suggests that these processes function at both the conscious and unconscious levels.

Integration of Theoretical Frameworks

This study makes a significant theoretical contribution by successfully combining the ideas of visual perception and operant conditioning into a single conceptual framework. This study shows how these theories work together to affect customer behavior, whereas previous research usually looked at them separately.

The study demonstrates that while reinforcement schedules preserve longer-term behavioral patterns, visual and auditory cues act as instantaneous reinforcers. The findings of Finlay et al. (2009) that *"participants also indicated that they would stay longer and bet more money in the playground when the music was present"* (p. 527) are supported by this integration, which offers a more thorough understanding of how environmental and marketing factors combine to influence consumer behavior. It also provides a theoretical foundation for analyzing multi-modal influence strategies in service environments.

Contributions to the 7Ps Marketing Mix Framework

By offering empirical support for the relative significance of various marketing components in casino situations, this study expands on the 7Ps Marketing Mix concept. The research challenges conventional beliefs about the importance of promotional strategies by showing that Physical Evidence (sensory environment elements) consistently has stronger effects on consumer behavior than Promotion (loyalty-based marketing), building on Ryńca and Ziaeian's (2021) claim that *"through these variables, marketers can establish an effective marketing plan for the organization"* (p. 2).

By demonstrating how the 7Ps components interact in immersive service environments, the study advances marketing theory and expands on Tuguinay et al.'s (2023) thorough framework for casino marketing. Their conclusion that *"grandiose designs and architectural*

structures also attract and retain casino customers" (p. 348) is especially supported by the research, which shows that environmental design elements (physical evidence) can have a greater impact on consumer engagement and spending patterns than conventional promotional tools.

This study also supports the claim made by Tuguinay et al. (2023) that *"product diversification is a strategy many casinos practice to generate sales and improve firm performance. This extends to geographical and brand diversification allowing casino operators to widen access to potential customers"* (p. 341), while providing empirical evidence for the effectiveness of these diversification strategies.

4.5. Implications for Practice

For Portuguese casino operators, marketing professionals, and regulatory agencies, the results offer practical information. Since sensory design elements like lighting, sound, and spatial layouts have higher correlations with consumer spending than traditional loyalty programs alone, casino management should place a higher priority on making strategic investments in these areas. Instead of depending on conventional influence tactics, casinos should embrace more transparent and genuine interaction strategies, as younger consumers are more educated in their awareness of environmental manipulation techniques.

In order to maximize loyalty programs through integration with sensory aspects, marketing departments should rebalance their budget allocation and concentrate more on designing environmental experiences. In order to optimize revenue impact, casinos should combine membership benefits with improved environmental experiences, as loyalty programs largely influence visit frequency but not per-visit spending. Regulatory organizations should recognize that aspects of environmental design have quantifiable behavioral impacts and think about integrating transparency standards for atmospheric affects into frameworks for ethical marketing.

For Generation Z and Millennial audiences in particular, practical implementation should concentrate on developing "phygital" experiences that combine digital technology with improved physical surroundings. According to these findings, sophisticated environmental psychology will become more important for casino operations in Portugal's regulated market than aggressive promotional strategies. To achieve this, marketing, design, and operations

teams will need to work together across functional boundaries to create seamless customer experiences that increase revenue and satisfaction.

5. Conclusion

This dissertation has shown that, although through different channels and to differing degrees, environmental design features and marketing tactics in Portuguese land-based casinos have a considerable impact on consumer behavior. Both predictions were successfully supported by the study, which showed that while loyalty programs are the main driver of visit frequency, elements of the sensory environment, such as lighting, sound, and spatial layout, have a greater impact on spending patterns and session length. A sophisticated customer base was identified by the mixed-methods approach, especially among younger generations who show a high level of awareness of environmental manipulation strategies but are still vulnerable to their subtle effects.

The study's theoretical contributions go beyond the Portuguese context; it offers empirical support for the integration of Visual Perception and Attention Theory and Operant Conditioning Theory in complex business environments. The results show that ambient design components are more effective at promoting revenue-generating behaviors than promotional methods, challenging traditional assumptions regarding the importance of promotional strategies in casino marketing. According to this study, the Portuguese casino sector functions within a distinct cultural and legal context where sophisticated behavioral influence mechanisms and responsible gambling initiatives coexist, opening up possibilities for ethically responsible yet successful consumer engagement tactics. The implications reach into more general service sectors, where psychological design concepts and immersive settings can be used to improve client experiences while upholding moral standards and consumer consciousness.

The analysis confirms that player engagement is most strongly impacted by sensory design, specially lighting schemes, ambient soundscapes, and sensible spatial layouts. These elements also lead to longer session durations and more spending per visit. Although they have little effect on the total amount spent on a single visit, loyalty programs greatly boost the number of times visitors visit the casino. This distinction suggests that environmental enhancements are best leveraged to maximize immediate revenue, whereas tailored loyalty incentives serve to

cultivate repeat patronage over time. These observations collectively advise casino operators to strike a balance between strategically planned loyalty benefits and investments in morally sound sensory-environment enhancements in order to attain both immediate performance and long-term client retention.

5.1. Limitations of the Study

It is important to recognize a number of limitations when interpreting the research's conclusions. First, the majority of the sample was made up of Millennials (26.4%) and Generation Z (66.3%), which may restrict the findings' applicability to older demographic groups that can react differently to marketing tactics and environmental cues. Although the convenience sample method was needed to reach casino customers, it might have resulted in selection bias in favor of more active or regular casino clients who were more inclined to take part in the research.

The cross-sectional research design limits the ability to identify causal relationships or track behavioral changes over long periods of time by only offering a snapshot of consumer attitudes and behaviors at a particular moment in time. A longitudinal study might have shed more light on how customers' reactions to marketing and environmental cues change over time. Additionally, the study focused exclusively on Portuguese land-based casinos, which operate within specific regulatory and cultural contexts that may not be directly applicable to other jurisdictions with different gambling laws, cultural attitudes toward gambling, or casino operational models.

Potential response bias and social desirability effects are introduced by the use of self-reported data, especially when it comes to gambling frequency, spending amounts, and time perception. It's possible that participants overreported or underreported certain activities, and that their memories of their experiences in the setting were shaped more by overall impressions or later encounters than by detailed observations. Although the focus group's written structure encouraged more thoughtful answers, it might have prevented the depth of spontaneous conversation and peer engagement that characterizes speaking focus groups.

5.2. Recommendations for Future Research

Longitudinal studies that follow the same subjects over lengthy stretches of time should be given priority in future research in order to better understand how reactions to marketing tactics and environmental design change with repeated exposure and shifting living situations. This research might show whether the effects are long-lasting or if adaptation sets in, necessitating ongoing changes to the marketing and environmental strategies used by casinos. The moderating effects of individual differences, such as personality traits, cognitive style, gambling experience, and socioeconomic factors, on vulnerability to marketing and environmental influences should be the focus of future research. Knowing these moderating elements could help identify vulnerable populations who need extra protection while also guiding more ethical and focused marketing strategies.

Finally, future research could focus on the emergence of "phygital" casino experiences, which combine digital and physical components. Research should look at how digital integration impacts consumer involvement, time perception, and spending patterns in physical casinos, as well as how conventional environmental psychology concepts translate to hybrid settings.

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Appendices

Appendix A - Online Questionnaire

Dear participant,

My name is Francisco Sousa and I am a final-year Master's student in Marketing at ISCTE Business School. This survey is part of a research project examining how the design and marketing strategies of land-based casinos in Portugal influence customer behavior, emotional engagement, and perceived autonomy. The goal is to better understand how sensory features, spatial layout, loyalty programs, and psychological cues shape both frequent and casual visitors' experiences within casino environments.

All responses are anonymous and confidential. The survey takes approximately 6-8 minutes to complete. Your participation is entirely voluntary, and your insights will contribute to improving the ethical and experiential design of casino environments.

If you have any questions or concerns about this survey, please feel free to contact me at flgmw@iscte-iul.pt.

By continuing with the survey, you confirm that you are 18 years of age or older, you understand the purpose of the study and you consent to participate anonymously.

Thank you for your participantion!

1 - Filtering Questions

Do you confirm that you have read and understood the above information and agree to participate in this survey?

- ○ Yes
- ○ No

Do you belong to any of these generations?

- ○ Generation Z (born 1997–2012)
- ○ Millennials (born 1981–1996)
- ○ No

Are you 18 years of age or older?

- ○ Yes
- ○ No

Have you played in a physical casino, in the past year?

- ○ Yes
- ○ No

2 - Customer Perception and Loyalty

I am emotionally attached to the casino I visit (Scale: 1 = Strongly Disagree, 7 = Strongly Agree).

- ○ 1 - Strongly Disagree
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 - Strongly Agree

Time spent at the casino is important to me (Scale: 1 = Strongly Disagree, 7 = Strongly Agree).

- ○ 1 - Strongly Disagree
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 - Strongly Agree

The service I receive at the casino is consistent every time I visit (Scale: 1 = Strongly Disagree, 7 = Strongly Agree).

- ○ 1 - Strongly Disagree
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 - Strongly Agree

If I ask a question at the casino, I believe I will receive an honest answer (Scale: 1 = Strongly Disagree, 7 = Strongly Agree).

- ○ 1 - Strongly Disagree
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 - Strongly Agree

Special events or offers through the loyalty program make me want to return (Scale: 1 = Strongly Disagree, 7 = Strongly Agree). *If you have participated in a casino's loyalty or rewards program, please answer the following. If not, you may skip this section.*

- ○ 1 - Strongly Disagree
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 - Strongly Agree

I would recommend a certain casino to others (Scale: 1 = Strongly Disagree, 7 = Strongly Agree).

- ○ 1 - Strongly Disagree
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 - Strongly Agree

I enjoy telling people about my experiences at a casino (Scale: 1 = Strongly Disagree, 7 = Strongly Agree).

- ○ 1 - Strongly Disagree
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 - Strongly Agree

I plan to return to a casino in the future (Scale: 1 = Strongly Disagree, 7 = Strongly Agree).

- ○ 1 - Strongly Disagree
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 - Strongly Agree

3 - Sensory Environment and Casino Design

The lighting in the casino positively influences my mood (Scale: 1 = Strongly Disagree, 7 = Strongly Agree).

- ○ 1 - Strongly Disagree
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 - Strongly Agree

The soundscape (e.g., music, machine sounds) adds to my excitement (Scale: 1 = Strongly Disagree, 7 = Strongly Agree).

- ○ 1 - Strongly Disagree
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 - Strongly Agree

The visual design of the casino (e.g., colors, decor) is attractive (Scale: 1 = Strongly Disagree, 7 = Strongly Agree).

- ○ 1 - Strongly Disagree
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 - Strongly Agree

The atmosphere makes me want to stay longer (Scale: 1 = Strongly Disagree, 7 = Strongly Agree).

- ○ 1 - Strongly Disagree
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 - Strongly Agree

The layout of the casino makes it easy to navigate (Scale: 1 = Strongly Disagree, 7 = Strongly Agree).

- ○ 1 - Strongly Disagree
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 - Strongly Agree

I feel invited to explore new areas within the casino (Scale: 1 = Strongly Disagree, 7 = Strongly Agree).

- ○ 1 - Strongly Disagree
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 - Strongly Agree

The arrangement of machines or tables influences the path I take (Scale: 1 = Strongly Disagree, 7 = Strongly Agree).

- ○ 1 - Strongly Disagree
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 - Strongly Agree

The space feels comfortable and welcoming (Scale: 1 = Strongly Disagree, 7 = Strongly Agree).

- ○ 1 - Strongly Disagree
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 - Strongly Agree

I lose track of time while inside the casino (Scale: 1 = Strongly Disagree, 7 = Strongly Agree).

- ○ 1 - Strongly Disagree
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 - Strongly Agree

The absence of windows or clocks contributes to my sense of timelessness (Scale: 1 = Strongly Disagree, 7 = Strongly Agree).

- ○ 1 - Strongly Disagree
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 - Strongly Agree

The environment makes it easy to focus only on the games (Scale: 1 = Strongly Disagree, 7 = Strongly Agree).

- ○ 1 - Strongly Disagree
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 - Strongly Agree

I already stayed longer than I had originally planned (Scale: 1 = Strongly Disagree, 7 = Strongly Agree).

- ○ 1 - Strongly Disagree
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 - Strongly Agree

I feel fully in control of my actions in the casino (Scale: 1 = Strongly Disagree, 7 = Strongly Agree).

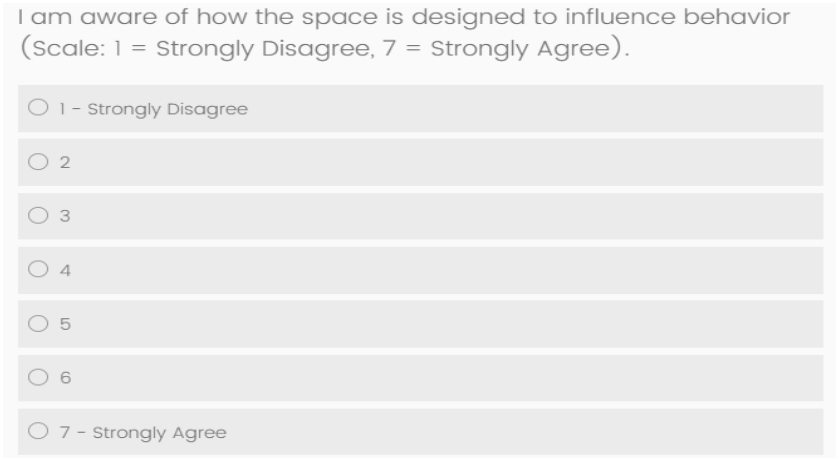
- ○ 1 - Strongly Disagree
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 - Strongly Agree

The design of the space subtly influences my decisions without me noticing (Scale: 1 = Strongly Disagree, 7 = Strongly Agree).

- ○ 1 - Strongly Disagree
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 - Strongly Agree

The environment makes me more likely to try a new game or stay longer (Scale: 1 = Strongly Disagree, 7 = Strongly Agree).

- ○ 1 - Strongly Disagree
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 - Strongly Agree



4 - Gambling Behavior and Demographics





On average, how much do you usually spend during a casino visit (Include games, food, drinks, etc.)?

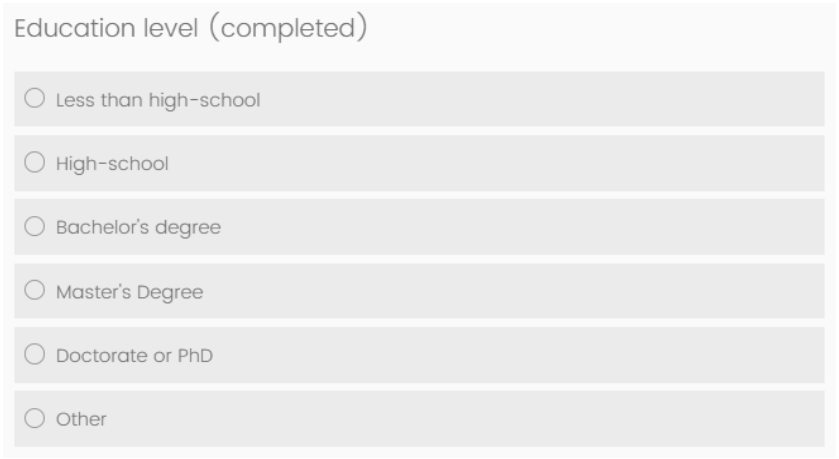
- ○ Less than 20€
- ○ 20€–50€
- ○ 50€–100€
- ○ More than 100€
- ○ Prefer not to say

Which types of casino games have you played before?

- ☐ Slot machines
- ☐ Table games with live dealers (e.g., roulette, blackjack, poker)
- ☐ Electronic table games (e.g., digital roulette, blackjack terminals)
- ☐ Phygital or touchscreen-based games (e.g., touch slot machines, digital betting kiosks)
- ☐ None, I was there for other reasons

Gender

- ○ Male
- ○ Female
- ○ Non-binary / third gender
- ○ Prefer not to say







Appendix B - Interviews

1 - Focus Group

Section 1: General Atmosphere and Perception

1. From the time you arrive until you leave, how would you describe the various individuals, locations, or technologies you interact with during a normal casino visit? In that journey, what catches your attention the most?
2. What is the first thing that catches your attention about the environment of a casino when you enter? (Example: lights and slot machine noises, people cheering, the music, …)
3. How would you describe the feeling or mood that the casino design creates for you?

Section 2: Sensory Experience (Lighting, Sound, Scent)

4. How do things like music, lighting, and scent affect your excitement or mood?
5. Are there any sensory elements that entice you to play more, such as flashing lights or sounds of wins?

Section 3: Digital and Phygital Components

6. Have you ever engaged with any digital or interactive technologies in a casino, like digital roulette, interactive slots, or other electronic table games? If so, how did you find the experience, and what influenced your choice to use those instead of traditional, in-person games?
7. Have you ever felt more engaged or entertained in a casino because of digital features like touchscreen games built into the environment?

Section 4: Space Design and Flow

8. How does the layout of the casino affect how long you stay or what games you visit?
9. Do you think the design encourages you to move in certain directions or stay longer in certain areas?

Section 5: Emotion, Memory, and Time

10. In a casino, have you ever lost track of time? What features, in your opinion, played a part in that?
11. Do you associate casinos with specific emotions or memories, excitement, luxury, escape? Why?

Section 6: Interaction & Customer Agency

12. Do you feel in control of your actions in a casino, or does the design subtly influence your choices? (Spatial flow, lightning and visual cues, sound and music)

Section 7: Open Question

13. In your opinion, what makes a casino environment *memorable* or *enjoyable*? What would improve it?

2 - Expert Interview

Section 1: Spatial & Sensory Design

1. Could you share how much thought goes into designing the casino environment, particularly elements like layout, lighting, and sound, in shaping guest experience and comfort?

2. Are there any specific design choices you use, like omitting clocks, adjusting lighting, or using scents, that help enhance the time guests choose to spend in the gaming areas?

Section 2: Customer Psychology & Experience

3. What important human, physical, and digital touchpoints did you emphasize in defining the customer journey, from entry to exit, based on your casino management experience? Which of these, in your opinion, had the biggest impact on visitor pleasure or behavior?

4. From your perspective, how does the atmosphere of the casino contribute to creating a memorable and enjoyable guest experience?

5. How do you strike a balance between promoting ethical, responsible gaming and still offering an exciting and immersive environment?

Section 3: Digital Integration & Phygital Strategy

6. How have digital or interactive technologies, such as electronic table games or modern slot machines, impacted guest engagement, dwell time, or spending patterns?

7. Have any digital features or innovations surprised you in terms of how effective (or perhaps less effective) they've been in enhancing the customer experience?

Section 4: Design Philosophy & Brand Identity

8. Given Madeira's unique cultural and geographic setting, how does the local environment influence your approach to designing the guest experience at the casino?

9. Do you see Madeira Casino as more of an entertainment destination or a traditional gambling venue, and how does your design philosophy support that vision?

Section 5: Open Question

10. In your view, what makes a casino atmosphere truly engaging, the kind that keeps people coming back not just to gamble, but to enjoy the full experience?