

Digital Gambling Marketing and Consumer Behavior in South Africa: Insights from the Digital Gambling Influence Framework

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Abstract

This study investigates the impact of digital gambling marketing on consumer behaviour, emphasising the interplay among AI-driven personalisation, social media influence, cognitive biases, ethical considerations, and regulatory governance. A narrative literature review was conducted to synthesise evidence on how digital marketing strategies shape consumer engagement, normalise gambling behaviours, and amplify risks among vulnerable populations. Complementing this, a case study of South Africa analysed recent shifts in gambling trends and the sector's evolving dynamics. Findings reveal that the South African gambling industry has transitioned from traditional casino-based revenue to predominantly digital and mobile betting, illustrating how technological transformation drives consumer behaviour and industry growth. The literature indicates that algorithmic targeting and influencer-led promotions intensify exposure by exploiting cognitive biases, such as the illusion of control and reward anticipation. At the same time, gaps in regulatory oversight and inconsistent enforcement exacerbate potential harm. The study introduces the Digital Gambling Influence Framework (DGIF), a novel conceptual model that integrates marketing stimuli, user vulnerability, ethical boundaries, and governance as interdependent factors shaping individual and societal outcomes. The DGIF offers a theoretical contribution by bridging consumer behaviour, digital ethics, and regulatory governance, providing a structured lens for understanding the socio-technical dynamics of digital gambling. Practical implications include the need for adaptive regulations, responsible marketing practices, and empirical validation of conceptual frameworks to mitigate harm while sustaining consumer engagement.

Keywords: Digital Gambling Marketing, AI Personalisation, Social Media Influence, Cognitive Biases, Ethical Marketing Frameworks.

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I. INTRODUCTION

Advertising has long been central to the gambling industry, shaping its visibility, competitiveness, and profitability. Digital gambling marketing exerts a powerful influence on consumer perceptions and behaviours, affecting engagement patterns and potentially intensifying problem gambling. The impact of these strategies, however, depends on individual, environmental, and product-specific factors (Ahmed et al., 2025). Online sports betting advertising amplifies risks by normalising frequent betting and targeting vulnerable populations, while sponsorship and advertising in professional sports leverage emotional connections to foster loyalty (Al Harbi et al., 2024; Avila, 2021). Emerging marketing practices are increasingly sophisticated, interactive, and data-driven, emphasising positive framing of risky bets while providing minimal harm-reduction messaging (Bhati et al., 2023).

Historically, gambling promotion relied on mass media such as television, radio, and print, which delivered broad messaging with limited audience segmentation. The rise of social media has enabled subtle, targeted advertising that normalises gambling, particularly among younger and vulnerable audiences, raising ethical and regulatory concerns (Bokhour et al., 2018). Evidence from South-East Nigeria demonstrates that television gambling advertisements influence student betting behaviours, highlighting the media's role in shaping social norms (Booth et al., 2016). In the digital era, continuous engagement through online platforms, mobile applications, and data-driven strategies has transformed these dynamics.

In South Africa, the gambling industry generated approximately ZAR 59 billion in gross gaming revenue in 2024, with online betting driving much of the post-COVID growth (Buljac-Samardzic et al., 2020). Digital marketing predominantly targets sports bettors, particularly young men, reinforcing normalisation and exposure, though precise causal effects remain underexplored (Ahmed et al., 2025). Algorithmically driven, personalized advertising optimizes engagement by leveraging behavioral profiles, raising ethical concerns about autonomy and potential manipulation.

The integration of AI, Big Data analytics, and influencer networks has further redefined digital gambling marketing, reshaping information diffusion and consumer behaviour while amplifying risks such as algorithmic bias, misinformation, and user vulnerability (Chandawarkar et al., 2024; Colldén & Hellström, 2018). Unlike traditional media, digital advertisements actively interact with users through notifications, gamification, and endorsements, embedding gambling messages into daily online experiences. These developments underscore the need for integrated ethical and regulatory frameworks that align marketing practices with societal values, public health priorities, and consumer protection objectives.

Despite growing evidence on the psychological and social effects of gambling marketing, the AI-driven and algorithmic dimensions of digital strategies remain underexplored. This study addresses this gap by examining how digital gambling marketing shapes consumer behavior in South Africa, focusing on personalized advertising, influencer networks, and cognitive biases. The study aims to develop the Digital Gambling Influence Framework (DGIF) to offer theoretical and practical insights for regulators, policymakers, and the industry to mitigate harm while sustaining responsible engagement.

II. LITERATURE REVIEW

Research consistently demonstrates that gambling advertising exerts a significant influence on online gambling behaviour, driving increased engagement, risk-taking, and problem gambling, particularly among younger or otherwise vulnerable populations (Counte et al., 2019).

Longitudinal evidence from Finland indicates that exposure to online gambling advertising is associated with greater financial harm and heightened problem gambling severity, disproportionately affecting younger males and individuals engaging with offshore platforms (Dowd & Laugesen, 2020). Social media influencers amplify these effects, subtly normalising gambling behaviours among children and adolescents despite existing regulatory safeguards (Edgman-Levitan & Schoenbaum, 2021). Collectively, this body of evidence underscores the dual role of marketing in shaping both consumer behaviour and societal norms, highlighting the critical importance of responsible advertising practices (Etges et al., 2023).

Gambling marketing has shifted dramatically from traditional emotional appeals and mass-media campaigns to data-driven, algorithmic strategies. AI-powered personalization on digital platforms now predicts and shapes betting behavior, influencing risk perception and decision-making, and increasing engagement and vulnerability (Green et al., 2006). These strategies often exploit cognitive biases such as the illusion of control, reward anticipation, and social comparison, raising ethical concerns around autonomy, manipulation, and informed consent (Goiana-da-Silva et al., 2025). Responsible marketing frameworks emphasise balancing persuasive influence with consumer protection, promoting transparency, fairness, and safeguards for vulnerable populations. The intersection of technological sophistication and human susceptibility highlights the need for multidimensional approaches that integrate psychological, behavioural, and technological perspectives to understand and manage risk effectively. In this context, advertising self-regulation plays a key role in encouraging compliance, fostering responsible marketing, protecting consumers, and maintaining industry credibility (Gumede et al., 2021).

Regulatory responses, however, differ widely across jurisdictions. Some countries impose strict restrictions and mandatory disclosures, while others rely on self-regulation or voluntary codes, which can limit the effectiveness of enforcement. The global reach of digital platforms adds another layer of complexity, as cross-border content distribution challenges traditional oversight mechanisms (Jones & Dolsten, 2024). Comparative examples, such as Malaysia's Online Safety Act (2024), show efforts to hold platforms accountable and protect users, yet alignment with international standards remains inconsistent (Gumede et al., 2021; Khalil et al., 2025). These patterns reveal persistent regulatory gaps and illustrate the challenges of keeping pace with the rapidly evolving digital gambling environment.

Ethical considerations are increasingly foregrounded in recent literature. Integrating insights from Responsible AI and Digital Ethics by Design, researchers argue that effective governance of digital gambling marketing requires transparent algorithmic processes, restrictions on data exploitation, and explicit protections for vulnerable populations (Kuttalam & Liang, 2025). AI-

driven business analytics, while enhancing marketing efficiency, may perpetuate algorithmic bias and ethical risks, reinforcing the need for robust oversight to ensure fairness, transparency, and compliance (Minvielle et al., 2014). Synthesising technological, psychological, and regulatory perspectives, the literature converges on a central argument: while digital advertising offers unprecedented engagement and profitability, its long-term sustainability and social legitimacy depend on embedding ethical accountability within both technological design and regulatory frameworks, thereby safeguarding consumers and society at large (Ahmed et al., 2025; Ogundaini & Achieng, 2024; Oleribe et al., 2019).

A. Key Concepts

This study examines four interrelated concepts central to understanding digital gambling marketing and its impact on behaviour. Digital marketing strategies, including personalised advertisements, influencer promotions, and interactive platforms, actively shape user engagement and gambling intentions (Bhati et al., 2023). Complementing this, technological affordances such as algorithmic targeting, constant platform access, and personalised interactions structure the environment in ways that either facilitate or constrain user behaviour (Bokhour et al., 2018). Individual susceptibility is further influenced by cognitive biases and heuristics, including the gambler's fallacy and illusion of control, which systematically affect decision-making and risk-taking (Ahmed et al., 2025). Regulatory and ethical frameworks provide governance, consumer protection, and ethical oversight that moderate the reach and impact of marketing practices, ensuring the acceptability and safety of gambling environments (Porter & Kaplan, 2016).

B. Theoretical Framework

This study adopts a socio-technical and behavioural perspective to conceptualise how digital gambling marketing influences consumer behaviour. Table 1 highlights the intersection of these perspectives: the socio-technical lens focuses on technological and organizational factors that shape user engagement (Teisberg & Wallace, 2019; Teisberg et al., 2019), while the behavioral lens addresses individual cognitive processes, including biases and heuristics (Teymourifar, 2025). Integrating these perspectives illustrates how environmental affordances and psychological mechanisms jointly influence gambling behaviours, guiding conceptual analysis and policy interventions (Counte et al., 2019; Dowd & Laugesen, 2020). This dual lens acknowledges that the adoption and diffusion of digital innovations, including in gambling and health, are shaped by interdependent socio-technical, cultural, organisational, political, and economic factors, with psychological mechanisms mediating behavioural vigilance, self-regulation, and susceptibility to marketing stimuli (Edgman-Levitan & Schoenbaum, 2021; Teisberg & Wallace, 2019; Teisberg et al., 2019; Teymourifar, 2025).

Table 1. Intersection of Socio-Technical and Behavioural Perspectives in Digital Gambling Marketing

Perspective	Focus	Key Insight
Socio-Technical	Technology, platforms, organisational and regulatory context	Shapes the environment and opportunities for user interaction
Behavioural	Cognition, decision-making, biases	Explains how individuals perceive and respond to digital marketing
Integrated	Interaction of system and behaviour	Provides a holistic view of how platform design and user psychology jointly influence gambling behaviour

III. RESEARCH METHOD

Given the rapidly evolving nature of digital gambling marketing, a narrative literature review was selected as the primary methodological approach. This method allows for a broad, interpretive synthesis of heterogeneous evidence, encompassing quantitative, qualitative, and theoretical studies (Tufael & Rahman Sunny, 2022). Table 2 presents the distribution of reviewed studies across 5-year intervals, showing that most of the literature informing this review was published between 2020 and 2025, reflecting the rapidly evolving nature of digital gambling marketing research. This distribution not only summarises existing knowledge but also supports a critical examination of patterns, inconsistencies, and gaps across diverse sources, fostering a nuanced understanding of this complex phenomenon.

To ensure comprehensive coverage, a systematic search was conducted to identify peer-reviewed journal articles, government publications, and authoritative grey literature published between 2015 and 2025. Key databases included PubMed, Scopus, Web of Science, and ResearchGate, chosen for their extensive coverage of health, social science, and technology-related research. The search focused on literature addressing digital marketing strategies, consumer behaviour outcomes, AI-driven personalisation, social media influence, cognitive biases, ethical considerations, and regulatory frameworks (Dowd & Laugesen, 2020; Edgman-Levitan & Schoenbaum, 2021; Oleribe et al., 2019). Studies were included if they provided empirical or theoretical insights into these topics; publications were excluded if they were not relevant to digital gambling, focused solely on non-digital marketing, or fell outside the specified time frame. A thematic synthesis approach was applied, organizing findings into key dimensions relevant to the study, including technological affordances, behavioral susceptibilities, and regulatory influences.

Table 2. Distribution of Reviewed Studies by Publication Year (5-Year Intervals)

	Year Range	Count of sources
1	2010–2014	2
2	2015–2019	2
3	2020–2024	15
4	2025	15

Complementing the literature review, a case study of South Africa was conducted to contextualize the findings in a real-world setting, focusing on shifts in gambling trends and the sector's evolving dynamics. The case study method enables in-depth exploration of complex, context-dependent phenomena, capturing dynamic interactions, institutional structures, and societal factors that may not be fully represented in the literature (Vining & Globberman, 1999; Webb, 2024). This approach allowed the researcher to interpret broader patterns identified in the review and understand their implications for consumer behaviour, marketing strategies, and regulatory challenges.

The conceptual framework developed in this study, the Digital Gambling Interaction Framework (DGIF), was derived through an inductive synthesis of the literature and empirical insights from the South African case study. Themes emerging from the review and case analysis were integrated to model interactions among technological, behavioral, and regulatory factors, providing a structured lens for analyzing risk pathways, consumer engagement, and policy implications. This combination of narrative review and case study offers a robust methodological foundation, balancing the breadth of evidence with the depth of contextual understanding and supporting a critical examination of the complex interplay between digital gambling marketing strategies and consumer outcomes.

IV. RESULT

A. Determinants and Implications of Digital Gambling Marketing

1. Digital Marketing and Consumer Engagement

Digital marketing strategies, including social media campaigns, targeted ads, and interactive platforms, have redefined consumer engagement in gambling, shifting from passive exposure to continuous, personalised interaction. While these strategies increase brand visibility and participation, critical examination reveals a tension between profitability and consumer autonomy. The literature highlights how sustained exposure manipulates attention and normalises gambling behaviours, particularly among vulnerable populations, suggesting that enhanced engagement may simultaneously act as a risk factor for problem gambling (Ahmed et al., 2025) (Zanotto et al., 2021). This duality underscores the ethical complexity of leveraging marketing sophistication without reinforcing harm, thereby providing a foundation for modeling engagement-risk interactions within regulatory frameworks.

2. AI and Algorithmic Personalisation

AI-driven personalisation represents a technological leap in digital gambling marketing, enabling operators to predict and influence user behaviour with greater precision. Critical analysis shows

that while algorithmic targeting improves efficiency and user retention, it also raises ethical and regulatory dilemmas: biases embedded in AI systems can exploit cognitive vulnerabilities, obscure transparency, and amplify the exposure of at-risk users. The literature indicates that unchecked personalisation can exacerbate gambling harm, suggesting the need for modelling approaches that account for both marketing effectiveness and potential consumer exploitation (Green et al., 2006)

3. Influence of Social Media and Influencers

Social media influencers act as vectors for subtle, emotionally resonant gambling promotion, often bypassing traditional advertising scrutiny. This phenomenon illustrates how social endorsement and peer mimicry can reinforce gambling normalisation, particularly among younger demographics. Despite regulatory attempts, exposure persists, highlighting a structural gap between innovation in marketing channels and protective oversight. This suggests a dynamic input into a model in which influencer reach, content framing, and audience susceptibility jointly determine behavioural outcomes (Edgman-Levitan & Schoenbaum, 2021; Oleribe et al., 2019).

4. Behavioural and Cognitive Impacts

Gambling marketing exploits identifiable cognitive biases such as reward anticipation, illusion of control, and social comparison, which amplify engagement and reinforce habitual behaviour. Critical reflection emphasises that these biases are not merely incidental; they are systematically leveraged in digital campaigns, raising ethical concerns regarding informed consent and autonomy. Integrating these mechanisms into a conceptual model enables examination of how exposure intensity, bias activation, and user susceptibility interact to influence risk behaviors, providing a more nuanced understanding of the behavioral pathways leading to problem gambling (Chandawarkar et al., 2024; Goiana-da-Silva et al., 2025).

5. Regulatory Challenges

The regulation of digital gambling advertising is fragmented, with disparities across jurisdictions and inadequate enforcement mechanisms for cross-border content. This reveals a tension between technological innovation and policy adaptation: regulators often lag behind sophisticated marketing techniques that transcend national boundaries. Examining regulatory gaps highlights how policy insufficiencies may amplify consumer risk, suggesting that models should integrate governance factors as moderating variables influencing the relationship between marketing strategies and gambling behaviors (Jones & Dolsten, 2024; Khalil et al., 2025).

6. Social and Public Health Implications

Digital gambling marketing contributes to broader societal harms, including financial distress, problem gambling, and the normalisation of gambling in youth cultures. Assessing these impacts reveals a mismatch between the industry's economic gains and the social costs borne by communities, underscoring the need to systematically quantify indirect harms. Integrating these variables into a model allows for a holistic view that captures individual behavioural outcomes and population-level public health consequences.

7. Ethical and Responsible Marketing Frameworks

Emerging ethical frameworks advocate for “responsible digital marketing,” emphasising transparency, consumer protection, and the restriction of manipulative practices. Critical analysis underscores the inherent tension between commercial imperatives and societal values: effective marketing relies on persuasion, yet ethical responsibility requires limits on the exploitation of vulnerable groups. In modeling terms, ethical constraints can serve as boundary conditions or regulatory levers that modulate the impact of marketing strategies on consumer engagement and risk behaviors, highlighting the interplay between corporate strategy and societal accountability (Etges et al., 2023; Goiana-da-Silva et al., 2025).

B. Trend in Share of Gross Gambling Revenue - South Africa

The South African gambling landscape has undergone a notable structural shift over the past decade, with betting now accounting for 69.9% of Gross Gambling Revenue (GGR), down from 22.2% for casinos, as depicted in Figure 1 below, effectively inverting the market composition of ten years ago. This transformation reflects more than a change in consumer preferences; it signals the broader impact of digitalization, as mobile platforms and online betting have significantly increased accessibility, convenience, and engagement for punters, contributing to betting's 44.7% growth in FY2024/25, despite a slight moderation from previous years. Conversely, casinos experienced a 4.1% decline in GGR, alongside reductions in the number of operational slots and tables, indicating both a decrease in physical demand and a potential shift toward online gambling alternatives. Limited pay-out machines (LPMs) and bingo have remained marginal, maintaining small, relatively stable shares, though both sectors declined slightly in FY2024/25. Overall, the South African experience illustrates a clear shift from traditional land-based gambling toward digital-first modalities, highlighting the sector's responsiveness to technological transformation and evolving consumer behaviour.

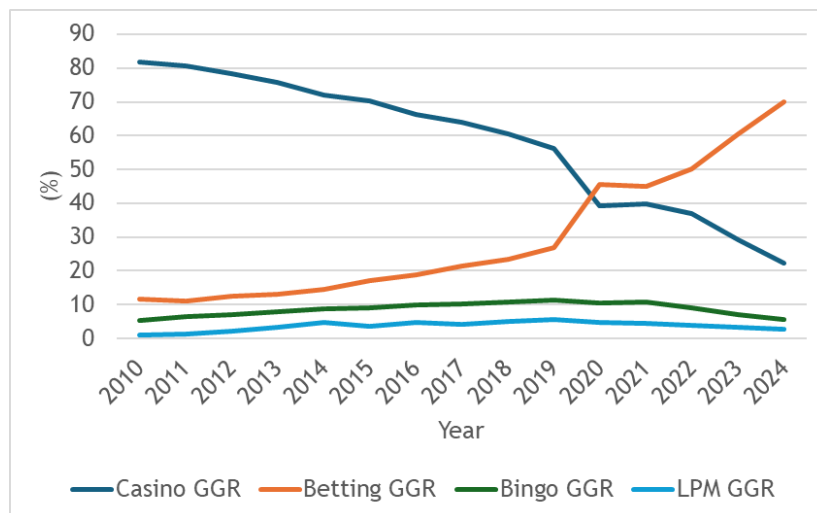


Figure 1. Trend in share of Gross Gambling Revenue - South Africa (FY2010/11 – FY2024/25)

Source: Adapted from National Gambling Board.

C. Integrated Framework - The Digital Gambling Influence Framework

The integrated framework consolidates the seven dimensions, as shown in Figure 2 below. It covers digital marketing strategies, AI-driven personalisation, social media influence, cognitive biases, consumer vulnerability, ethical considerations, and regulatory governance, and integrates them into a unified model that elucidates how digital gambling marketing shapes individual behaviour and broader societal outcomes. Digital marketing strategies, encompassing online advertisements, influencer endorsements, and gamified interactions, act as initial stimuli that capture attention and drive user engagement (Ahmed et al., 2025; Oleribe et al., 2019). AI-driven personalization further amplifies this engagement by tailoring content to specific behavioral profiles, thereby interacting with cognitive biases such as the illusion of control and reward anticipation, thereby intensifying the likelihood of risky gambling behaviors (Green et al., 2006; Goiana-da-Silva et al., 2025). Social media functions as a multiplier, broadening reach and normalising gambling practices, particularly among younger and more susceptible populations, while consumer vulnerability mediates how exposure translates into gambling-related harm (Counte et al., 2019; Edgman-Levitan & Schoenbaum, 2021). Simultaneously, ethical considerations and regulatory governance establish boundaries that balance innovation with consumer protection, guiding responsible marketing and mitigating potential social costs (Jones & Dolsten, 2024).

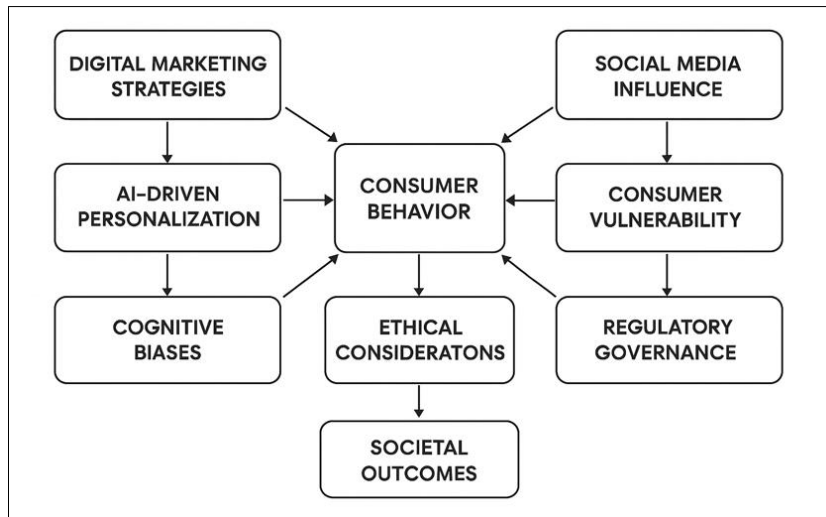


Figure 2. The Digital Gambling Influence Framework

V. DISCUSSION

Over the past decade, the South African gambling landscape has undergone significant structural change. Betting has emerged as the dominant segment, while traditional casinos have declined, effectively reversing the market composition observed ten years ago. This evolution reflects not only shifting consumer preferences but also the transformative impact of digitalisation: mobile platforms and online betting have dramatically increased accessibility, convenience, and engagement. Casinos have seen reduced operational activity, suggesting a clear substitution toward online alternatives, whereas LPMs and bingo continue to occupy smaller, stable roles within the sector.

Within this dynamic context, this study aimed to examine how digital gambling marketing influences consumer engagement and behaviour, with particular focus on technological innovation, cognitive vulnerabilities, ethical considerations, and regulatory oversight. The study also sought to contribute a conceptual tool, the DGIF, which maps the mechanisms linking marketing strategies, consumer behaviour, and points for responsible intervention.

Findings indicate that digital marketing has reshaped engagement patterns, moving from broad, mass-media exposure to personalised, interactive, and algorithmically targeted approaches. These strategies intensify participation and risk, although their effects are mediated by cognitive, social, and environmental factors, highlighting the need for a multidimensional understanding of consumer behaviour (Ahmed et al., 2025; Goiana-da-Silva et al., 2025).

AI-driven personalisation emerged as particularly powerful, falling under the DGIF's "technological affordances" dimension. Algorithms can predict and influence betting behaviour with high precision, enhancing marketing efficiency while raising ethical concerns. Vulnerable

individuals may be disproportionately affected, illustrating a causal pathway whereby personalized marketing activates cognitive biases, such as reward anticipation, the illusion of control, and social comparison, ultimately shaping behavior and increasing risk (Green et al., 2006).

Influencer marketing, aligned with the DGIF's "social and contextual mediators" dimension, further complicates engagement patterns. Gambling promotion embedded within culturally resonant, peer-endorsed content often bypasses formal regulatory oversight. Behavioral outcomes are shaped less by exposure frequency than by social validation, emotional resonance, and perceived credibility (Edgman-Levitan & Schoenbaum, 2021; Oleribe et al., 2019).

The study also highlights the ongoing exploitation of cognitive vulnerabilities in digital gambling engagement. The DGIF integrates marketing stimuli, individual susceptibilities, and contextual mediators, offering a structured lens for assessing risk pathways and anticipating behavioural outcomes (Ahmed et al., 2025; Avila, 2021; Goiana-da-Silva et al., 2025). Susceptibility depends not only on exposure but also on prior experience, personal vulnerabilities, and environmental cues, underscoring the need for interventions that address multiple layers of influence.

Regulatory analysis reveals persistent fragmentation. Rapid technological evolution and cross-border content distribution continue to outpace conventional governance mechanisms. Responsible marketing frameworks exist in principle, yet enforcement lags behind the sophistication and reach of digital campaigns. Consequently, financial harm, normalisation of gambling, and problem gambling persist despite partial or voluntary interventions. The DGIF demonstrates that ethical oversight and regulatory interventions such as algorithmic transparency, responsible data use, age-appropriate targeting, and mandatory disclosures can mitigate harm without stifling innovation. Interventions must move beyond individual behaviour to address systemic societal risks, aligning with broader public health and social accountability objectives (Ahmed et al., 2025).

Overall, digital gambling marketing is a complex socio-technical phenomenon shaped by the interplay of technological affordances, behavioral susceptibilities, and regulatory structures. Increased engagement and profitability cannot be separated from ethical and social responsibility considerations. DGIF offers a conceptual framework for researchers, policymakers, and industry stakeholders to understand these interactions, anticipate unintended consequences, and design interventions that balance innovation, commercial objectives, and public health imperatives. Future research should empirically validate DGIF, examine causal pathways, assess the moderating role of regulatory mechanisms, and evaluate the long-term societal impacts of digital gambling marketing across diverse populations.

While this study provides valuable insights into digital gambling marketing in South Africa, several limitations should be acknowledged. The reliance on a narrative literature review, although effective for synthesising diverse evidence, may reflect selection bias and limit the reproducibility of findings. The case study approach offers rich, contextual understanding, yet the South African context may not fully represent experiences in other countries with different regulatory environments or gambling cultures. Additionally, secondary data sources, including government reports, may contain inconsistencies or lag behind rapidly evolving digital marketing practices. Finally, the DGIF's conceptual framework remains empirically untested; therefore, conclusions about causality should be interpreted with caution.

VI. CONCLUSION AND RECOMMENDATION

This study highlights the profound ways in which digital gambling marketing shapes consumer engagement and behaviour in South Africa. Digital platforms, AI-driven personalization, and social media integration have not only transformed gambling practices but also amplified participation and consumer vulnerability. Importantly, behavioral outcomes are influenced not only by exposure to marketing but also by cognitive biases, social validation, and broader contextual factors, underscoring the need for a nuanced, multidimensional perspective on gambling engagement.

A key theoretical contribution of this research is the DGIF, which advances understanding of socio-technical behavioural models in the digital economy. The DGIF provides a comprehensive lens through which technological, behavioural, and regulatory factors can be examined in relation to gambling practices. By integrating insights from both literature and the South African case study, the framework supports anticipation of unintended consequences, guides the development of responsible marketing strategies, and informs evidence-based interventions that balance innovation, profitability, and public health imperatives.

The findings also highlight enduring gaps in regulatory oversight, as rapidly evolving technologies and cross-border content distribution continue to outpace conventional governance structures. Ethical considerations and proactive regulatory engagement are therefore essential to mitigate harm while preserving innovation, transparency, and societal accountability.

Looking ahead, future research should prioritise empirical validation of the DGIF, employing methods such as structural equation modelling, sentiment analysis, or network analysis to operationalise its variables. Investigating causal pathways, regulatory effectiveness, and the long-term societal impacts of digital gambling marketing across diverse populations will further strengthen this work's theoretical and practical contributions.

Several policy, industry, and research recommendations emerge based on the findings. Regulators should develop adaptive, evidence-based frameworks for algorithmic targeting, influencer promotion, and cross-border content distribution, emphasizing transparency, age-appropriate safeguards, and consumer protection. The gambling industry should adopt ethical marketing practices, including responsible personalization, clear disclosures, and harm-reduction interventions integrated into digital campaigns. Researchers are encouraged to conduct longitudinal and experimental studies to empirically validate the DGIF, examine causal pathways, and assess long-term societal impacts while exploring interventions that mitigate vulnerability without stifling innovation. Collaborative engagement among stakeholders, including public health authorities, educators, and technology developers, is essential to align commercial, societal, and ethical objectives.

AUTHOR CONTRIBUTION

The author conceptualized the study and developed the DGIF. The author also conducted a narrative literature review, analyzed relevant literature and case studies, and developed a framework that shows how digital marketing, cognitive biases, ethics, and regulation interact to shape consumer behavior in South Africa.

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While preparing this manuscript, the author used Grammarly and QuillBot for language editing, polishing, and plagiarism detection. All outputs generated by these tools were critically reviewed and edited by the author, who takes full responsibility for the final content presented in this publication.

DATA AVAILABILITY

The data used in this study were derived from secondary sources compiled through a comprehensive literature review. All data are publicly available and have been appropriately cited in the manuscript.

CONFLICT OF INTEREST

The author declares no conflicts of interest related to this study.

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