From pool to *baba ijebu* and sports betting: Analysis of typology and spatial distribution of gambling platforms

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ABSTRACT

Globally, the gambling industry has undergone significant evolution and expansion. This study investigates the typology of locational characteristics of betting platforms. The study utilised a survey research design, and data were collected through a combination of reconnaissance surveys and detailed preliminary field investigations. A total of 581 gambling outlets were identified and geo-referenced. Wilcoxon Signed-Rank Test showed a statistically significant difference between compliant and non-compliant gambling outlets ($Z=-2.60$, $p<0.01$), and the spatial distribution of gambling locations was found to be clustered ($R=0.408$, z-score=-27.241). The study notes that gambling-related harm is spatially produced and maintained and that informality acts as a risk multiplier. It concludes that planning regulation is a vital and critical, yet underutilised, harmful gambling prevention tool. The study recommends strict enforcement of planning regulations, including setback and buffer zones, and advocates for the registration of existing outlets to improve government oversight and social impact monitoring.

Keywords: Gambling Typology and Distribution, Harmful Gambling, Physical Planning Regulations, Spatial Pattern, Urban Informality, Nigeria

I. INTRODUCTION

Gambling is widely regarded as a socio-economic activity that involves placing bets on outcomes significantly influenced by chance, and in some instances, by the skill of the gamblers (Kim et al., 2015; Killick & Griffiths, 2021; Stetzka & Winter, 2021). Over the past two decades, the gambling industry has undergone significant evolution and expansion, driven by the global liberalisation of gambling and the substantial growth of Internet-based gambling (Ahaibwe et al., 2016; Sichali et al., 2023). According to Goldsmith (2024), 56 per cent of adults in Great Britain engaged in some form of gambling, not including the National Lottery. When the National Lottery is factored in, that figure rises to 73 per cent. In developing countries such as Nigeria, Nlebem (2023) reveals that approximately 60 million Nigerians between the ages of 18 and 40 spend around $11.3 million daily on bets, totalling about $4.2 billion annually, particularly on lottery and sports betting. The burgeoning nature of the gambling industry has sparked significant interest among policymakers in the economics of gambling, with the sector generating several billion dollars globally (Sichali et al., 2023; Wardle et al., 2024)

The contemporary generation of gamblers in Nigeria is increasingly enthusiastic about gambling, driven by the exciting offerings provided by new gambling systems and operators. According to PricewaterhouseCoopers (2017), the Nigerian gaming landscape has undergone significant changes, and the industry's expansion has been positively impacted by the country's youthful population, rising internet penetration, and greater access to internet-enabled devices. Nigeria's internet usage reached a record 1.24 million terabytes in November 2025, with broadband penetration in Nigeria crossing the halfway mark, reaching 50.6 per cent, up from less than 30.0 per cent in 2014 according to Nigerian Communications Commission, in 2025. The increase in internet penetration was attributed to awareness campaigns, aggressive expansion, and inclusive marketing strategies employed by operators. Additionally, various factors influence the demand for and participation in gambling, including gender, age, marital status, educational attainment, occupational type, monthly income, and community aspects such as location, proximity to gambling outlets, accessibility, and advancements in online payment platforms (Ahaibwe et al., 2016; Kamwela et al., 2024).

In the aftermath of the new millennium, lotteries, pool houses, and slot machines emerged as Nigeria's most popular legal gambling outlets. Despite the existence of various laws, regulations, authorities, and policies governing gambling activities, the sector remained largely unregulated (Owonikoko, 2020; Sichali et al., 2023). However, significant changes to the gambling landscape in Nigeria began in the late 1990s with the introduction of new policies and legislation, including the Taxes and Levies Act of 1998, the Casino and Gaming Law of Lagos State in 2004, and

the establishment of the National Lottery Regulatory Commission in 2007. These developments not only aimed to enhance the governance and regulation of gambling in Nigeria but also incentivised the privatisation of sports betting, particularly football, along with various forms of lotteries, commonly known as Baba Ijebu, As a result, football betting is becoming an increasingly significant industry, with sports betting shops and online platforms playing an essential role in the social and economic landscape of Nigeria (Akanle & Fageyinbo, 2019; Owonikoko, 2020).

Research on gambling in Nigeria has primarily focused on the prevalence and determinants of gambling among various subpopulations, as well as its economic benefits (Nwigwe et al., 2013; Adenugba et al., 2018; Aguocha et al., 2019a & b; Temitope et al., 2018; Akanle & Fageyinbo, 2019; Aguocha et al., 2019; Owonikoko, 2020). However, the typology and locational characteristics of betting platforms have not been thoroughly examined. This oversight is surprising given the ongoing growth in the popularity of the gambling industry. As such, a comprehensive analysis of the evolving dynamics of gambling typology and spatial distribution, including locational attributes, is essential. This study aims to investigate the locational characteristics and typology of betting platforms, as well as the implications for physical planning in Ibadan, Nigeria.

1.1 Research Objectives

The objectives are to

i. Investigate the spatial distribution, locational characteristics and typology of gambling platforms,
ii. Examine the compliance of the gambling platforms with physical planning regulations

II. LITERATURE REVIEW

2.1 The Conceptual Framework of Harmful Gambling

Gambling has been a form of recreation, social interaction, and economic activity for centuries, present in nearly all societies regardless of their legal status. While many individuals gamble recreationally without issues, prolonged exposure can lead to gambling addiction, resulting in psychological distress, financial difficulties, family breakdown, and social exclusion (World Health Organisation [WHO], 2019). Harmful gambling arises from a combination of personal, social, economic, and structural factors. The Conceptual Framework of Harmful Gambling was developed to analyse these factors at individual, family, and community levels. Created in 2011 by the Ontario Problem Gambling Research Centre (OPGRC) and later adopted by GREO, the framework includes gambling-specific factors (Gambling Environment, Gambling Exposure, Gambling Types, and Gambling Resources) and general factors (Cultural, Social, Psychological, and Biological). This study will focus on the gambling-specific factors, which are interconnected with the general factors.

2.2 Empirical Review

The gambling environment is subject to government regulation and oversight, as well as consumer demand, which varies by jurisdiction (Hilbrecht et al., 2020; Lamoste & Prasetyawati, 2021). Regulatory oversight of gambling is closely linked to institutional or community-level influences that can affect the likelihood of harmful gambling behaviours (Hilbrecht et al., 2020; Wardle et al., 2024; WHO, 2024). The widespread availability of gambling, particularly without proper regulations, significantly heightens the risk of harm (Ghelfi et al., 2024; Tran et al., 2024; Benedetti et al., 2025). The rise of online gambling, mobile betting applications, and the availability of 24-hour access have dismantled traditional barriers related to time, location, and social visibility (WHO, 2024). As a result, individuals are now able to gamble privately, impulsively, and continuously, often without any immediate social accountability (Gainsbury, 2015; Kairouz et al., 2025).

The socio-political environment includes the complex dynamics of how social, political, and economic systems shape gambling practices across various states and nations (Gordon & Reith, 2019; Arslan, 2025). This encompasses a broad array of factors, including cultural attitudes towards gambling, the legal frameworks set by governments, and the economic impacts of gambling industries. Public policy plays a vital role in this context, involving the development and enforcement of regulations aimed at mitigating potential harms associated with gambling while promoting public well-being (Abbott et al., 2018; Hilbrecht et al., 2020; Wardle et al., 2024). Such policies may include measures to protect vulnerable populations, ensure fair practices, regulate advertising, and generate tax revenue for community benefits. Together, these elements contribute to a deeper understanding of the intricate relationship between gambling and its socio-political environment (Hilbrecht et al., 2020; Wardle et al., 2024).

Modern gambling products are designed to maximise engagement and spending (Hing et al., 2022; Whelan et al., 2025). Features like rapid betting cycles, near-miss outcomes, and immersive interfaces exploit cognitive biases (Schüll, 2012; Wagner et al., 2022; Packin et al., 2025). Gambling can be categorised into games of chance, which are purely luck-based, and games of skill, which involve strategy (Nielsen & Grabarczyk, 2019; Hong, 2024). For instance, lotteries have longer wait times for payouts compared to Electronic Gambling Machines (EGMs), which encourage

immediate betting (James et al., 2017; Hilbrecht et al., 2020; Gainsbury & Philander, 2022). Continuous gambling forms like EGMs are more associated with harm, but lotteries can also lead to negative outcomes, especially during tough economic times (Capacci et al., 2017; Russell et al., 2023; Schlosky et al., 2024). Structural features of EGMs, such as bonus rounds and "losses disguised as wins," further enhance engagement and potential harm (Taylor et al., 2017; Newall et al., 2024; 2025).

Most researchers have acknowledged the differential levels of harm among gambling forms; however, people who take part in several gambling types often gamble more heavily and are at a greater risk of experiencing harm (Ronzitti et al., 2016; Binde et al., 2017; Hilbrecht et al., 2020; Wardle et al., 2024). This may be because versatility in gambling is closely linked to the intensity of gambling, and exposure to a greater variety of gambling risk factors associated with the different gambling forms (Abbott et al., 2018; Stetzka & Winter, 2021; Kovarík & Fiedor, 2025). It is important to note that the association between a particular form of gambling and gambling harm is not absolute but relative to other forms and depends on the mix of games available on a particular gambling market.

The convergence of gambling and gaming highlights the blurred lines between the two, particularly in the growing online market (Gainsbury, 2019; Kim & King, 2020; Teichert et al., 2017; Sirola et al., 2021a; Siste et al., 2025). While gaming outcomes are primarily based on skill, gambling outcomes rely mostly on chance (Killick & Griffiths, 2021; Auer & Griffiths, 2023). Many individuals place bets influenced by the skills of famous participants in sports betting contexts (Killick & Griffiths, 2021; Dwyer et al., 2024). The industry often uses the terms gaming and gambling interchangeably to mitigate negative perceptions of gambling (Abbott et al., 2018; Kim & King, 2020). This convergence spans various areas, including media, platforms, and products (King et al., 2015). Additionally, aggressive marketing and personalised advertising normalise excessive gambling participation (Livingstone & Rintoul, 2020; Guillou-Landreat et al., 2021; Michael et al., 2025; Savolainen et al., 2025).

Human activity, influenced by social interactions, affects perceptions and experiences of gambling (Russell et al., 2018; Sirola et al., 2021b; Lin et al., 2025). These interactions can support or obstruct efforts to change harmful behaviours. As noted by Ghelfi et al. (2024), the lack of regulatory enforcement highlights a significant structural resource failure in harm prevention. For example, the high rates of non-compliance indicate a resource deficit, leading to the government's inability or unwillingness to enforce its own planning laws (Tran et al., 2024; Benedetti et al., 2025). This represents a critical shortcoming in the public health response to gambling. The availability of these resources is vital, as inadequate regulation can worsen harmful gambling (Ukhova et al., 2024; Fisher et al., 2025). Conflicts between policies limiting gambling exposure and marketing practices promoting it, along with weak enforcement of age restrictions and insufficient harm minimisation, leave vulnerable individuals at risk (Syvertsen et al., 2022; Savolainen et al., 2025; Gruben et al., 2024; Wardle et al., 2024).

Exposure to gambling refers to the degree of interaction individuals have with gambling activities, particularly during childhood or adolescence, which increases the risk of harmful gambling in adulthood (Hing et al., 2014b; Dowling et al., 2021; Noble et al., 2022; Gruben et al., 2024). Factors such as access to alcohol and credit, along with the availability of gambling opportunities, can also elevate harmful behaviours (Riley et al., 2023). Gaming-like gambling, which blends skill elements and social media themes into Electronic Gambling Machines (EGMs), attracts younger players and may lead to problematic gambling behaviours, as seen with mini-games and loot boxes that lack immediate financial consequences (Macey et al., 2024; Newall et al., 2024; Zendle, 2020; Belmar & Subramanian, 2025). Overall, gambling harm results from a combination of personal and structural factors, necessitating a comprehensive public health response rather than being solely attributed to individual choices.

III. METHODOLOGY

The study employed a comprehensive survey research design to explore the typological characteristics and locational attributes of betting platforms in specific areas. Ibadan, the focus of this study, comprises five urban local government areas (LGAs), namely Ibadan North, Ibadan North East, Ibadan North West, Ibadan South East, and Ibadan South West. From these LGAs, two Ibadan North and Ibadan North East LGAs were randomly selected using the "Rand Between" function in Excel. This method ensured a representative sample, facilitating a thorough investigation of the gambling landscape in the chosen densely populated urban settings. The target population included all gambling outlets located within the selected LGAs. Data collection for the study was carried out through a combination of reconnaissance surveys and detailed preliminary field investigations. These methods enabled researchers to gather firsthand observations and insights regarding the locations of gambling platforms. By utilising Global Positioning System (GPS) technology, precise geographical coordinates of each betting outlet were obtained, facilitating accurate geo-referencing and classification based on established typologies.

According to the findings presented in Table 1, the total number of gambling outlets surveyed was five hundred and eighty-one (581). This figure is further subdivided into two categories: 269 gambling platforms located in Ibadan North LGA and 312 situated in Ibadan North East LGA. This disaggregation not only highlights the distribution of these

outlets but also serves as a foundation for further analysis regarding their impact on the local community and regulatory considerations. Ultimately, this study seeks to provide a more nuanced understanding of the gambling environment in Ibadan, thereby contributing to discussions on urban planning and public health in relation to gambling activities.

Table 1

Number of Gambling Outlets in the Study Area

Local Government Area	Gambling outlets
Ibadan North	269
Ibadan North East	312
Total	**581**

To conduct a thorough analysis of the spatial distribution of gambling platforms, the study utilised advanced geospatial techniques, overlaying the coordinates of these platforms onto high-resolution Google Earth imagery. This method, illustrated in Figure 1, created a vivid visual representation that provided a detailed geospatial context, facilitating a comprehensive understanding of the placement and density of various betting outlets across the study area. In addition to visualisation, we employed a rigorous analytical approach. The geo-referenced data points were subjected to Nearest Neighbour Analysis (NNA), a statistical method that assesses the degree of clustering or dispersion of points in a given area. This analysis enabled us to evaluate the spatial patterns of the gambling locations, determining whether they were randomly distributed or exhibited significant clustering.

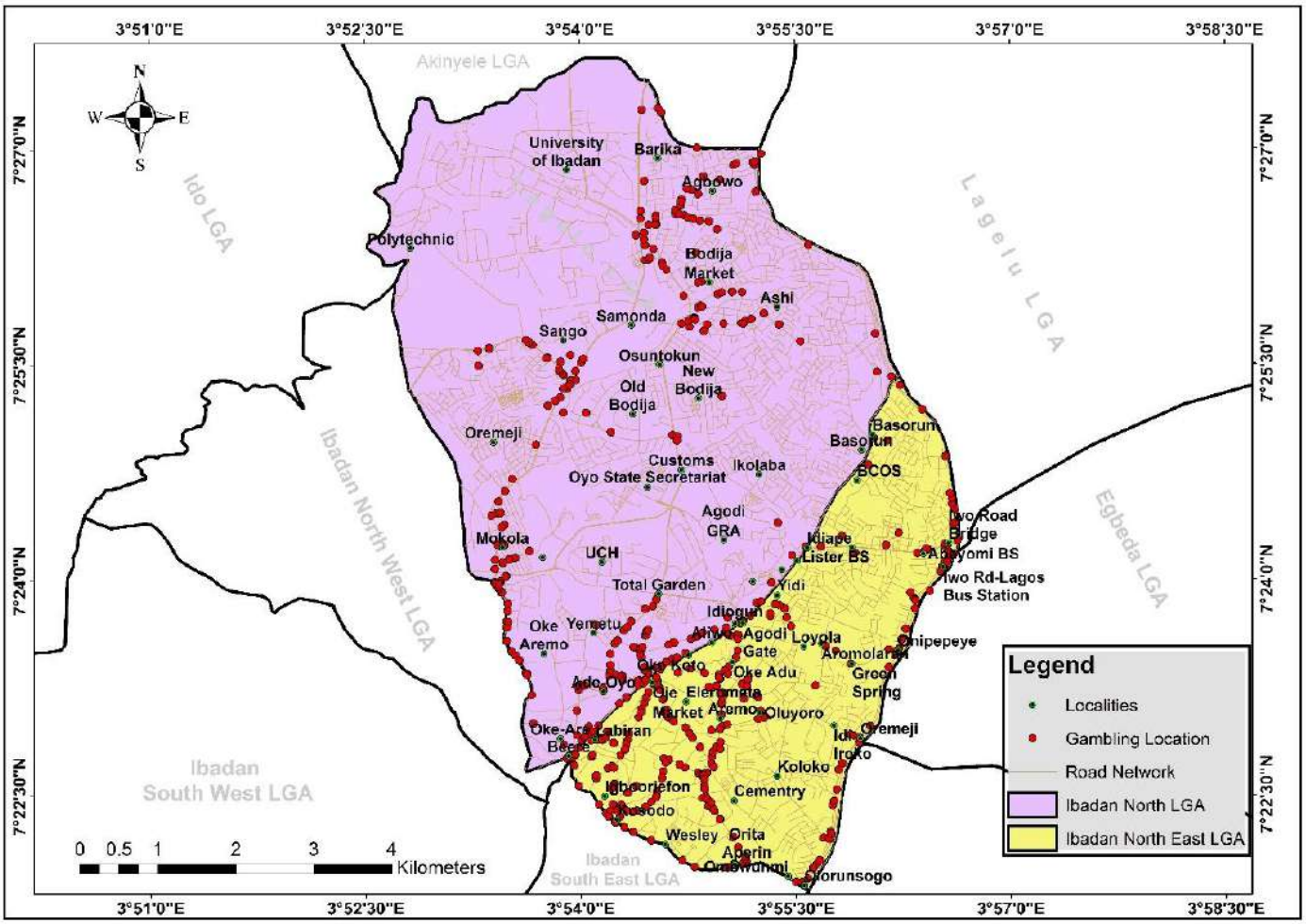

Figure 1

Distribution of Gambling Platforms

To examine compliance with established physical planning standards for commercial activities, the Vagale's Manual of Space Standards for Urban Development, as shown in Table 2, was used. Given that the data were not randomly selected, the Wilcoxon Signed Rank Test was applied. This non-parametric statistical test, similar to the t-test, is particularly advantageous for comparing paired samples. This approach enables an evaluation of the compliance of gambling establishments with regulatory frameworks within the designated Local Government Areas (LGAs). By

integrating these statistical methodologies, the study drew insightful conclusions about the spatial distribution and regulatory compliance of gambling platforms, thereby contributing valuable knowledge to the broader discourse on urban planning and public policy related to gambling establishments.

Table 2

Physical Planning Standards for Commercial Activity

Commercial Development (Convenience Shops)	**Standards**
Site Area	216 – 1,824m^2
Percentage coverage	25 – 30 per cent
Set back to Buildings	0.4 – 0.5m
Setback to the local street	10.6 – 12m
Setback in a loop or cul-de-sac	10 – 11m
Water supply	27 to 45 per capita per day
Waste management	One refuse receptacle for every shop.
Car park	Available
Convenience	Availability of attached or public water closet within a 50m radius

Source: Adapted from Vagale (2000; pp 29-35)

IV. FINDINGS & DISCUSSION

4.1 Findings

4.1.1 Typology and Locational Attributes of the Gambling Outlets

The typologies of gambling outlets identified within the two local government areas revealed a rich tapestry of establishments catering to various preferences and demographics. A total of 581 gambling outlets were documented, comprising 14 pool houses, 145 sports betting venues, and a significant 422 lotto outlets, commonly referred to as Baba Ijebu. These establishments were constructed using an array of materials, predominantly featuring 382 plywood kiosks, which highlight the informal and accessible nature of the gambling industry in the area. Additionally, 31 outlets utilised portable structures such as parasol umbrellas or temporary sheds. This outcome, albeit negating the extant physical planning regulation, showcases a growing trend towards flexible setups that can easily adapt to shifting local demand and preferences.

Spatially, the distribution of these gambling outlets illustrates their integration within the fabric of the community. Notably, 168 of these outlets were located within mixed-use buildings. This pattern signifies an intentional blending of commercial activities with residential or multi-purpose environments, as detailed in Table 3. The extensive presence of these establishments indicates not only their acceptance but also their role as social hubs within the neighbourhoods they serve. Key locations for gambling activities included the Beere Area, known for its vibrant community life and bustling social interactions; the Mokola Area, characterised by a diverse array of commercial shops that attract both residents and visitors; and the highly trafficked Iwo Road and Lagos-Ibadan Express Road areas, which see a significant flow of people daily. The Agbowo region, with its proximity to the University of Ibadan, caters to a large student population, contributing a youthful and energetic clientele to the gambling scene.

Table 3

Summary of the Features of Gambling Outlets in the Study Area

Typology	**Count**	**Type of Structure**	**Count**
Pools	14	Kiosks	382
Lotto	422	Buildings	168
Sport Betting	145	Others	31
Total	**581**	**Total**	**581**

In addition, other notable areas such as Orogun, Bodija, and the Bodija Market serve as economic activity centres that facilitate the convergence of various services and goods, including gambling. Other regions like New Bodija, Ashi, and Basorun Area, Sango near the Polytechnic Ibadan, the Agodi-Gate Area, the Secretariat Area, Yemetu, and the Old Ife Road Area further enrich this landscape, each contributing uniquely to the local gambling ecosystem. This comprehensive and diverse distribution illustrates the widespread popularity, accessibility, and cultural acceptance of gambling activities throughout the city, highlighting not only the economic implications but also the social dynamics at play within these neighbourhoods. The prevalence of unregulated gambling outlets significantly increases the risk of harm (Ghelfi et al., 2024; Tran et al., 2024; Benedetti et al., 2025).

The distribution of gambling outlets within the study area is illustrated in Figure 2, revealing notable variations in concentration across different neighbourhoods. In the Beere area, the traditional inner core of the city with associated organic development, there are an impressive two hundred and twenty-four (224) gambling outlets, predominantly focused on lottery platforms, underscoring the area's popularity for lottery-based gambling. The Iwo Road area, a bustling commercial hub and a crucial transportation nexus, is home to seventy-nine (79) gambling outlets. These establishments are strategically positioned along major transportation routes, especially concentrated around the Academy sector near the Lagos-Ibadan Express Road, making them easily accessible to local patrons.

Both the Agbowo and Bodija areas host forty-nine (49) gambling outlets each. These regions feature a mix of informal spaces interwoven with mixed-use developments that include residential, commercial, and other functionalities, attracting a diverse demographic of customers. However, the limited number of gambling outlets in Agbowo and Bodija neighbourhoods may be due to the proximity of these localities to the University of Ibadan and the adoption of online betting by the mostly youthful population. Known for its vibrant commercial activities, the Mokola area accommodates 48 gambling outlets that cater to local patrons engaged in various businesses. The Oje-Gate axis functions as both a motor park and a commercial hub, housing 38 gambling outlets that appeal to a mix of commuters and local shoppers.

In the Sango area, there are 32 gambling outlets frequented by both residents and visitors. Yemetu, characterised by its high-density residential population, features 30 gambling outlets that cater to the leisure activities of residents. The Secretariat area, primarily designated for institutional land use, includes 20 gambling outlets, highlighting a unique intersection of recreational activities within an administrative zone. Finally, along Old Ife Road, there are 11 gambling outlets strategically situated around medium-density residential estates, serving the local community and enhancing the area's recreational offerings. Overall, this distribution illustrates the intricate interplay between commercial, residential, and recreational uses across the various neighbourhoods.

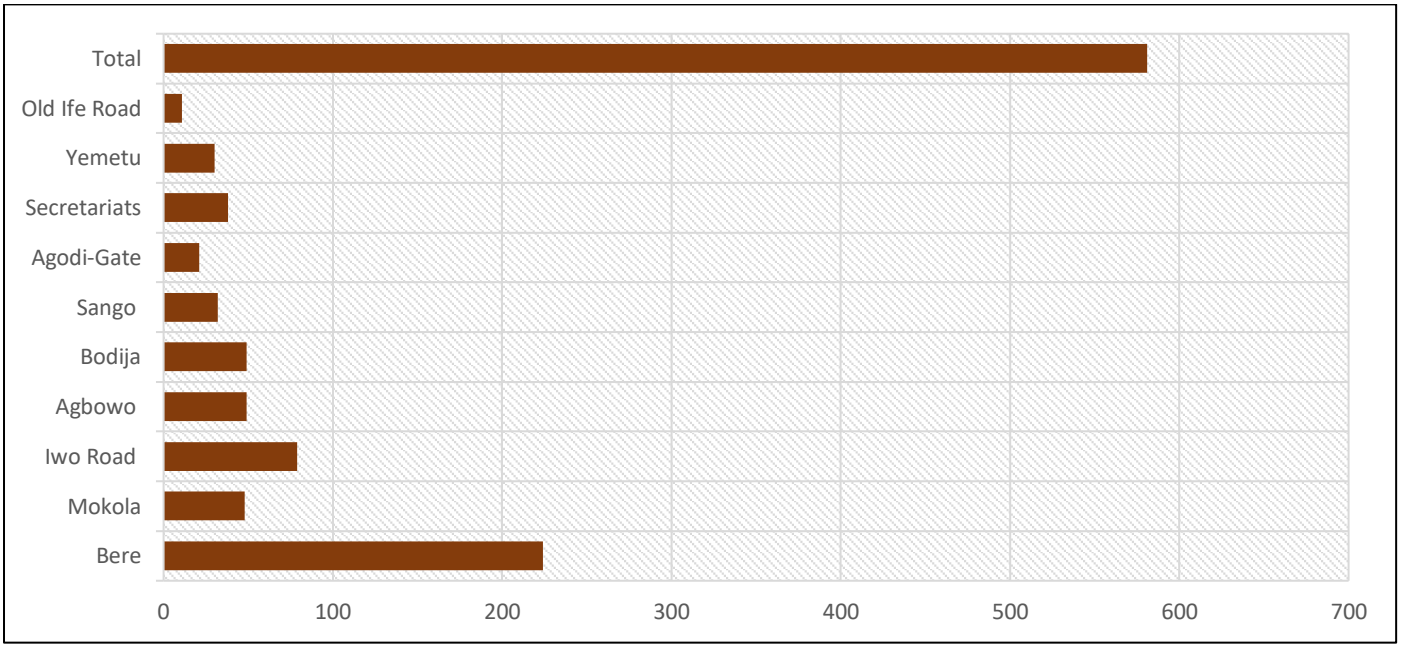

Figure 2
Locations of the Betting Platforms

Table 4 presents a detailed analysis of the compliance levels of various structures used for gambling activities in relation to established planning standards. The findings revealed that out of 422 identified lotto outlets, an alarming 269 were found to be non-compliant with crucial planning regulations. The violations included significant issues such as inadequate setbacks from roadways and adjacent buildings, insufficient space allocation, and encroachments into designated open public spaces, which are essential for community accessibility and effective urban planning.

In addition, an examination of 145 structures designated as sports betting outlets uncovered that 84 of these were non-compliant with the relevant planning standards, while only 61 met the required regulations. Notably, some of the compliant sports betting establishments were integrated within larger complexes, such as shopping malls and retail blocks, potentially contributing to a more organised urban environment. Overall, the data reveal a pervasive trend of non-compliance among all evaluated locations. The figures depict a striking imbalance, with a total of 353 structures failing to adhere to planning standards compared to just 228 that were compliant. This disparity underscores the urgent

need for stricter enforcement of planning regulations to ensure that gambling establishments are developed in alignment with community planning objectives, thereby enhancing the overall urban landscape (as illustrated in Table 4).

Table 4

Gambling Platforms' Compliance with Planning Standards

Type	Compliance	Not in Compliance	Total
Lotto	153	269	422
Sport	61	84	145
Pool	14	0	14
Total	**228**	**353**	**581**
Locations			
Beere	87	137	224
Mokola	17	31	48
Iwo Road (Lagos/Ibadan Express Road)	33	46	79
Agbowo (UI and Orogun)	26	23	49
Bodija (Market, New Bodija, Basorun)	19	30	49
Sango (Poly Area)	11	21	32
Agodi-Gate	9	12	21
Secretariats	16	22	38
Yemetu	9	21	30
Old Ife Road	1	10	11
Total	**228**	**353**	**581**

A Wilcoxon Signed-Rank Test revealed a statistically significant difference between compliant and non-compliant gambling outlets across various locations ($W=1.5$, $Z=-2.60$, $p< 0.01$) and a large effect size ($r=0.82$), as indicated in Table 5. This analysis confirmed a statistically significant and systematic disparity in the number of gambling outlets that adhere to planning standards compared to those that do not within the sampled locations. Notably, instances of non-compliance with planning standards were found to be, on average, about 28 times more frequent than those of compliance in Ibadan. In practical terms, the large effect size ($r=0.82$) suggests that non-compliance is not random or incidental; rather, it reflects a consistent structural pattern across urban neighbourhoods. This outcome illustrates that planning non-compliance is prevalent, particularly in high-density areas (such as Beere and Yemetu), along transport corridors (like Iwo Road and Old Ife Road), and in informal commercial hubs (such as Mokola and Sango).

Table 5

Wilcoxon Signed-Rank Test Results for Planning Compliance

Statistic	Value
Number of paired observations (n)	10
Test statistic (W)	1.5
Mean of ranks (μ)	27.5
Standard deviation (σ)	9.81
Z-score (with continuity correction)	−2.60
Significance level (p-value, two-tailed)	0.009
Effect size (r)	**0.82**

To analyse the distribution pattern of gambling outlets, we employed Nearest Neighbourhood Analysis, a statistical method that assesses the spatial arrangement of points in relation to each other. The results demonstrate that the locations of gambling venues are not randomly distributed; instead, they exhibit significant spatial clustering. This is evidenced by an R-value of 0.408721, which is significantly below 1, indicating a marked tendency for these outlets to be located in proximity to one another. Furthermore, the z-score of -27.241895 reinforces this finding, suggesting that the observed clustering is highly improbable to have occurred by chance (p-value<0.05). Figure 3 illustrates this clustered distribution, clearly showing how gambling platforms are concentrated in specific areas rather than being evenly distributed across the landscape. This clustering could have implications for accessibility, regulatory oversight, and the social impact on the communities where these outlets are found.

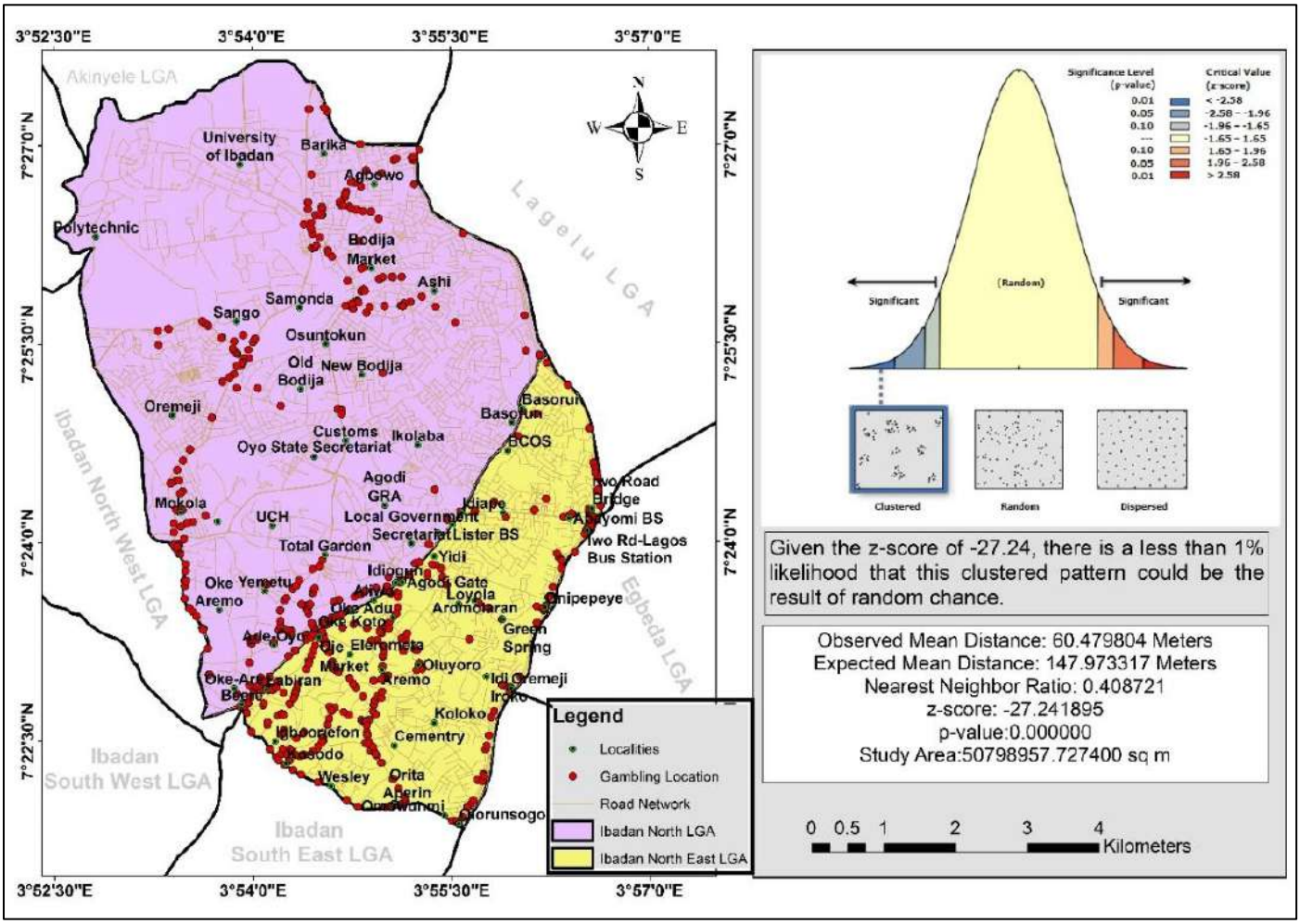

Figure 3
Nearest Neighbour Analysis of Gambling Locations in Ibadan

4.2 Discussion

The contemporary gambling landscape in Nigeria has shifted dramatically from traditional analogue methods to sophisticated digital betting platforms, reflecting broader global trends in the industry. Notably, football betting and online lottery games have emerged as dominant forms of gambling, effectively replacing the age-old practice of betting on pool games. The customer demographic of the gambling sector in Nigeria has expanded significantly, attracting a diverse array of participants, from avid football fans to informal traders who utilise local betting services along road setbacks.

By 2014, estimates indicated that there were over 1,000 gambling outlets in Uganda alone, with approximately 470 of these situated in Kampala city (Ahaibwe et al., 2016). In Ibadan, Nigeria, a comprehensive survey revealed that more than 581 gambling establishments were prevalent within two out of five urban local government areas. The surge in the number of gambling platforms can largely be attributed to several factors, including the privatisation of the industry, perceived economic benefits associated with gambling activities, and enhanced internet connectivity facilitated by the establishment of Internet Exchange Points (IXPs) (Internet Society, 2014). This digital transformation has enabled the introduction of various gambling modes, such as sports and online betting, which bring with them the added benefit of streamlined payment processes for placing bets and collecting winnings (Gainsbury et al., 2015).

The growth in the customer base for gambling activities is not uniform and is highly dependent on geographic location. Research findings indicate that most gambling platforms, particularly lotto and pool houses, are situated in lower-income neighbourhoods, while sports betting outlets tend to cluster in more structured environments with diverse income groups. This distinction can be linked to the economic activities and income sources prevalent within these areas. For instance, sports betting establishments are predominantly located in residential areas, whereas lotto platforms tend to span across residential, commercial, and bustling thoroughfares. This is largely due to the nature of lotto games, which are daily events often requiring wagers to be placed in the morning, with results revealed later in the day, sometimes multiple times daily. Consequently, areas with high daily economic activities, such as Beere, Mokola, Sango, Bodija Market, Agbowo, and Iwo Road, exhibit a notable concentration of gambling operations, aligning with the income-generating patterns of informal sector employment in these locales.

The informal sector, often characterised as an unregulated space for economic activity, plays a crucial role in Africa's economies, with estimates suggesting that approximately 70% of residents engage in informal work (Kasim et al., 2020). The defining features of the informal sector, such as minimal entry barriers, lack of structured organisation, low levels of capital investment, inadequate infrastructure, and the tendency to operate outside the bounds of formal regulations, make it a crucial source of livelihood for many. Given these characteristics, it is perhaps unsurprising that many gambling platforms fail to conform to standard urban planning requirements, resulting in a proliferation of outlets that reinforce informal practices (La Porta & Shleifer, 2014; Wahab & Agbola, 2017; Ulyssea, 2020). Many of these establishments have been observed to operate in haphazard locations along major and minor road networks, on walkways and drainage covers, and in privately owned setbacks, often without adherence to space and safety standards.

The laissez-faire approach to urban planning and management, combined with an increase in gambling establishments, poses significant challenges, including potential traffic congestion and conflicts between pedestrians and vehicles. Spatial analysis, including the Nearest Neighbourhood Analysis, indicates that the distribution of gambling outlets is notably clustered rather than randomly dispersed. This clustering is attributed to the proximity of gambling locations to areas of commercial activity, transport hubs, and densely populated residential neighbourhoods. The analysis produced a z-score of -27.24, indicating a less than 1% probability that such a concentrated pattern is due to random chance. This strongly suggests that gambling outlets tend to congregate in areas where informal economic activities thrive, largely fueled by daily income flows.

From the comprehensive examination of the data and observed patterns, it becomes evident that regions with prevalent informal activities, marked by high-density housing, commercial centres, and transport nodes, such as Beere, Mokola, Sango, Bodija Market, Agbowo, and Iwo Road, feature a significant concentration of gambling venues. In stark contrast, institutional areas, including educational establishments like the University of Ibadan, technical colleges, governmental offices, and affluent residential neighbourhoods like Basorun and Bodija, exhibit either a scarcity of sports betting options or a complete absence of gambling locations. Thus, it can be conclusively argued that the majority of betting outlets are concentrated in areas where informal economic activities and daily income opportunities are the norm.

The study is anchored in the Conceptual Framework of Harmful Gambling developed by the Ontario Problem Gambling Research Centre (OPGRC) and later advanced by GREO. This framework conceptualises gambling harm as an outcome of structural and environmental conditions, rather than solely individual pathology (Hilbrecht et al., 2020; Abbott, 2020). By foregrounding gambling-specific factors, namely, gambling environment, gambling exposure, gambling types (industry practices), and gambling resources, the framework provides a robust lens for examining how spatial arrangements and planning failures shape gambling-related risks. In the context of Ibadan, this framework is particularly appropriate because gambling activities are embedded within informal urban systems, weak regulatory enforcement, and dense socio-economic interactions. Thus, the conceptual framework does not function abstractly; rather, it directly informs what is measured, mapped, and interpreted in the empirical analysis.

In the conceptual framework, the gambling environment encompasses the regulatory, spatial, and socio-political factors affecting the accessibility of gambling opportunities (Gainsbury, 2015; Hilbrecht et al., 2020; Wardle et al., 2024). This is examined through the mapping of 581 gambling outlets in Ibadan North and Ibadan North-East LGAs, revealing that these outlets are highly accessible, clustered, and integrated into everyday spaces like markets and transport corridors. Nearest Neighbour Analysis ($R = 0.4087$; $z = -27.24$) shows significant clustering, suggesting that gambling platforms are strategically placed for visibility and ease of access. This spatial concentration supports the argument that proximity increases gambling exposure, especially in low-income areas, and reflects weak enforcement of planning regulations and informal urban development (Ghelfi et al., 2024; Tran et al., 2024; Benedetti et al., 2025).

The framework's focus on gambling types and industry practices is empirically reflected in the typological analysis of gambling platforms. The dominance of lotto outlets (422), followed by sports betting (145), illustrates how low-entry, high-frequency gambling products have proliferated in Ibadan. From a conceptual standpoint, these gambling forms are associated with differential harm profiles. Lotto and sports betting, especially when offered daily and embedded in informal kiosks, align with gambling products designed to sustain continuous engagement and habitual participation (Schüll, 2012;Hing et al., 2022; Whelan et al., 2025). The study's findings that most outlets operate from temporary or semi-permanent structures further underscore the informality and minimal regulatory oversight characterising these gambling types. The observation and evidence could be correctly interpreted as reinforcing the framework's claim that product design and delivery systems interact with socio-economic vulnerability, intensifying gambling risks (Gordon & Reith, 2019; Livingstone & Rintoul, 2020; Arslan, 2025). The convergence of gambling with everyday livelihoods, particularly in informal economic zones, demonstrates how gambling becomes routinised rather than exceptional.

On the issue of gambling exposure, conceptualised as the intensity and frequency of interaction between individuals and gambling opportunities (Hilbrecht et al., 2020; Noble et al., 2022; Gruben et al., 2024). This dimension is empirically substantiated by findings showing that gambling outlets (online and onsite) are disproportionately concentrated in high-density, low-income, and informal economic areas such as Beere, Mokola, Sango, Bodija Market,

Agbowo, and Iwo Road. This trend challenges the assumption that online gambling primarily involves literate individuals in a structured setting (Barone & Graffigna, 2025). However, it is linked to the structure of the informal economy, where daily cash flows, precarious livelihoods, and minimal regulation prevail (La Porta & Shleifer, 2014; Ulyssea, 2020; Raybould et al., 2021; Weller et al., 2025; Kasim et al., 2025). These conditions amplify exposure, as residents encounter gambling opportunities repeatedly during routine activities such as commuting, trading, and social interaction. This linkage reinforces the framework's assertion that harmful gambling is structurally produced, not merely behaviourally chosen. The study extends existing literature by demonstrating how spatial proximity and urban form act as exposure mechanisms, a dimension often overlooked in gambling research that focuses primarily on individual-level determinants.

The analysis of planning compliance reveals that 353 out of 581 gambling outlets are non-compliant with regulations, indicating systemic planning failures ($Z = -2.60$, $p < 0.01$). This widespread non-compliance highlights issues in development control enforcement, reflecting broader oversight failures (Fakunle et al, 2020). Many gambling establishments operate within informal urban systems with unclear boundaries, leading to compromised safety and accessibility due to encroachment on public spaces. These findings resonate with public health models that link the accessibility and location of gambling venues to community gambling patterns. Additionally, the research supports existing literature on urban informality (Wahab & Agbola, 2017; Kasim et al., 2020), showing how inadequate regulation can exacerbate social and environmental risks, affecting community well-being and safety.

While the empirical component does not directly measure treatment availability, the findings indirectly reveal a resource deficit, evidenced by unregulated proliferation, weak controls, and minimal harm-minimisation infrastructure. The absence of resources to prevent harmful gambling echoes the contradiction between aggressive market expansion and limited public health intervention, critiques the "responsible gambling" marketing models that place disproportionate emphasis on individual responsibility (Markham & Young, 2015; Livingstone & Rintoul, 2020; Guillou-Landreat et al., 2021; Michael et al., 2025 & Savolainen et al., 2025). This reinforces the framework's call for a public health and planning-led response, rather than reliance on behavioural correction alone.

V. CONCLUSION & RECOMMENDATIONS

5.1 Conclusion

Over the past few decades, Nigeria has witnessed the emergence of numerous forms of gambling, which have rapidly gained popularity among its populace. In cities such as Ibadan, Nigeria and across developing economies, diverse gambling opportunities are now prevalent, becoming prominent urban fixtures, woven into the daily lives of countless individuals. Evidence suggests that the proliferation of gambling platforms has far-reaching repercussions, as the gambling industry is intertwined with a host of socio-economic challenges that can adversely affect the financial stability of bettors. The negative externalities associated with gambling extend beyond individual gamblers and can engender wider societal impacts, including increased crime rates and other societal vices that burden host communities. The analysis of the typology and spatial distribution of these platforms illustrates the adaptive nature of the gambling sector and reveals critical insights into urban planning challenges and economic dynamics. The findings empirically validate the conceptual framework of harmful gambling's assumptions, and the discussion extends these insights into the domain of urban planning and policy. The study makes a significant conceptual contribution by demonstrating that gambling-related harm is spatially produced and maintained. It establishes that informality acts as a risk multiplier and emphasises that planning regulation is a vital and critical, yet underutilised harm-prevention tool. By explicitly linking harmful gambling to land-use regulation, spatial clustering, and informal urban systems, the study advances interdisciplinary scholarship at the intersection of gambling studies, urban planning, and public health. The findings provide spatial and statistical evidence that validates the framework's structural emphasis and situates the results within broader debates on informality, governance, and urban management. This tight linkage strengthens the study's analytical coherence and underscores its relevance for planners, policymakers, and public health practitioners in comparable urban contexts in developing countries. Addressing the concerns arising from the proliferation of gambling outlets will require concerted efforts from stakeholders, urban planners, and policymakers to create a balanced and sustainable gambling environment. This situation necessitates a reevaluation of urban planning and policies that address the underlying causes of gambling-related issues, prioritising community well-being and resilience.

5.2 Recommendations

To foster a balanced and sustainable environment concerning gambling, it is essential to consider gambling activities within a broader context rather than in isolation. To achieve this, the following key strategies are proposed. Firstly, there should be strict enforcement of planning regulations such as setback and buffer zone mandates, along with density caps, to prevent the clustering of gambling establishments. This approach would help limit the number of gambling licenses issued in a given area and deter the creation of concentrated betting hubs. Furthermore, it is essential

to reclassify gambling outlets as high-impact entities, thereby requiring stricter planning approvals. Introducing a local environmental or social tax for gambling operators can also generate revenue for community improvements. These funds should be allocated towards enhancing public spaces, improving community facilities, and supporting social cohesion initiatives, as well as funding educational campaigns that address the negative impacts of gambling.

To mitigate the presence of informal gambling outlets, incentives should be provided for these establishments to register with local authorities. This registration process would not only facilitate government oversight but also enhance the capacity to monitor their social impact on the community. By bringing these venues into the open, the government can more effectively enforce planning laws and regulations that are currently being overlooked and make sure new establishments comply with extant regulations, thereby fostering safer environments and promoting responsible management practices within the industry. Finally, the integration of public health and urban planning requires training for urban planners in collaboration with public health officials to identify gambling hotspots. Utilising socioeconomic and health data can facilitate informed decision-making regarding resource allocation, ultimately promoting healthier and more resilient communities.

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