

Influence of Billboard Advertising on Consumers' Recall, Preference and Patronage of Coca-Cola Soft Drink Brands in Ibadan Metropolis, Nigeria

By

¹Daniel NWANMERENI (Ph.D) ORCID: <https://orcid.org/0000-0003-19409976>

²Kennedy C. M. OBI (Ph.D) ORCID: <https://orcid.org/0009-0008-1537-7886>

²Olalekan AYOADE; ¹Olanike J. OLUSOLA <https://orcid.org/0000-0001-8313-1986>;

²Olaolu Olaruku OLAIMOLU; ²Akintomide AKINBISOYE; & ²Emmanuel Ayobami AKANBI

¹Department of Advertising and Public Relations, Faculty of Communication and Media Studies, Bamidele Olumilua University of Education, Science and Technology (BOUESTI), Nigeria.

²Department of Media Studies, Faculty of Communication and Media Studies, Bamidele Olumilua University of Education, Science and Technology (BOUESTI), Nigeria.

Corresponding Author: Dr. Kennedy C.M. Obi (obi.kennedy@bouesti.edu.ng)

Abstract

This study examined the influence of billboard advertising on consumers' recall, preference, and patronage of Coca-Cola soft drink brands in Ibadan Metropolis, Nigeria, with particular emphasis on the role of strategic billboard placement. Anchored on the Theory of Planned Behaviour and Brand Attachment Theory, the study adopted a survey research design. Data were collected from 396 respondents using a structured questionnaire. Analysis was conducted using weighted mean scores, supported by reliability and construct validity assessments. Findings revealed that Coca-Cola billboard advertisements in Ibadan Metropolis are highly visible, visually appealing, and easily recalled by consumers. The results further showed that billboard advertising is perceived to influence consumers' brand preference and patronage, particularly through repeated exposure to emotionally engaging messages. In addition, strategic placement of electronic display billboards along high-traffic routes was found to enhance exposure frequency and reinforce consumers' purchase tendencies. The study concludes that billboard advertising functions as a holistic influence mechanism that supports recall, preference, and patronage within a unified perceptual framework. It is recommended that Coca-Cola and similar brands should prioritise billboard placement along busy roads, intersections, and congestion points to maximise exposure and visibility. Also, billboard advertising by businesses should be integrated with other marketing communication channels to reinforce brand messages and consumer engagement.

Keywords

Billboard advertising; Consumer recall; Brand preference; Patronage behaviour; Coca-Cola;

Introduction

Billboard advertising is a prominent feature of urban public space in Nigeria, and Ibadan Metropolis is no exception. As one of the country's largest commercial cities, Ibadan experiences sustained traffic flow across major corridors and business districts, creating repeated exposure opportunities for outdoor advertising messages. In such environments, billboards can function as high-frequency reminder media capable of strengthening brand salience and influencing consumers' choice at or near points of purchase.

In Ibadan Metropolis, billboards promoting consumer goods and services are conspicuously positioned around high-traffic roads, markets, roundabouts and major intersections. These billboards often combine concise copy, bold colours and vivid imagery designed to capture attention under conditions of limited viewing time, particularly for drivers and pedestrians who have only a few seconds to process promotional messages. Consistent with this reality, outdoor advertising messages in the city are typically designed to be direct and easily recognisable, enabling quick comprehension and recall.

Within the soft drink category, the Nigerian Bottling Company Limited (NBC) - the bottling partner for The Coca-Cola Company - appears to have leveraged Ibadan's high-traffic locations through sustained billboard placements showcasing Coke, Fanta and Sprite. Such placements are commonly located along major highways, near markets and around busy intersections where recurring congestion increases the likelihood of repeated message exposure. In addition to these billboard placements, soft drinks are widely sold through informal "on-the-go" retail channels such as hawking at traffic gridlocks and bus stops, as well as through restaurants and shops that display multiple brands in visible cooling units.

Although several soft drink brands are available in Ibadan and appear widely distributed along highways and traffic intersections, everyday observation suggests that Coca-Cola brands may enjoy comparatively higher patronage in many high-traffic settings. For example, in gridlocked areas, travellers can be seen purchasing and consuming Coke more frequently than other competing brands, while Fanta and Sprite also appear common in similar contexts. This pattern raises an empirical question about whether billboard advertising - especially electronic display billboards placed in strategic locations - reinforces brand recall and contributes to consumer preference and reported patronage in Ibadan's competitive soft drink market.

Existing Nigerian studies have examined advertising and consumer patronage of soft drinks using constructs such as brand equity, brand awareness and perceived quality (Adeyeri & Adedoyin (2019), as well as the growing role of digital advertising in consumer buying behaviour (Daniel & Viswanadham, 2022). However, there is comparatively limited empirical focus on billboard advertising as a repeated-exposure, point-of-sale reinforcement mechanism in traffic and high-contact public spaces, particularly within the Ibadan context. This study addresses that gap by examining the relationship between billboard advertising, consumer recall, and consumer preference/patronage of Coca-Cola soft drink brands in Ibadan Metropolis.

A Brief History of Ibadan Metropolis

Ibadan is the capital of Oyo State in Nigeria's South-West geopolitical zone. Established in 1829, the city developed from a military camp into a major urban centre and later served as the administrative headquarters of the former Western Region during the colonial and early post-independence periods. Ibadan remains significant to Nigeria's political, economic and educational development.

Economically, Ibadan is a large commercial city with a vibrant informal sector and active retail and trade networks. Major markets such as Bodija, Dugbe and Oje contribute substantially to daily commerce, including the distribution and sale of fast-moving consumer goods. The city also hosts a wide range of industries and services - including banking, telecommunications, education, healthcare and manufacturing - supported by a large and diverse population estimated at nearly four million residents. Its sprawling structure combines densely populated traditional neighbourhoods with expanding urban and suburban centres.

These characteristics - large population size, heavy traffic flows, active retail culture and substantial consumer movement - make Ibadan a relevant site for studying billboard advertising exposure and its influence on consumer brand preference within the soft drink market.

Statement of the Problem

Several soft drink brands are distributed and sold across Ibadan Metropolis. In highways and strategic traffic intersections, hawkers frequently take advantage of traffic gridlocks to sell multiple soft drink brands. Restaurants and shops similarly stock competing brands and display them in visible cooling units to meet diverse consumer preferences.

Despite this apparent availability of multiple competing soft drink brands, everyday observation suggests that Coca-Cola brands - especially Coke - may receive higher patronage in several settings within Ibadan, including traffic gridlocks and restaurants, with Fanta and Sprite also commonly purchased. Since point-of-sale advertising is designed to reinforce brand preference through repeated exposure at decision points, it is plausible that strategically placed billboard advertising contributes to consumer recall, attraction and reported patronage of Coca-Cola brands in the metropolis.

The core problem, therefore, is whether billboard advertising - particularly the strategic placement of Coca-Cola electronic display billboards in high-traffic areas - meaningfully influences consumers' recall, preference and patronage of Coca-Cola soft drink brands in Ibadan Metropolis?

Objectives of the Study

The aim of this study is to examine the influence of billboard advertising on consumers' preference and patronage of Coca-Cola soft drink brands in Ibadan Metropolis. Specifically, the study seeks to:

1. evaluate consumers' level of recall of Coca-Cola billboard advertisements in Ibadan Metropolis;
2. examine the impact of billboard advertising on consumers' preference for Coca-Cola soft drink brands;
3. determine whether the strategic placement of Coca-Cola electronic display billboards in Ibadan Metropolis influences consumers' patronage of the company's soft drink brands.

Research Questions

1. What is the level of consumers' recall of Coca-Cola billboard advertisements in Ibadan Metropolis?

4. To what extent does billboard advertising influence consumers' preference for Coca-Cola soft drink brands in Ibadan Metropolis?
5. How does the strategic placement of Coca-Cola electronic display billboards influence consumers' patronage of Coca-Cola soft drink brands in Ibadan Metropolis?

Literature Review

Billboard Advertising as Outdoor Advertising Communication

According to Soto-Acosta (2019), billboard advertising is a classic resilient type of outdoor media that uses large and eye-catching displays in busy cities to spread commercial messages. Over time, this medium has changed dramatically, moving from still billboards to digitally-enhanced formats that enable marketers to create more engaging and dynamic campaigns. It is a form of outdoor advertising that uses large-format displays placed in public spaces to deliver brand messages to mass audiences. Unlike many media that require deliberate selection (e.g., television channels or social media feeds), billboards operate largely through incidental exposure - people encounter the message while commuting, shopping, or engaging in routine urban activities. In dense urban environments such as Ibadan Metropolis, billboards are frequently positioned along major roads, at roundabouts, near markets and around congested intersections where traffic volume and viewing frequency are high. In these locations, billboards serve as "high-repetition" promotional cues capable of reinforcing brand salience through repeated contact. They now feature high-resolution LED screens that can display rotating advertisements, animated sequences and realtime updates. This digital revolution not only enhances visual impact but also allows advertisers to swap contents remotely and schedule different advertisements for morning and evening traffic peaks, maximising relevance to serve specific audiences (Gebreselassie, 2019; Nwankwo & Okoro, 2020)..

Billboards may be static (printed) or dynamic (digital/electronic). Digital billboards often have an advantage in attention capture because moving visuals, changing frames and illumination can increase message visibility, especially at night or in poor weather conditions. However, whether static or digital, the communicative effectiveness of billboards typically depends on message simplicity, readability, visual contrast, strategic placement, and exposure frequency.

Billboard Exposure, Attention, and Message Processing

The persuasive potential of billboard advertising begins with exposure. Exposure refers to the extent to which audiences come into contact with billboard messages, often measured through factors such as frequency of encounter (how often people pass the billboard) and visibility (whether the billboard is clearly seen). Yet, exposure alone does not guarantee influence. For billboard messages to affect consumer outcomes, exposure must translate into at least minimal cognitive processing - such as attention, recognition, or memory encoding (Kumar & Gupta, 2019; Ali & Hassan, 2021; Babst, 2020).

Billboards are commonly encountered under conditions of limited time, distraction and competing stimuli such as traffic, pedestrians, noise, mobile phones, and environmental signage. As a result, billboard design must be optimised for rapid comprehension. Short copy, recognisable brand elements (logo, colours, product packaging), and emotionally appealing visuals can support quick processing. Where billboards achieve repeated exposure in high-traffic areas—particularly during traffic congestion—the probability of message processing and memory reinforcement increases ((Jin, Liu, Zhang & Wang, 2025). In Ibadan, for instance, brands often cluster billboards along key traffic corridors, such as, the Lagos-Ibadan Expressway and around the Bodija Market to tap into the dense flow of motorists and pedestrians. Their "always-on" attribute means that even a single, well-designed billboard can generate thousands of daily impressions over weeks and months with minimal additional expense.

Billboard Advertising and Brand Recall

Brand recall refers to a consumer's ability to remember a brand when prompted by a product category or a buying situation. In billboard contexts, recall can be strengthened through repeated exposure, distinctive brand cues, and consistent message presentation over time. Where consumers repeatedly encounter a billboard in routine travel routes, the advertising message can become familiar, thereby improving recognition and recall at moments of choice. Since consumers tend to purchase products from brands they can easily recall, high brand recall often driven by frequent exposure to billboard advertisements can significantly increase consumer patronage (Soto-Acosta, 2019). The visual attributes of billboard advertising serve as memory cues that help consumers encode and retrieve the brand from their mental inventory (Gebreselassie, 2019).

In this study's context, brand recall is directly relevant because the objectives include assessing consumers'

ability to recall Coca-Cola billboard advertisements in Ibadan. When recall is strong, consumers may more easily retrieve the brand from memory when deciding what soft drink to purchase, especially in quick decision situations such as roadside purchases and restaurant ordering.

Consumer Preference in the Soft Drink Market

Consumer preference refers to the tendency to favour one brand over alternatives when making consumption or purchase decisions. Preference is shaped by multiple influences including product taste, price, availability, prior satisfaction, cultural meanings, peer influence, and exposure to persuasive communication. In competitive markets where multiple brands are available, advertising can operate as a differentiating influence by reinforcing brand meanings, shaping attitudes, and supporting top-of-mind awareness (Mairura, Ochieng & Wekesa, 2023). Within the soft drink category, preference may manifest as repeated selection of specific brands (e.g., Coke, Fanta or Sprite) over alternatives. Preference is not identical to purchase behaviour, but it is often a strong predictor of choice, especially when availability and affordability are stable (Kalilu & Alimi, 2022). In this study, the focus on “preference” is consistent with the objective of examining billboard advertising’s influence on consumers’ preference for Coca-Cola soft drink brands.

Patronage as Purchase/Repurchase Behaviour

Patronage refers to actual purchase or repurchase behaviour - buying a product repeatedly over time. Patronage is influenced by preference, but it is also shaped by convenience, access, pricing, peer influence and situational factors (Mairura, Ochieng, & Wekesa, 2023; Popoola, & Ojebuyi, 2018; Igwe, & Nwaizugbo, 2020). In the Ibadan context, soft drinks are frequently purchased in settings such as traffic gridlocks, bus stops and restaurants, where decisions may be quick and influenced by what is visible, familiar and immediately available.

Because the study specifically targets whether strategic placement of Coca-Cola electronic billboards influences patronage, it is conceptually important to distinguish between preference (favouring a brand) and patronage (buying/repurchasing the brand). A credible advertising-effect argument is that billboard exposure strengthens recall; recall supports preference; and preference, together with availability and affordability, supports patronage.

Strategic Placement of Billboards and Advertising Effectiveness

Strategic placement refers to positioning billboards where target audiences are most likely to encounter and attend to the messages. In urban outdoor advertising, strategic placement is commonly linked to high traffic density; recurrent congestion and stop-and-go movement; proximity to purchase points (shops, markets, restaurants); visibility (distance, viewing angle, obstruction); and lighting conditions (especially for electronic billboards).

In practice, billboards placed along frequently travelled routes can create repeated exposure, which is important for memory reinforcement (Gebreselassie, 2019). When placement also coincides with purchase points or decision contexts, billboard messages may function as reminders that influence brand choice at the moment of purchase. Modern billboard advertising combines traditional strengths with new technological capabilities to remain one of the most versatile outdoor media formats (Osborne & Coleman, 2008). They now feature highresolution LED screens that can display rotating advertisements, animated sequences and realtime updates. This digital revolution not only enhances visual impact but also allows advertisers to swap contents remotely and schedule different advertisements for morning and evening traffic peaks, maximising relevance to serve specific audiences (Gebreselassie, 2019; Nwankwo and Okoro, 2020).

Outdoor Advertising Moderating Variables

Despite its broad reach and visual impact, the effectiveness of billboard advertising is not uniform across all audiences or environments. A range of moderating variables can influence how consumers perceive, interpret and respond to billboard advertisements. They include: demographics, (Wells, Burnett & Moriarty, 2000), trust, (Kumar & Gupta, 2019), information overload, (Ndimele & Innocent, 2006), billboard height, size, light, colour and distance from major road, (Nwankwo & Okoro, 2020), exposure duration and timing (Brown and Smith, 2019; Ali & Hassan, 2021). Last but not the least is individual consumer motivation.

Theoretical Framework

Theory of Planned Behaviour (TPB)

The Theory of Planned Behaviour (TPB), formalised by Ajzen (1991), explains behaviour as a function of behavioural intention, which is shaped by three determinants: attitude toward the behaviour, subjective norms,

and perceived behavioural control. In consumer behaviour contexts, TPB suggests that purchase intention - and eventually purchase behaviour - is stronger when consumers (a) evaluate the purchase positively, (b) perceive social approval for the purchase, and (c) believe they have the resources and opportunity to make the purchase. TBS fits into this study because billboard advertising is treated as an influence mechanism that can contribute to

TPB pathways in the following ways:

- a. Attitude pathway: billboard visuals and positive associations can shape favourable attitudes toward Coca-Cola brands (e.g., seeing the brand as enjoyable, refreshing and socially acceptable).
- b. Subjective norm pathway: billboard portrayals of social consumption (friends, family, admired figures) can reinforce perceptions that the brand is socially endorsed in Nigeria's socially-influenced consumer environment. In social environments where peer influence and shared norms shape consumption behaviour, billboard portrayals of Coca-Cola as a drink enjoyed by friends, families, or admired public figures may reinforce perceptions that the brand is socially acceptable and widely approved.
- c. Perceived behavioural control pathway: billboard messages can indirectly reinforce accessibility/availability cues, increasing the consumer's confidence that the product is affordable and readily available.

TPB is used to interpret variables the study actually measures. Because the current study measures recall, preference and patronage, TPB is positioned here as a behavioural explanation framework supporting patronage (behaviour) and preference (evaluation), while recall is treated as an enabling cognitive mechanism that strengthens attitude and intention. In short: TPB explains the behavioural logic behind why billboard exposure can translate into patronage, provided it shapes evaluation (preference/attitude), social reinforcement, and perceived access. Hence it is robust in explaining consumer decisions and behavioural patterns (Yin et al., 2021).

Brand Attachment Theory

Brand Attachment Theory, rooted in psychological attachment perspectives, explains the emotional bond consumers develop toward brands, such that brands become part of consumers' self-concept and emotional life. Brand attachment goes beyond habit or satisfaction; it reflects a deeper emotional connection that predicts loyalty, advocacy and resistance to switching even in competitive markets. It refers to the strength of the emotional bond between a consumer and a brand, wherein the brand becomes part of the individual's self-concept, identity and emotional life. This attachment transcends mere satisfaction or habit; it represents a deeper psychological connection that compels consumers to maintain a relationship with the brand over time. It is rooted in psychological constructs; namely: trust (in terms of quality of the brand), satisfaction (in terms of the brand meeting the interest of the consumer) and distribution (being readily available) (Nwabueze, 2015; Ohiagu, 2015). Among others, Mairura et al. (2023) have validated this framework within marketing and advertising contexts, emphasizing the relevance in shaping consumer loyalty and long-term purchasing patterns.

Brand attachment theory is relevant to this study because repeated billboard exposure can function as a reinforcement mechanism that embeds brand meanings into consumers' daily experiences. Emotionally engaging billboard visuals - joy, belonging, happiness, unity - can support deeper psychological connection to the brand over time. In this study, Brand Attachment Theory helps explain why repeated exposure may strengthen preference (favouring Coca-Cola brands) and why preference can become sustained patronage (repeat purchase), especially when quality and distribution are stable.

Conceptual Model

(recall → preference → patronage strategic placement), the study adopts the

Based on the study objectives following conceptual model:

Strategic Billboard Placement → Billboard Exposure/Visibility → Brand Recall → Brand Preference Patronage (Purchase/Repurchase)

Strategic placement along high-traffic routes, intersections, congestion points increase exposure frequency while exposure frequency strengthens recall (memory accessibility of Coca-Cola brands). Recall supports preference (favourable evaluation and top-of-mind advantage) while preference contributes to patronage, especially where availability and affordability support purchase behaviour.

TPB explains how preference/attitude and perceived access contribute to patronage behaviour. Brand

Attachment explains how repeated exposure and positive emotional cues can sustain preference and patronage over time. In this study therefore, billboard advertising is treated as an influence mechanism that can contribute to TPB pathways in the ways previously mentioned.

Review of Empirical Studies

Empirical research across Nigeria and comparable markets suggests that outdoor and billboard advertising can influence consumer outcomes such as awareness, recall, preference, and patronage (Osborne & Coleman, 2008; Babst, 2020). However, the magnitude and pathway of influence often depend on factors such as billboard visibility, creative execution, strategic placement, commuter flow patterns, and proximity to purchase contexts (Gebreselassie, 2019).

In the Nigerian context, studies generally support the view that outdoor advertising contributes to consumer awareness and behavioural outcomes. For example, research conducted in Port Harcourt indicates that billboard advertising variables—such as placement, visibility, readability, and creativity—are associated with consumer response patterns in urban environments, implying that repeated exposure to outdoor messages can influence consumer behaviour (Umor, 2021). Similarly, evidence from Abuja suggests that outdoor advertising enhances direct brand contact and repeated exposure, reinforcing its role as an effective memory cue in metropolitan settings where commuters frequently encounter billboard messages (Mustapha, Ogande, & Akpede, 2025).

Other Nigerian studies point to behavioural outcomes beyond recall. For instance, studies conducted in South-East Nigeria report a relationship between billboard advertising exposure and consumer patronage, indicating that billboard messages may translate into purchase-related outcomes in competitive product categories (Igwe & Nwaizugbo, 2020; Agboeze, 2025). In Lagos, empirical research also associates outdoor advertising exposure with product awareness and consumer buying behaviour, suggesting that billboards not only trigger awareness but can also shape evaluative tendencies toward advertised products (International Policy Brief, 2023).

Within Ibadan specifically, existing studies have examined billboard communication quality, message clarity, and audience reception, particularly among youths, implying that billboard advertising may contribute to longer-term consumer attachment when messages are culturally resonant and strategically deployed (Kalilu & Alimi, 2022; Popoola & Ojebuyi, 2018). Taken together, these Nigerian studies provide broad evidence that billboard and outdoor advertising remain relevant for consumer outcomes—especially awareness, recall, preference, patronage, and loyalty—across different metropolitan contexts.

Studies outside Nigeria reinforce the potential of advertising to influence consumer buying behaviour in soft drink markets. For instance, research on soft drink advertising demonstrates a significant relationship between advertising exposure and consumers' buying behaviour, indicating that promotional communication can shape decision-making within product categories characterised by frequent purchase cycles (Guirruta, 2020; Mtebe & Raphael, 2022). Although contextual differences exist, these findings strengthen the theoretical plausibility that repeated promotional exposure—including outdoor advertising—can shape brand preference and purchase patterns. Comparative studies suggest that billboard advertising is strongly linked to recall-related outcomes. Evidence from international contexts, including studies conducted in India, shows that repeated exposure to outdoor advertising in high-traffic urban environments enhances brand recall and top-of-mind awareness at moments of choice (Osborne & Coleman, 2008; Singh & Sharma, 2019).

Beyond recall, studies have linked billboard advertising to deeper psychological outcomes such as emotional engagement and attention. Research on emotional branding and advertising design highlights how visually compelling billboard executions can evoke emotional resonance, which may subsequently shape brand preference and repeat purchase intentions (Kalilu & Alimi, 2022). In addition, studies adopting a visual-attention perspective demonstrate that attention mechanisms—such as gaze duration, message simplicity, and visual hierarchy—explain why some billboard messages are more effective than others (Jin et al., 2025). These insights underscore that billboard influence is not solely a function of exposure frequency but also of attention, processing quality, and emotional engagement.

A consistent pattern across billboard research is the moderating role of placement and positioning. Empirical studies demonstrate that optimal billboard placement along high-traffic routes, intersections, and congestion points significantly enhances advertising reach and persuasive impact by increasing exposure frequency and message visibility (Gebreselassie, 2019; Babst, 2020). This is particularly relevant to Ibadan, where traffic

congestion and commuter movement patterns may amplify repeated exposure, thereby strengthening recall, preference, and purchase interest.

Although Nigerian studies have examined outdoor advertising outcomes across major cities such as Lagos, Port Harcourt, Abuja, and parts of South-East Nigeria, and some have explored billboard communication in Ibadan, a clear gap remains in empirically integrating three linked outcomes: (1) recall of billboard advertisements, (2) consumer preference, and (3) the role of strategic placement in shaping patronage. Many prior studies focus on single outcomes or treat outdoor advertising broadly without explicitly connecting strategic placement, recall, preference, and patronage within one analytical chain.

This study advances the literature by empirically examining this integrated pathway within Ibadan Metropolis, focusing specifically on Coca-Cola billboard advertising and consumer response patterns in a high-traffic urban environment where repeated exposure is likely.

Research Methodology

This study adopted a quantitative, descriptive survey design to examine how billboard advertising relates to consumers' recall, preference and patronage of Coca-Cola soft drink brands in Ibadan Metropolis. The survey approach was considered appropriate because it enables the systematic collection of standardized responses from a relatively large population at a point in time, thereby supporting descriptive and associative inferences about key constructs (Apuke, 2017).

Study Area and Population of the Study

The study area was Ibadan Metropolis, Oyo State, Nigeria. The population comprised adult residents of Ibadan Metropolis with varying demographic characteristics. Consistent with the study's focus on consumer response to billboard advertising, the target population for analysis was adults who were potential or actual soft-drink consumers within public consumption and purchase contexts in the metropolis.

According to 2006 National Population Commission (NPC), Ibadan Metropolis (made up of five Local Government Areas) was 1,889,776 (see oyostate.gov.ng). Using the formula: $P_t = P_0(1+r)^n$, the 2026 population of the metropolis is estimated to be 3,548,648 (based on NPC 3.2 growth rate).

Sample Size Determination

A sample size of 400 respondents was determined using Taro Yamane's sample size formula: $n = N / [1 + N(e^2)]$, Wimmer & Dominick, (2011); Ochonogor & Nwachukwu, (2024): where n is the sample size, N is the population size, and e is the margin of error (0.05 at 95% confidence). Substituting $N = 3,548,648$ and $e = 0.05$ produced an estimated sample size of approximately 400 respondents, which guided field administration.

$$n = \frac{3,548,648}{1 + 3,548,648 (0.05)^2} = \frac{3,548,648}{8,872.62} = \frac{3,548,648}{9,302.225} = 399 = 400$$

Sampling Technique and Recruitment Procedure

The study employed purposive and convenience sampling using an intercept survey procedure conducted in high-contact consumption contexts within Ibadan Metropolis.

Eligibility criteria for participation were as follows:

- Respondents were 18 years and above.
- Respondents had lived in or regularly moved within Ibadan Metropolis and had routine exposure to major traffic routes/areas where billboards are located.
- Respondents were soft-drink consumers (i.e., had consumed any soft drink within the last one month) or were willing buyers in common purchase settings.

Recruitment was carried out through face-to-face intercepts at motor parks, around the Challenge Roundabout corridor, and at selected restaurants (settings where soft-drink consumption and purchase decisions commonly occur). Travelers and restaurant patrons were approached systematically as they became available, while hawkers were included where they were available and met eligibility criteria (especially those observed consuming soft drinks). Participation was voluntary and anonymous.

Description of Research Instrument

Data were collected using a structured questionnaire designed to measure the study constructs: (i) consumers' recall of Coca-Cola billboard advertisements, (ii) perceived influence of billboard advertising on preference/patronage of Coca-Cola soft-drink brands, and (iii) perceived effects of strategic placement of Coca-Cola electronic display billboards on patronage. Items were measured using a five-point Likert response format: Strongly Agree (4), Agree (3), Disagree (2), and Strongly Disagree (1).

This eliminates the limitation of forced-choice imposed by four-point Likert response format adopted by Akanbi (2025, unpublished).

Validity and Reliability of Procedures

To ensure content validity, the questionnaire was reviewed using expert criteria of relevance, clarity and construct coverage. Items were refined for clarity, reduced ambiguity, and aligned with study constructs, objectives and theoretical framework. The final instrument adopted a 4-point Likert scale (4=Strongly Agree to 1=Strongly Disagree). Pilot test was conducted using 40 respondents in a similar context to assess clarity and completion time. Internal consistency reliability was assessed using Cronbach's alpha. All construct scales demonstrated excellent reliability: Visibility and Recall ($\alpha = 0.996$), Impact/Patronage ($\alpha = 0.989$), and Strategic Placement ($\alpha = 0.995$), exceeding the minimum acceptable threshold of $\alpha \geq 0.70$.

Table X. Internal Consistency Reliability (Cronbach's Alpha) by Construct (N=396)

Construct	Items	N	Cronbach's α	Threshold	Interpretation
A: Visibility & Recall	A1–A3	396	0.996	= 0.70	Excellent
B: Impact/Interest & Patronage	B1–B3	396	0.989	= 0.70	Excellent
C: Strategic Placement	C1–C3	396	0.995	= 0.70	Excellent

Source: Field Survey, 2026.

Note: Items were coded on a 4-point Likert scale (SA=4 to SD=1). $\alpha \geq 0.70$ indicates acceptable reliability. The extremely high alpha values may suggest item redundancy and conceptual overlap among constructs.

Construct validity was examined using exploratory factor analysis. Sampling adequacy was excellent (KMO = 0.913) and Bartlett's test of sphericity was significant ($\chi^2(36) = 12243.04$, $p < 0.001$), confirming the suitability of the data for factor analysis. Eigen value inspection revealed a dominant first factor, indicating a largely unidimensional structure and strong inter-item correlations.

Table Y. Exploratory Factor Analysis (EFA) Summary (N= 396)

EFA Component	Statistic	Criterion	Decision / Interpretation
Kaiser–Meyer–Olkin (KMO)	0.913	= 0.60 (acceptable)	Excellent sampling adequacy
Bartlett's test of sphericity	$\chi^2(36) = 12243.04$, $p < 0.001$	$p < 0.05$	Correlation matrix is factorable
Eigenvalues (factor retention)	Factor 1 ~ 8.81; remaining < 1	Eigenvalue > 1	Dominant single factor; unidimensional tendency

Source: Field Survey, 2026.

Note: EFA was performed on the 9 items (A1–C3). Results indicate a dominant first factor, suggesting strong overlap among the proposed sub-dimensions

Method of Data Collection

A total of 400 questionnaires were administered. Of these, 396 were correctly completed and returned, yielding a response rate of 99%. Data analysis was conducted using only valid returns ($n = 396$).

Method of Data Analysis

The study presented findings in tables and used a Weighted Mean Score (WMS) approach based on the four point Likert scale. WMS was computed as: $WMS = \sum(f \times w) / N$, where f is the frequency of each response category, w is the assigned weight (SA=4, A=3, D=2, SD=1), and N is the number of respondents (396). A decision rule is

stated a priori. The midpoint cut-off is 2.5; thus, items with $WMS \geq 2.5$ are interpreted as 'Accepted/Agreed', while $WMS < 2.5$ are interpreted as 'Rejected/Disagreed'.

To obtain data for the study, 400 copies of the questionnaire were administered to the respondents. Of this number, a total of 396 (99%) copies were correctly filled and returned. The other 4 (1%) copies were not returned. Data analysis was based on the copies that were correctly filled and returned.

Data Presentation and Analysis

Table 1: Consumers' recall and perception the visibility of Coca-Cola billboard advertisements.

S/N	Items		SA	A	D	SD	Total	WMS	Remark
1	Coca-Cola billboards in Ibadan Metropolis (including around Challenge Roundabout) make Coca-Cola soft drink brands more visible.	F	150	155	52	39	396		
		WS	600	465	104	39	1208	3.05	Accepted
2	Coca-Cola billboards in Ibadan Metropolis are visually appealing.	F	138	161	56	41	396		
		WS	552	483	112	41	1188	3	Accepted
3	Within the last one month, I can easily recall Coca-Cola billboard advertisements I have seen in Ibadan Metropolis.	F	145	160	50	41	396		
		WS	580	480	100	41	1201	3.03	Accepted

Source: Field Survey, 2026.

As shown in Table 1, respondents generally expressed agreement that Coca-Cola billboard advertisements are visible and memorable as shown by weighted mean score (WMS) of 3.05 which indicates strong agreement among respondents; visually appealing," with a WMS of 3.0, meeting the acceptance threshold; and easy to recall as indicated by WMS of 3.03 which means that . exposure to Coca-Cola billboard advertisements is sufficiently frequent or salient to support short-term recall among consumers. These findings provide descriptive evidence that billboard advertising is associated with a high level of consumer recall, thereby addressing Research Question One.

Table 2: Impact of billboard advertising on consumers' interest and patronage of Coca-Cola soft drink brands.

S/N	Items		SA	A	D	SD	Total	WMS	Remark
4	Coca-Cola billboard messages increase my interest in buying Coca-Cola soft drink brands.	F	155	130	62	49	396		
		WS	620	390	124	49	1059	2.67	Accepted
5	Coca-Cola billboard messages influence my choice of Coca-Cola soft drink brands.	F	165	128	50	53	396		
		WS	660	384	100	53	1197	3.02	Accepted
6	Seeing Coca-Cola billboards regularly makes me more likely to buy Coca-Cola soft drink brands again.	F	164	141	51	40	396		
		WS	656	423	102	40	1221	3.08	Accepted

Source: Field Survey, 2026.

Table 2 presents respondents' views on the influence of Coca-Cola billboard advertising on their interest in, and patronage of, Coca-Cola soft drink brands. Respondents generally expressed agreement that Coca-Cola billboard advertising influences their interest and patronage behaviour as indicated by weighted mean score (WMS) of 2.67; consumers perceived Billboard as a factor that shapes their brand choice decisions (WMS of 3.02) . and it reinforces repeat purchase behaviour (WMS = 3.08). Overall, the results indicate that Coca-Cola billboard advertising is associated with increased consumer interest, brand choice influence, and repeat purchase tendency

Table 3: Effects of the strategic placement of Coca-Cola electronic display billboards on consumers' patronage of the company's soft drink brands.

S/N	Items		SA	A	D	SD	Total	WMS	Remark
7	Coca-Cola electronic billboards in Ibadan Metropolis are positioned in locations where many people can easily see them (e.g., busy roads/roundabouts).	F	160	158	38	40	396		
		WS	640	474	76	40	1230	3.1	Accepted
8	Seeing Coca-Cola electronic display billboards in busy locations (e.g., around Challenge Roundabout) reinforces my purchase of Coca-Cola brands.	F	151	157	48	40	396		
		WS	604	471	96	40	1211	3.05	Accepted
9	Seeing Coca-Cola billboard advertisements increases my interest in buying Coca-Cola brands.	F	156	159	37	44	396		
		WS	624	477	74	44	1219	3.07	Accepted

Source: Field Survey, 2026.

Table 3 presents respondents' views on the effects of the strategic placement of Coca-Cola electronic display billboards on their patronage of the company's soft drink brands. Respondents perceive the billboards as being strategically located for maximum exposure (WMS) of 3.1; respondents expressed strong agreement that exposure to electronic display billboards in busy locations reinforces purchase behaviour (WMS) of 3.05; and strategically placed billboard advertisements are associated with increased consumer interest in Coca-Cola products (WMS of 3.07) indicating that strategically placed billboard advertisements are associated with increased consumer interest in Coca-Cola products.

Discussion of Findings

This study examined the influence of billboard advertising on consumers' recall, preference, and patronage of Coca-Cola soft drink brands in Ibadan Metropolis, with particular attention to the role of strategic billboard placement. The discussion is anchored on the Theory of Planned Behaviour (TPB) and Brand Attachment Theory, which together provide explanatory insight into how billboard exposure may translate into consumer evaluation and behavioural outcomes.

Research Question One: What is the level of consumers' recall of Coca-Cola billboard advertisement in Ibadan Metropolis?

Findings from Table 1 indicate that respondents generally agreed that Coca-Cola billboard advertisements are visible, visually appealing, and easy to recall. The weighted mean scores obtained for billboard visibility (WMS = 3.05), visual appeal (WMS = 3.00), and recallability (WMS = 3.03) exceeded the study's acceptance benchmark, suggesting that respondents perceived Coca-Cola billboard advertisements as highly noticeable and memorable within the urban advertising environment of Ibadan Metropolis.

The implication of these findings is that repeated exposure to strategically positioned billboard advertisements may strengthen memory accessibility and enhance brand salience among consumers. Within the framework of the Theory of Planned Behaviour, recall functions as an enabling cognitive mechanism that increases the likelihood that a consumer will consider a particular brand during purchase decision-making. The findings therefore suggest that Coca-Cola billboard advertisements successfully achieved cognitive visibility among consumers. This study supports the findings of Nwankwo and Okoro (2020) that regular exposure through outdoor advertising raises brand awareness and memory. Similarly, Okonkwo and Eze (2020) noted that visually appealing advertising cues such as colours, slogans, and design simplicity influence both cognitive and affective recall of advertised products by consumers.

Research Question Two: To what extent does billboard advertising influence consumer's preference for Coca-Cola soft drink brands in Ibadan Metropolis?

Results from Table 2 reveal that respondents generally agreed that Coca-Cola billboard advertising influences their interest in the brand, affects their brand choice decisions, and reinforces repeat purchase tendencies. This is reflected in the weighted mean scores relating to consumer interest and patronage (WMS= 2.67), brand choice

influence ($WMS = 3.02$), and repeat purchase reinforcement ($WMS = 3.08$). These findings indicate that billboard advertising extends beyond mere awareness creation and may contribute to favourable consumer evaluation and behavioural reinforcement. From the perspective of the Theory of Planned Behaviour, billboard advertising may shape positive attitudes toward Coca-Cola products, thereby increasing the likelihood of patronage behaviour. The findings further imply that consistent billboard exposure may influence consumers' evaluative judgement of the brand and sustain purchase intention.

Brand Attachment Theory also provides explanatory insight into these findings. Repeated exposure to emotionally engaging billboard messages may strengthen consumers' emotional association with Coca-Cola products, especially where the advertisements portray themes such as happiness, refreshment, unity, and social connection. Such emotional associations may contribute to stronger preference and repeat patronage behaviour over time.

The findings are consistent with the position of Adebisi and Owolabi (2022), who observed that repeated advertising exposure contributes to emotional connection and consumer loyalty. Likewise, Guirruta (2020) found that advertising exposure influences buying behaviour in soft drink markets by reinforcing consumer familiarity and positive brand evaluation.

Research Question Three: How does the strategic placement of Coca-cola electronic display billboards influence consumer's patronage of Coca-Cola soft drink brands in Ibadan Metropolis?

Findings from Table 3 indicate that respondents generally perceived Coca-Cola electronic display billboards as strategically positioned in locations capable of maximizing visibility and exposure. These findings suggest that strategic billboard placement plays a significant role in strengthening billboard effectiveness. Billboards located along high-traffic routes, road intersections, and congestion points are likely to increase exposure frequency, thereby improving recall opportunities and reinforcing purchase-related cognition. Within the TPB framework, strategic placement may indirectly strengthen perceived behavioural control by signalling product availability and accessibility.

From the perspective of Brand Attachment Theory, repeated exposure to billboard messages within consumers' daily movement environments may gradually integrate the Coca-Cola brand into routine consumer experience, thereby reinforcing habitual patronage behaviour. The repeated visibility of the brand in familiar urban spaces may also strengthen consumers' perception of the brand as dominant, popular, and socially accepted.

These findings support earlier studies which identified strategic placement as one of the strongest predictors of billboard advertising effectiveness. Gebreselassie (2019) argued that billboard positioning significantly determines audience exposure and message effectiveness, while Babst (2020) emphasized that placement along commuter routes substantially improves advertising reach and consumer attention.

Overall, the findings support the complementary relevance of the Theory of Planned Behaviour and Brand Attachment Theory in explaining billboard advertising outcomes. The results suggest that billboard advertising contributes to cognitive visibility and recall, influences evaluative preference toward the advertised brand, and may reinforce patronage behaviour through repeated exposure and emotional association.

The study therefore supports the conceptual pathway proposed in the research framework, where strategic billboard placement enhances exposure frequency; exposure strengthens recall; recall contributes to preference formation; and preference may subsequently reinforce patronage behaviour. Although the study adopts a descriptive survey approach and does not establish direct causality, the findings provide empirical support for the argument that billboard advertising remains an important influence mechanism within urban consumer environments.

Conclusion

This study examined the influence of billboard advertising on consumers' recall, preference, and patronage of Coca-Cola soft drink brands in Ibadan Metropolis, with particular emphasis on the role of strategic billboard placement. Drawing on the Theory of Planned Behaviour and Brand Attachment Theory, the study provides empirical insight into how outdoor advertising functions as a cognitive and affective influence mechanism within an urban Nigerian consumer environment.

The findings demonstrate that Coca-Cola billboard advertisements in Ibadan Metropolis are highly visible, visually appealing, and memorable to consumers. High levels of recall indicate that billboard advertising effectively enhances brand salience, ensuring that Coca-Cola remains top-of-mind during consumption-related decision-making.

The study further concludes that billboard advertising is perceived by consumers as influencing brand preference and patronage. Repeated exposure to emotionally engaging billboard messages reinforces positive brand

evaluations and strengthens consumers' inclination toward repeat purchase.

In addition, the strategic placement of Coca-Cola electronic display billboards along high-traffic routes and prominent urban locations was found to be an important contextual factor shaping advertising effectiveness.

Overall, the study concludes that billboard advertising operates as a holistic influence mechanism, supporting recall, preference, and patronage within a unified perceptual framework.

Recommendations

1. Coca-Cola and similar brands should prioritise billboard placement along busy roads, intersections, and congestion points to maximise exposure and visibility.
2. Advertisers should emphasise emotionally appealing billboard messages that evoke happiness, refreshment, and social bonding to strengthen brand attachment. They should employ more innovative and culturally-relevant designs to deepen emotional connection. Designs that reflect the cultural affiliations of the community would deepen consumers' attachment to the company's brands.
3. Billboard advertising should be integrated with other marketing communication channels to reinforce brand messages and consumer engagement. Also, billboard designs should reflect local cultural values and consumption contexts to enhance relevance.

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