Artificial Intelligence and Consumer Personalisation in the Nigerian Beverage Industry: Evidence from Nigerian Bottling Company Plc

By

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ABSTRACT

This study examined the effect of Artificial Intelligence (AI) enabled marketing practices on consumer personalisation in the Nigerian beverage industry, with specific reference to the Nigeria Bottling Company Plc in South-South Nigeria. Anchored on the Stimulus–Organism–Response (S–O–R) Theory, the Technology Acceptance Model, and Relationship Marketing Theory, the study conceptualised AI as an enabling marketing capability comprising machine learning, data analytics, predictive personalisation, automation, natural language processing, AI-driven content recommendation, and real-time responsiveness. A quantitative survey design was adopted, and data were collected from 400 consumers using a structured questionnaire. Multiple regression analysis at a 5% significance level revealed that all AI dimensions significantly influenced consumer personalisation. Machine learning ($R^2 = 0.505$, $t = 19.66$, $p < 0.05$), data analytics ($R^2 = 0.542$, $t = 21.15$, $p < 0.05$), predictive personalisation ($R^2 = 0.565$, $t = 22.21$, $p < 0.05$), automation ($R^2 = 0.475$, $t = 18.52$, $p < 0.05$), natural language processing ($R^2 = 0.524$, $t = 20.47$, $p < 0.05$), AI-driven content recommendation ($R^2 = 0.549$, $t = 21.63$, $p < 0.05$), and real-time responsiveness ($R^2 = 0.590$, $t = 23.29$, $p < 0.05$) all had significant positive effects. Real-time responsiveness emerged as the strongest predictor. The study concludes that AI-enabled adaptive and data-driven interactions significantly enhance perceived consumer personalisation in Nigeria's beverage sector.

Keywords: *Artificial Intelligence, Consumer personalisation, Nigerian Beverage Industry, Nigerian Bottling Company Plc.*

INTRODUCTION
Background to the Study

The contemporary marketing environment is undergoing a fundamental transformation driven by digital technologies and data-driven decision systems. Artificial intelligence (AI) has emerged as a critical enabling capability that supports automation, predictive analytics, and adaptive decision-making within marketing systems (Huang & Rust, 2021; Davenport et al., 2020). As firms increasingly operate in digitally mediated markets, marketing practice is shifting from mass communication toward consumer personalisation, where interactions are tailored to individual preferences and contextual conditions (Wedel & Kannan, 2016).

In fast-moving consumer goods markets, particularly the beverage industry, limited product differentiation and high switching behaviour intensify the need for personalised engagement strategies (Kotler & Keller, 2016). In Nigeria, increasing smartphone penetration and social media usage have expanded consumers' exposure to automated and data-driven marketing interactions. Despite these developments, empirical evidence explaining how specific AI capabilities influence consumer personalisation in emerging markets remains limited. This study therefore examines how AI-enabled marketing practices shape perceived consumer

personalisation outcomes in Nigeria's beverage industry (Uford & Akpan, 2024).

Statement of the Problem

Artificial intelligence has been widely recognised as a transformative marketing capability capable of improving relevance, timeliness, and effectiveness of brand–consumer interactions (Davenport et al., 2020). However, much of the empirical evidence supporting these claims is derived from developed economies, with limited attention to emerging markets (Asuquo et al., 2024). In Nigeria's beverage sector, consumers increasingly interact with automated and data-driven marketing systems, yet the extent to which these interactions produce meaningful personalisation outcomes remains uncertain.

Furthermore, prior research often conceptualises artificial intelligence broadly without examining the individual contributions of key dimensions such as machine learning, automation, predictive analytics, and real-time responsiveness (Puntoni et al., 2021). This lack of disaggregated evidence limits both theoretical clarity and managerial application.

The contemporary marketing environment is undergoing a fundamental transformation driven by rapid advances in digital technologies. Among these developments, artificial intelligence (AI) has emerged as a critical enabling capability that supports data processing, predictive insight generation, automation, and adaptive decision-making within marketing systems (Huang & Rust, 2021). As firms increasingly operate in data-rich and digitally mediated markets, AI has become central to emerging marketing practices that emphasize relevance, responsiveness, and individualized consumer engagement (Davenport et al., 2020; Dika et al., 2025).

In marketing and consumer behavior research, AI has accelerated the shift away from traditional mass-marketing approaches toward consumer personalisation, whereby products, communications, and experiences are tailored to individual preferences and the specific circumstances surrounding the customer at the time of interaction. This shift reflects changing consumer expectations in digital environments, where consumers increasingly demand timely, relevant, and context-aware brand interactions across multiple touchpoints (Wedel & Kannan, 2016; Pwaveno Glory et al., 2025).

The fast-moving consumer goods (FMCG) sector, particularly the global beverage industry, exemplifies these dynamics. FMCG markets are characterized by intense competition, high brand parity, and low switching costs, conditions that reduce the effectiveness of product-centric differentiation and heighten the need for stronger brand–consumer relationships (Kotler & Keller, 2016). Consequently, beverage firms are increasingly compelled to explore innovative and technology-enabled marketing approaches that facilitate deeper consumer understanding and sustained engagement.

Within Nigeria, rapid digitalisation, expanding smartphone penetration, and increased social media usage have reshaped how consumers interact with brands. These developments are particularly evident in the South-South geopolitical zone, where commercial activity, urbanisation, and digital engagement are pronounced. Consumers of Coca-Cola products in this region are increasingly exposed to digitally mediated brand communications, automated service responses, and data-driven promotional messages. Despite this exposure, empirical research examining how AI-enabled marketing practices influence consumer perceptions of personalisation within the Nigerian beverage market remains limited.

Accordingly, the study conceptualizes artificial intelligence as an emerging and enabling marketing capability, rather than assuming full-scale AI deployment by Nigeria Bottling Company Plc. The focus is on consumers' exposure to, perceptions of, and responses to AI-enabled and data-driven marketing practices—such as automation, analytics, and platform-mediated personalisation—and how these practices shape perceived consumer personalisation outcomes among Coca-Cola consumers in South-South Nigeria.

Research Objectives
The general objective of this study is to examine the effect of artificial intelligence on consumer personalisation of Nigeria Bottling Company products in South-South Nigeria. The specific objectives are to:

1. Examine the effect of machine learning on consumer personalisation of Nigeria Bottling Company products.
2. Determine the effect of data analytics on consumer personalisation of Nigeria Bottling Company products.
3. Assess the effect of predictive personalisation on consumer personalisation of Nigeria Bottling Company product.
4. Evaluate the effect of automation on consumer personalisation of Nigeria Bottling Company products.
5. Investigate the effect of natural language processing on consumer personalisation of Nigeria Bottling Company products.
6. Examine the effect of real-time responsiveness on consumer personalisation of Nigeria Bottling Company products.
7. Determine the effect of AI-driven content recommendation on consumer personalisation of Nigeria Bottling Company products.

Research Hypotheses
The following null hypotheses were formulated and tested in this study:

H01: Machine learning has no significant effect on consumer personalisation of Nigeria Bottling Company products.
H02: Data analytics has no significant effect on consumer personalisation of Nigeria Bottling Company products.
H03: Predictive personalisation has no significant effect on consumer personalisation of Nigeria Bottling Company products.
H04: Automation has no significant effect on consumer personalisation of Nigeria Bottling Company products.
H05: Natural language processing has no significant effect on consumer personalisation of Nigeria Bottling Company products.
H06: Real-time responsiveness has no significant effect on consumer personalisation of Nigeria Bottling Company products.
H07: AI-driven content recommendation has no significant effect on consumer personalisation of Nigeria Bottling Company products.

LITERATURE REVIEW
The chapter provides an in-depth review of literature relevant to the study on Artificial Intelligence (AI) and consumer personalisation in the Nigerian beverage industry, with specific reference to Nigeria Bottling Company Plc in South-South Nigeria. The chapter is structured to establish conceptual clarity, theoretical grounding, and empirical support for the

study. It critically examines key concepts, relevant theories, and prior empirical studies, while identifying gaps that justify the present research.

Artificial Intelligence in Marketing

Artificial Intelligence refers to a set of technologies that enable machines to simulate human cognitive functions such as learning, reasoning, perception, and decision-making. In contemporary marketing discourse, AI is viewed less as a standalone technology and more as an enabling organizational capability that enhances data-driven decision-making and customer engagement (Davenport, Guha, Grewal, & Bressgott, 2020). Huang and Rust (2021) conceptualise AI in marketing as systems that allow firms to sense customer needs, learn from interactions, and adapt marketing actions in real time.

Within the FMCG and beverage industry, AI supports demand forecasting, customer analytics, automated communication, and digital engagement. Importantly, in emerging markets such as Nigeria, AI adoption is often incremental and platform-mediated rather than fully autonomous. Thus, AI manifests through automation tools, analytics dashboards, recommendation engines, and responsive digital interfaces embedded within existing marketing systems.

Consumer Personalisation

Consumer personalisation refers to the process by which firms tailor marketing communications, product offerings, and interaction experiences to individual consumers based on data-driven insights. Wedel and Kannan (2016) describe personalisation as a strategic response to increasing market heterogeneity and digital interactivity. More recent studies emphasise personalisation as a consumer-perceived experience rather than merely a firm-driven tactic (Bleier, Harmeling, & Palmatier, 2019).

In AI-enabled environments, personalisation is dynamic, adaptive, and context-aware. It reflects not only historical consumer preferences but also situational factors such as time, location, channel, and interaction history. For consumers of Coca-Cola products, personalisation may be experienced through targeted digital promotions, fast and consistent automated responses, locally relevant campaigns, and timely product recommendations.

Artificial Intelligence and Consumer Personalisation

The intersection of AI and consumer personalisation lies in AI's ability to process vast consumer data, generate insights, and deliver customised interactions at scale. According to Puntoni et al. (2021), AI-driven personalisation enhances perceived relevance but may also raise concerns regarding privacy and control. Therefore, consumer perceptions play a critical role in determining whether AI-enabled personalisation is experienced as beneficial or intrusive.

The study conceptualises AI as an enabling marketing capability whose effectiveness is evaluated through consumer-perceived personalisation outcomes rather than internal technical sophistication.

Dimensions of Artificial Intelligence Relevant to Consumer Personalisation
Machine Learning

Machine learning (ML) is a foundational component of artificial intelligence that enables systems to learn from data, identify patterns, and improve performance over time without explicit programming. Davenport et al. (2020) describes machine learning as the analytical

backbone of contemporary AI-driven marketing systems, responsible for transforming large volumes of consumer data into actionable insights. In marketing applications, ML algorithms analyse purchase histories, digital footprints, and engagement behaviours to infer individual preferences and predict future consumption patterns.

In relation to consumer personalisation, machine learning facilitates a shift from broad segmentation to individual-level adaptation. Huang and Rust (2021) argue that ML-powered systems continuously refine customer understanding through iterative learning, thereby enhancing the relevance and accuracy of personalised interactions. For consumers of Nigeria Bottling Company products, machine learning-driven personalisation may be experienced through adaptive promotional offers, preference-based content delivery, and evolving engagement strategies shaped by prior interactions. When consumers perceive these interactions as consistently relevant, their sense of being individually recognised by the brand is strengthened (Bleier, Harmeling, & Palmatier, 2019).

Data Analytics

Data analytics refers to systematic collection, processing, and analysis of structured and unstructured consumer data to generate insights that support marketing decision-making. In AI-enabled marketing environments, analytics serves as the bridge between raw data and personalised consumer experiences (Wedel & Kannan, 2016). Davenport (2014) notes that firms with strong analytical capabilities are better positioned to understand consumer behaviour and design targeted marketing strategies.

From a consumer perspective, analytics-driven personalisation is experienced through targeted advertisements, regionally relevant campaigns, and promotional messages aligned with consumption contexts. In the Nigerian beverage industry, effective data analytics allows firms such as Nigeria Bottling Company Plc to account for socio-cultural diversity, purchasing power differences, and regional consumption patterns prevalent in South-South Nigeria. When analytics outputs translate into meaningful and contextually appropriate interactions, consumers are more likely to perceive marketing efforts as personalised rather than intrusive (Kumar et al., 2020).

Predictive Personalisation

Predictive personalisation represents an advanced application of artificial intelligence in marketing, involving the use of machine learning models and predictive analytics to anticipate consumers' future needs, preferences, and behaviours before they are explicitly expressed. Shmueli and Koppius (2011) define predictive analytics as the application of data-driven techniques to forecast future outcomes based on historical and real-time information. In marketing contexts, predictive personalisation enables proactive engagement and timely intervention.

Recent literature emphasises that predictive personalisation reduces consumers' cognitive effort by delivering relevant offers and messages at appropriate moments (Wedel & Kannan, 2016; Kumar et al., 2020). Huang and Rust (2021) further argue that anticipatory brand actions signal intelligence and customer understanding, thereby enhancing perceived personalisation. In the Nigerian beverage market, predictive personalisation may be experienced through seasonally timed promotions, event-based offers, and reminders aligned with inferred consumption patterns. However, studies caution that predictive personalisation must balance relevance with privacy considerations, as excessive anticipation may be perceived as intrusive (Puntoni et al., 2021).

Automation: Automation refers to the deployment of AI-enabled systems to perform marketing and customer engagement tasks with minimal human intervention. Parasuraman, Sheridan, and Wickens (2000) argue that automation enhances efficiency, consistency, and reliability in service delivery by standardising processes and reducing human-induced delays. In contemporary digital marketing environments, automation enables firms to scale customer interactions and deliver timely, data-driven communications across large and diverse consumer bases (Huang & Rust, 2021).

Empirical studies show that marketing automation technologies—such as chatbots, automated customer relationship management (CRM) systems, and scheduled digital campaigns—significantly shape consumer perceptions of responsiveness, consistency, and relevance (Davenport et al., 2020; Verhoef, Broekhuizen, Bart, et al., 2021). When automated responses are delivered promptly and align with consumers' prior interactions or expectations, consumers tend to interpret such interactions as personalised rather than mechanical (Bleier, Harmeling, & Palmatier, 2019).

Within the context of the Nigerian beverage market, consumers' experience of automation is largely mediated through digital and platform-based touchpoints rather than full-scale autonomous AI systems. For consumers of Nigeria Bottling Company products, automation is therefore experienced through fast and consistent responses to online inquiries, automated handling of complaints via social media and messaging platforms, and the timely dissemination of promotional messages through SMS, WhatsApp, and social media channels. This inference is supported by studies indicating that in FMCG markets, consumers often infer the presence of automation from observable outcomes such as response speed, message consistency, and communication regularity rather than from direct awareness of underlying technologies (Kumar et al., 2020; Wedel & Kannan, 2016).

Automation contributes to consumer personalisation when these interactions are perceived as responsive, relevant, and contextually appropriate. That is, when automated systems deliver messages or responses that reflect the consumer's needs, timing, and interaction history, they enhance perceived personalisation despite limited human involvement (Huang & Rust, 2021). However, contemporary research cautions that overly rigid or poorly designed automation may reduce perceived warmth and empathy, thereby weakening personalisation outcomes if not carefully manage (Puntoni, Reczek, Giesler, & Botti, 2021).

Natural Language Processing
Natural Language Processing (NLP) enables AI systems to understand, interpret, and generate human language, facilitating conversational interactions between consumers and digital interfaces. Jurafsky and Martin (2019) describe NLP as a critical technology underlying chatbots, voice assistants, and messaging-based customer service platforms. In marketing, NLP enhances interactive personalisation by enabling brands to engage consumers through dialogue-based communication (Huang & Rust, 2021).
Empirical studies suggest that conversational AI improves engagement and trust when responses are perceived as natural, coherent, and context-sensitive (Araujo, 2018). In culturally diverse markets such as Nigeria, the effectiveness of NLP-driven personalisation depends on linguistic appropriateness and tone. For Coca-Cola consumers, NLP-enabled interactions across social media and digital platforms shape perceptions of responsiveness and individual attention, which are central to consumer personalisation.

Real-Time Responsiveness

Real-time responsiveness refers to the ability of AI-enabled marketing systems to process consumer data and deliver immediate, context-aware responses during ongoing interactions. Rust and Huang (2014) emphasise that real-time analytics is critical for effective digital engagement. Immediate responsiveness enhances perceived usefulness, service quality, and convenience (Davis, 1989).

In AI-enabled personalisation, real-time responsiveness allows firms to dynamically adjust content, offers, and support based on consumer behaviour. For Nigeria Bottling Company consumers, this may include instant responses to enquiries, rapid complaint resolution, and adaptive promotional messaging. Such immediacy reinforces perceptions of attentiveness and customer-centricity, thereby strengthening consumer personalisation outcomes.

AI-driven real-time responsiveness is achieved through the integration of machine learning algorithms, real-time analytics, and automated decision engines that continuously update consumer profiles based on behavioural cues such as clicks, inquiries, complaints, purchase timing, and channel usage (Davenport et al., 2020). Huang and Rust (2021) argue that real-time responsiveness enhances personalisation by aligning marketing actions with the specific circumstances surrounding the customer at the moment of interaction, thereby increasing perceived relevance and usefulness.

In consumer markets, real-time responsiveness contributes to personalisation when firms are able to deliver timely promotional messages, instant service feedback, rapid complaint resolution, and adaptive digital content that reflects consumers' immediate needs. Empirical studies indicate that consumers perceive such immediacy as a signal of attentiveness and customer-centricity, which strengthens satisfaction and engagement (Bleier, Harmeling, & Palmatier, 2019; Lemon & Verhoef, 2016).

AI-Driven Content Recommendation

AI-driven content recommendation systems use algorithms to suggest relevant products, promotions, or brand-related content based on consumers' behavioural and contextual data. Ricci, Rokach, and Shapira (2015) note that recommendation systems reduce information overload while increasing relevance and engagement. Recent marketing research indicates that personalised content exposure enhances emotional connection and perceived brand relevance (Bleier et al., 2019; Kumar et al., 2020).

In the FMCG context, AI-driven content recommendation supports personalised storytelling and targeted promotional exposure. For consumers of Nigeria Bottling Company products, exposure to tailored campaigns and offers aligned with individual interests deepens personalised brand experiences and reinforces consumer–brand relationships.

AI-Enabled Consumer Personalisation and Its Implications for Customer Satisfaction and Patronage

Artificial intelligence–enabled consumer personalisation represents a critical mechanism through which modern marketing creates value for both firms and consumers. From a marketing perspective, AI-driven personalisation enhances customer satisfaction by facilitating interactions that are relevant, timely, consistent, and aligned with individual preferences as well as the specific circumstances surrounding the customer at the time of interaction. When consumers perceive that brand communications, promotional offers, and service responses are tailored to their unique needs, they are more likely to experience

heightened satisfaction, stronger trust, and increased perceived value.

Beyond satisfaction, effective consumer personalisation contributes to customer patronage, reflected in repeat purchase behaviour, sustained brand preference, customer advocacy, and long-term loyalty. Personalised experiences reduce consumers' cognitive effort, improve convenience, and foster emotional attachment to the brand. In fast-moving consumer goods (FMCG) markets—particularly within the beverage industry where functional differentiation is limited—these outcomes translate into stable consumption patterns and reduced susceptibility to brand switching. Accordingly, this study conceptualises customer satisfaction and patronage not as isolated behavioural responses but as interrelated outcome variables arising from effective AI-enabled consumer personalisation.

The relationship between consumer personalisation, satisfaction, and patronage is theoretically grounded in Relationship Marketing Theory. Pioneered by Berry (1983) and further developed by Morgan and Hunt's (1994) Commitment–Trust framework, the theory emphasises that trust, commitment, and mutual value creation are foundational to enduring customer relationships. Contemporary scholarship reinforces this position by demonstrating that AI-enabled personalisation strengthens relational bonds through enhanced relevance, responsiveness, and interaction quality (Grönroos, 1997; Kumar, Dixit, Javalgi, & Dass, 2020).

One central implication of AI-enabled personalisation is improved customer satisfaction. Personalised engagements reduce information overload, minimise search effort, and enhance perceived usefulness, thereby improving consumers' overall evaluation of the brand (Bleier, Harmeling, & Palmatier, 2019; Huang & Rust, 2021). When consumers feel understood and appropriately responded to, their assessment of the consumption experience becomes more favourable (Akemieyefa, M et al; 2025).

Equally important is the implication for customer patronage. Relationship marketing literature suggests that satisfied customers are more likely to engage in repeat purchasing, maintain brand preference, and develop loyalty over time (Morgan & Hunt, 1994; Palmatier, Dant, Grewal, & Evans, 2006). Within the Nigerian beverage industry, AI-enabled consumer personalisation may therefore encourage sustained patronage of Nigeria Bottling Company products by reinforcing trust, emotional attachment, and perceived brand relevance.

From an organisational standpoint, sustained customer satisfaction and patronage translate into improved marketing performance outcomes, including an expanded customer base, increased sales volume, enhanced return on marketing investment, and improved long-term profitability. These outcomes highlight the strategic importance of AI-enabled consumer personalisation as a relationship-building mechanism rather than merely a technological initiative.

Although customer satisfaction and patronage are not directly measured in this study, they are conceptually positioned as theoretically grounded consequences of effective AI-enabled consumer personalisation. This positioning allows the study to maintain analytical focus on consumer personalisation as the core construct while acknowledging its broader implications for relationship quality and organisational performance.

Theoretical Framework

This study integrates behavioural, technological, and relational perspectives to explain how

AI-enabled marketing practices shape consumer personalisation outcomes. AI is treated as an enabling capability; thus, the framework combines the Stimulus–Organism–Response (S–O–R) Theory, the Technology Acceptance Model (TAM), and Relationship Marketing Theory. Stimulus–Organism–Response (S–O–R) Theory was proposed by Mehrabian and Russell in 1974, the S–O–R model explains how external stimuli shape internal cognitive and affective states that drive behaviour. In this study, AI-enabled practices—automation, machine learning, natural language processing, predictive personalisation, real-time responsiveness, data analytics, and AI-driven recommendations—constitute the stimulus. These shape the organism, represented by consumers' perceived personalisation experiences, which in turn produce responses such as satisfaction and patronage.

Technology Acceptance Model (TAM) was developed by Fred Davis (1986; formalised 1989), TAM explains technology adoption through perceived usefulness and perceived ease of use. Applied here, favourable evaluations of AI-mediated interactions—when they are helpful and easy to engage with—enhance acceptance of personalised experiences, thereby strengthening satisfaction and continued patronage, particularly in contexts with varied digital literacy.

Relationship Marketing Theory (1983; 1994) was lntroduced by Leonard Berry in 1983 and advanced by Robert Morgan and Shelby Hunt in 1994 through the Commitment–Trust framework, this theory emphasises long-term customer relationships grounded in trust and commitment. AI-enabled personalisation enhances interaction relevance and consistency, fostering enduring relationships and sustained patronage for firms such as Nigeria Bottling Company Plc.

Together, these theories position AI-enabled marketing practices as stimuli, consumer personalisation as the mediating experiential state, and satisfaction and patronage as relational and behavioural outcomes. This study is anchored on established theories in marketing and consumer behaviour to explain the relationship between artificial intelligence-enabled marketing practices and consumer personalisation outcomes. Given that AI in this context is conceptualised as an enabling capability rather than full technological deployment, the theoretical framework integrates behavioural, technological, and relational perspectives. Specifically, the study draws on the Stimulus–Organism–Response (S–O–R) Theory, the Technology Acceptance Model (TAM), and Relationship Marketing Theory to provide a robust explanatory foundation for the proposed relationships.

Empirical Review of Related Studies
Puntoni, Reczek, Giesler, and Botti (2021) explored consumer responses to AI-driven marketing interactions through experimental and survey-based methods conducted in Europe and North America. Their results showed that AI-enabled personalisation increases perceived efficiency and relevance but may reduce perceived warmth if interactions are overly automated. While the study provided valuable insights into consumer psychology, it did not examine real-life FMCG consumption contexts or developing economies. Moreover, customer patronage outcomes were not explicitly tested. The present study builds on these insights by situating AI-enabled personalisation within the Nigerian beverage market and linking consumer perceptions of personalisation to theoretically grounded outcomes such as satisfaction and patronage.

Udo and Etuk (2025) investigated e-branding and customer patronage in the international market using Tantalizers Plc, Uyo as the empirical context. Their study established that digital brand visibility, website usability, and online customer experience significantly influence

diaspora purchase behaviour, referrals, and brand loyalty. The findings demonstrated that strategic digital brand positioning enhances emotional attachment and engagement among diaspora consumers interacting with culturally relevant Nigerian brands. However, the study conceptualised digital interaction primarily within a branding communication framework and did not examine the role of artificial intelligence in dynamically personalising customer experiences through predictive analytics, automation, or real-time responsiveness. The present study extends this empirical perspective by repositioning digital engagement within an AI-enabled consumer personalisation framework.

Udo, Akpan, and Uford (2024) examined the effect of product branding on customer patronage of Champion Breweries Plc in Akwa Ibom State using a survey research design and regression analysis. Their findings revealed that brand awareness and brand image significantly influence consumer purchasing behaviour within the local beverage market. However, the study focused primarily on traditional branding elements and did not examine how AI-driven systems personalise consumer experiences through automation, predictive analytics, or real-time adaptation. The present study extends their work by investigating how AI-enabled consumer personalisation mechanisms dynamically shape consumer interaction quality and behavioural responses in the Nigerian beverage industry.

Attih (2024) analysed the influence of packaging innovation on consumer patronage in local beverage enterprises using descriptive and inferential statistical techniques. The findings indicated that design appeal and information clarity significantly influence purchase intention and referrals. Despite its contribution, the study examined physical product cues rather than adaptive marketing systems capable of learning from consumer responses. The current research expands this perspective by investigating how AI-enabled personalisation systems modify promotional communication and engagement strategies in real time.

Mfon and Uford (2022) assessed branding strategies and consumer preferences in fast-food brands in Uyo through survey research and regression modelling. Their results showed that emotional branding and digital visibility significantly enhance loyalty and repeat patronage. Nevertheless, the study did not evaluate how consumer data is algorithmically processed to produce personalised marketing interactions. The present study addresses this gap by examining autqomation, predictive modelling, and real-time responsiveness as drivers of AI-enabled consumer personalisation.

Ibok and Etuk (2015) investigated brand loyalty and service quality in Nigeria's telecommunications sector using survey methodology and structural analysis. Their study identified emotional connection and perceived service reliability as major predictors of customer retention. However, the research conceptualised relevance and responsiveness as static service attributes without considering AI-enabled mechanisms that dynamically tailor interactions based on consumer behaviour. The present study builds on these relational insights by examining consumer personalisation as an outcome of intelligent system-driven interaction processes.

METHODOLOGY
The study used a quantitative survey design to examine the effect of AI-enabled personalisation on consumer outcomes in the Nigerian beverage industry. Data were collected from 400 consumers using a structured questionnaire.
Data were analysed using multiple regression analysis at a 5% significance level ($\alpha = 0.05$). Model fit was evaluated using R, R^2, Adjusted R^2, and F-statistic, while hypotheses were

tested based on regression coefficients and p-values.

DATA PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS

S/N	Predictor	Adjusted R²	Beta	t-value	F	p-value	Decision
1.	Machine learning	0.503	0.711	19.66	386.22	0.000	significant
2.	Data Analytics	0.540	0.736	21.16	446.91	0.000	Significant
3.	Predictive Personalsation	0.563	0.752	22.21	493.18	0.000	significant
4.	Automation	0.473	0.689	18.52	342.77	0.000	significant
5.	Natural Language Processing	0.522	0.724	20.47	418.63	0.000	significant
6.	AI Content Recommendation	0.547	0.741	21.63	468.90	0.000	significant
7.	Real Time Responsiveness	0.588	0.768	23.29	542.37	0.000	significant
Consumer personalisation Dependent Variable							

Source: Researcher's Field Survey 2026

Interpretation Of Hypothesis Findings

H_1: Machine Learning → Consumer Personalisation: Significant positive effect (R = 0.711, R² = 0.505, t = 19.66, p < 0.05), explaining 50.5% of variation in personalisation. Hence null hypothesis rejected.

H_2: Data Analytics → Consumer Personalisation: Significant positive influence (R = 0.736, R² = 0.542, t = 21.15, p < 0.05), accounting for 54.2% of variation. Null hypothesis is therefore rejected.

H_3: Predictive Personalisation → Consumer Personalisation: Strong significant effect (R = 0.752, R² = 0.565, t = 22.21, p < 0.05), explaining 56.5% of variation. Hence null hypothesis rejected.

H_4: Automation → Consumer Personalisation: Significant effect (R = 0.689, R² = 0.475, t = 18.52, p < 0.05), explaining 47.5% of variation. Hence null hypothesis rejected.

H_5: Natural Language Processing → Consumer Personalisation: Significant positive impact (R = 0.724, R² = 0.524, t = 20.47, p < 0.05), explaining 52.4% of variation.

H_6: AI-Driven Content Recommendation → Consumer Personalisation: Strong significant effect (R = 0.741, R² = 0.549, t = 21.63, p < 0.05), explaining 54.9% of variation. Hence null hypothesis rejected.

H_7: Real-Time Responsiveness → Consumer Personalisation: Strongest predictor (R = 0.768, R² = 0.590, t = 23.29, p < 0.05), explaining 59.0% of variation. Hence null hypothesis rejected.

Discussion of Findings

The findings confirm that AI-enabled consumer personalisation significantly influences consumer personalisation outcomes among consumers of Nigeria Bottling Company products. Automation enhances consistency and speed of engagement, validating Parasuraman et al.'s (2000) efficiency argument. Real-time responsiveness emerged as one of the strongest predictors, reinforcing the position of Huang and Rust (2021) that adaptive, context-aware interactions are central to modern personalised marketing.

Predictive personalisation and data-driven insights further demonstrate how anticipatory marketing reduces cognitive effort and increases perceived relevance.

Collectively, these results align with Relationship Marketing Theory, confirming that personalised interactions foster trust, relevance, and sustained engagement, which are essential for long-term customer relationships.

Summary of Findings

Based on the analysis and interpretation of data obtained from Nigeria Bottling Company consumers in South-South Nigeria, the study summarises its key findings as follows:

1. Artificial intelligence–enabled interactions significantly enhance consumers' perception of personalisation in Nigeria Bottling Company products.
2. Data-driven intelligence improves the relevance and contextual accuracy of brand communications delivered to consumers.
3. Predictive and learning-based AI applications enables the brand to anticipate consumer preferences, thereby strengthening perceived individual attention.
4. Automated and intelligent responsiveness enhances consumers' satisfaction through timely and personalised service delivery.
5. AI-driven content and promotional personalisation increases consumer engagement and emotional connection with the Coca-Cola brand.
6. Intelligent customer interaction platforms help overcome the impersonality typically associated with large-scale beverage operations.
7. Overall, the integration of artificial intelligence into consumer touchpoints leads to a measurable improvement in consumer personalisation outcomes.

CONCLUSIONS

Based on the empirical findings the study concludes that artificial intelligence significantly enhances consumer personalisation at Nigeria Bottling Company. AI-driven data analytics, predictive systems, and automated responsiveness improve interaction relevance, consumer satisfaction, and the perception of being understood. Personalised content and intelligent customer platforms strengthen engagement, reduce impersonality in large-scale operations, and provide a sustainable pathway for delivering tailored consumer experiences.

Recommendations

In line with the conclusions of the study, the following recommendations are made:

1. Nigeria Bottling Company should invest more strategically in AI-driven consumer analytics to enhance personalisation accuracy.
2. Predictive AI tools should be strengthened to anticipate consumer preferences and consumption patterns in real time.
3. AI-powered customer interaction systems, such as chatbots and virtual assistants, should be expanded to improve responsiveness and service quality.
4. Personalised digital content strategies should be continuously refined using AI insights to maintain relevance across diverse consumer segments.
5. Ethical data management and transparency should be prioritised to sustain consumer trust in AI-driven personalisation.
6. NBC should integrate AI personalisation across multiple consumer touchpoints for a seamless brand experience.
7. Future marketing strategies should embed AI as a core driver of consumer-centric value creation rather than as a supporting tool.

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