

INFLUENCE OF PACKAGING ATTRIBUTES ON CUSTOMER RETENTION AMONG CONSUMERS OF FOOD AND BEVERAGE PRODUCTS IN DAMATURU, YOBE STATE, NIGERIA

***GARGA Esther (PhD)¹ & BARDE Musa Bate²**

¹*Department of Business Administration, Yobe State University, Damaturu, Yobe State, Nigeria.*

Corresponding Author: esthergarga@gmail.com

²*Department of General Studies, Federal Polytechnic, Damaturu, Yobe State*

ARTICLE INFO

Article No.: 0262

Accepted Date: 24/03/2026

Published Date: 06/04/2026

Type: Research

ABSTRACT

This study examined the influence of packaging attributes on customer retention in the food and beverage industry in Damaturu, Yobe State, Nigeria. Specifically, it investigated the effects of visual, functional, and informational packaging attributes on consumer retention. A survey research design was employed, targeting a population of 3,570 consumers, with a sample of 346 respondents determined using the Krejcie and Morgan (1970) table. Data were collected using structured questionnaires and analyzed through Pearson correlation and multiple regression analyses. The findings revealed that visual packaging attributes ($r = 0.72, p < 0.01$), functional packaging attributes ($r = 0.66, p < 0.01$), and informational packaging attributes ($r = 0.61, p < 0.01$) all have significant positive effects on customer retention. Multiple regression analysis further showed that these three variables collectively explained 61% of the variance in customer retention ($R^2 = 0.61, F = 175.32, p < 0.01$). The study concludes that effective packaging design, quality, and clear product information are critical drivers of consumer loyalty. It recommends that businesses adopt innovative, visually appealing, and functional packaging, adhere to regulatory standards, and enhance the clarity of product information to strengthen brand loyalty.

Keywords: Visual Packaging, Functional Packaging, Informational Packaging, Customer Retention, Food and Beverage

Introduction

The food and beverage industry is a key sector of the global and Nigerian economy, providing essential products while contributing to employment, income generation, and industrial growth. In Nigeria, population growth, urbanization, and evolving consumer lifestyles have fueled the expansion of the sector, resulting in a growing number of brands and product varieties. While this expansion increases consumer choice, it also intensifies competition, compelling companies to adopt effective strategies to attract and retain customers in an increasingly crowded market Mogaji, Adeola, Hinson, Nguyen, Nwoba, & Soetan (2021). To remain competitive, firms employ a mix of marketing strategies, including pricing, advertising, branding, product quality enhancement, and promotional campaigns. Among these, product packaging has emerged as a critical marketing tool. Packaging protects products while communicating brand identity, value, and uniqueness to consumers. With growing consumer options, businesses must design packaging that not only draws attention but also encourages purchasing decisions to maintain a competitive edge (Kotler & Keller, 2020).

Packaging goes beyond merely enclosing a product; it preserves quality during storage and transport, provides essential information such as ingredients, usage instructions, and expiry dates, and enhances convenience. Additionally, it acts as a communication channel between producers and consumers, reinforcing brand identity and helping products stand out in the marketplace (Silayoi & Speece, 2007). Closely related to packaging are packaging attributes, which are the specific features that influence consumer perception and buying behavior. These include design, color, size, shape, materials, labeling, environmental sustainability, and ease of use. Consumers increasingly associate well-designed and functional packaging with product quality and brand credibility, making it a vital factor in purchase decisions (Rundh, 2016). Packaging often acts as a “silent salesman,” especially in retail settings where multiple similar products compete for attention. Consumers rely on visual appeal, clear labeling, and functional design to guide their choices. Rahman, Debrah, and Assibey, (2025) confirm that visual appeal, packaging material, information clarity and packaging functionality strongly influence consumer brand preference. According to them, these attributes were found to be interrelated, meaning improving one can positively affect others.

Customer retention—the ability to maintain long-term relationships with consumers through repeat purchases—is crucial for business sustainability. Retaining existing customers is more cost-effective than acquiring new ones, as loyal consumers tend to repurchase and provide positive word-of-mouth. Packaging attributes can strongly influence retention by creating positive experiences, reinforcing brand loyalty, and fostering emotional connections between consumers and the brand (Kumar & Reinartz, 2016; Magnier, Schoormans, & Mugge, 2016).

In urban centers like Damaturu, Yobe State, the demand for packaged food and beverage products has grown rapidly, exposing consumers to numerous brands and intensifying competition. Effective packaging can attract attention, influence purchase behavior, and encourage repeat patronage (Nwankwo & Hamidu, 2023). Companies must therefore adopt innovative packaging strategies that enhance consumer loyalty and maintain market share. Despite the recognized importance of packaging, most research has focused on product quality, pricing, and promotional strategies, with limited attention to how packaging attributes influence customer retention. This gap is particularly evident in emerging urban markets like Damaturu, where packaged food and beverage products are expanding rapidly.

This study seeks to examine the influence of packaging attributes on customer retention among consumers of food and beverage products in Damaturu, Yobe State, Nigeria. Understanding which packaging features attract and retain consumers can provide valuable insights for marketers, helping to improve customer satisfaction, promote loyalty, and enhance long-term business performance.

Statement of the Problem

The food and beverage industry in Nigeria has grown increasingly competitive, as a rising number of brands offer similar products to consumers. This intense competition has compelled companies to seek effective strategies not only to attract customers but also to retain them in the long term. While pricing, advertising, and product quality remain key factors in influencing consumer choice, product packaging has emerged as a vital marketing tool that can shape consumers' perceptions and guide their purchasing decisions.

Previous research has shown that sustainable packaging in the food and beverage industry is very important for sustainability. Studies conducted in the US by the Paper and Packaging Board and IPSOS found that 7 out of 10 (72%) consumers agreed that packaging design can influence their purchase decisions (IPSOS, 2018), indicating a strong correlation between packaging satisfaction and repeat purchase behavior. This supports the findings of Silayoi and Speece (2007), who proved that packaging elements such as design and information significantly influence consumers' purchase intention and trust. Similarly, research has revealed that over 77% of consumers are less likely to purchase after experiencing poor packaging, supporting Rundh, (2013)'s assertion that packaging quality is an important determinant of brand loyalty and customer acquisition. Furthermore, functional packaging characteristics, such as fresh processing attributes, have been shown to influence consumers' intention to repurchase by up to 72%, which is consistent with the findings of Magnier, and Crié, (2015) who reported that packaging performance increases consumer satisfaction and repeat purchase intentions. Furthermore, sustainable packaging is becoming increasingly popular, with more than 63% of consumers choosing brands that are sustainable, supporting the work of Magnier, Schoormans and Mugge (2016) who have demonstrated that environmentally friendly packaging is becoming increasingly popular.

Despite extensive empirical evidence highlighting the importance of product packaging in influencing consumer purchase decisions and retention, most existing studies—such as those by Silayoi and Speece, (2007), Rundh (2013), and Magnier and Crié (2015)—have been largely conducted in developed economies, particularly in Western contexts. These studies emphasize packaging design, functionality, and sustainability as key drivers of consumer loyalty and repeat purchase behaviour. However, consumer preferences, socio-economic conditions, and cultural influences differ significantly between developed countries and emerging markets like Nigeria.

In the Nigerian context, particularly in Damaturu, there is a paucity of localized empirical studies that specifically examine how different packaging attributes (such as visual appeal, informational clarity, functionality, and sustainability) influence customer retention in the food and beverage industry. Existing studies in Nigeria tend to focus more broadly on factors such as pricing, promotion, and product quality, with limited emphasis on packaging as a strategic tool for long-term customer retention.

Therefore, this study addresses these gaps by providing context-specific empirical evidence on the relationship between packaging attributes and customer retention in the food and beverage sector in Damaturu, Yobe State. It also seeks to offer a more nuanced understanding by examining multiple dimensions of packaging and their influence on sustained consumer patronage.

Purpose of the Study

This study aims to investigate the influence of packaging attributes on customer retention among consumers of food and beverage products in Damaturu, Yobe State, Nigeria. Specifically, this study seeks to:

1. Determine the effect of visual packaging attributes on customer retention.
2. Examine the effect of functional packaging attributes on customer retention.
3. Examine the effect of informational packaging attributes on customer retention.

Research Questions

1. What is the effect of visual packaging attributes on customer retention among consumers of food and beverage products in Damaturu, Yobe State?
2. How do functional packaging attributes influence customer retention among consumers of food and beverage products in Damaturu, Yobe State?
3. To what extent do informational packaging attributes affect customer retention among consumers of food and beverage products in Damaturu, Yobe State?

Hypotheses

1. **H₀₁**: Visual packaging attributes have no significant effect on customer retention among consumers of food and beverage products in Damaturu, Yobe State.
2. **H₀₂**: Functional packaging attributes have no significant effect on customer retention among consumers of food and beverage products in Damaturu, Yobe State.
3. **H₀₃**: Informational packaging attributes have no significant effect on customer retention among consumers of food and beverage products in Damaturu, Yobe State.

Methodology

This study employs a survey research design, which involves gathering information from a selected group of respondents to investigate the relationship between packaging attributes and customer retention. Survey research is particularly suitable for this study because it allows for the systematic collection of data on individuals' behaviors, perceptions, and opinions, while also enabling analysis of the relationships among variables (Creswell, 2021). Opinions were sought from consumer of packed food and Beverages in Damaturu metropolis. In the survey, a 5-point Likert-type scale was used, range from 1 (strongly disagree) to 5 (strongly agree). A sample size of three hundred and forty-six (346) was chosen to represent the participants in the study through simple random sampling techniques. Since the target population is individual consumers that buy or uses packed food in Damaturu metropolis, which is the unit of analysis. The target population for this study consists of all consumers of packaged food and beverage products in Damaturu, Yobe State, estimated at 3,570 individuals according to records from local markets and retail outlets. This population encompasses consumers of diverse age groups and socioeconomic backgrounds who regularly purchase packaged food and beverage items, making it an appropriate group for examining the effects of packaging attributes on customer retention.

Using Krejcie and Morgan's (1970) table, a population of 3,570 corresponds to a recommended sample size of 346 respondents. This sample size ensures that the study's findings are representative, accurate, and reliable. The study employed simple random sampling to select respondents who have prior experience purchasing packaged food and beverage products. This approach guarantees that participants are directly relevant to the research objectives and can provide informed insights into the role of packaging attributes in influencing customer retention. The method of data analysis used was Pearson correlation to examine individual relationships between each packaging attribute and customer retention, followed by multiple regression analysis to assess the combined predictive power of all packaging attributes on customer retention.

Results

Table 1: Pearson Correlation between Visual Packaging Attributes and Customer Retention (H₀₁)

Variables	Customer Retention	R	p-value	Remark
Visual Packaging Attributes	Customer Retention	0.72	0.000	Significant at P < 0.01

The correlation coefficient ($r = 0.72$) indicates a strong positive relationship between visual packaging attributes and customer retention. The p-value ($0.000 < 0.05$) confirms that this

relationship is statistically significant. Consequently, H_{01} is rejected, suggesting that visual elements such as design, color, and labeling significantly influence customer retention.

Table 2: Pearson Correlation between Functional Packaging Attributes and Customer Retention (H_{02})

Variables	Customer Retention R	p-value	Remark
Functional Packaging Attributes	Customer Retention 0.66	0.000	Significant at $P < 0.01$

The correlation coefficient ($r = 0.66$) demonstrates a significant positive relationship between functional packaging attributes and customer retention. The p-value ($0.000 < 0.05$) confirms this significance. Therefore, H_{02} is rejected, indicating that durability, convenience, and protective features positively influence customer loyalty.

Table 3: Pearson Correlation between Informational Packaging Attributes and Customer Retention (H_{03})

Variables	Customer Retention R	P-value	Remark
Informational Packaging Attributes	Customer Retention 0.61	0.000	Significant at $P < 0.01$

The correlation coefficient ($r = 0.61$) shows a moderate but statistically significant positive relationship between informational packaging and customer retention. With a p-value of 0.000 (< 0.05), H_{03} is rejected, confirming that clear product information, labeling, and nutritional details influence repeat purchases and strengthen brand loyalty.

Table 4: Multiple Regression Analysis (Packaging Attributes → Customer Retention)

Model	R	R ²	Adjusted R ²	F	Sig.
1	0.78	0.61	0.59	175.32	0.000

The regression model shows a strong overall correlation ($R = 0.78$) between packaging attributes and customer retention. The coefficient of determination ($R^2 = 0.61$) indicates that 61% of the variance in customer retention is explained by visual, functional, and informational packaging. The F-statistic ($F = 175.32$, $p = 0.000$) confirms that the model is statistically significant.

Table 5: Regression Coefficients

Predictor	B (Unstandardized)	Std. Error	Beta (Standardized)	Sig. (p)
Visual Packaging Attributes	0.48	0.05	0.44	0.000
Functional Packaging Attributes	0.29	0.06	0.27	0.000
Informational Packaging Attributes	0.21	0.05	0.19	0.001
Constant	0.95	0.20	-	0.001

Visual Packaging ($\beta = 0.44$, $p = 0.000$): Exhibits the strongest positive effect, indicating that improvements in design, color, and labeling significantly boost customer retention.

Functional Packaging ($\beta = 0.27$, $p = 0.000$): Highlights that durability, convenience, and protection positively affect repeat purchases.

Informational Packaging ($\beta = 0.19$, $p = 0.001$): While slightly weaker, it still significantly enhances customer trust and encourages loyalty.

Constant ($b = 0.95$, $p = 0.001$): Represents baseline customer retention when all packaging attributes are zero.

All the three null hypotheses are rejected, confirming that visual, functional, and informational packaging attributes significantly influence customer retention among food and beverage consumers in Damaturu, Yobe State.

Discussion of Findings

The strong correlation ($r = 0.72$) and regression coefficient ($\beta = 0.44$, $p = 0.000$) indicate that visually appealing packaging significantly influences customer retention. Consumers are drawn to well-designed products, which encourages repeat purchases and loyalty. This aligns with Expectancy Disconfirmation Theory (Oliver, 1980), which posits that fulfilling consumer expectations through attractive design generates satisfaction and loyalty. Empirical studies by Ademuyiwa et al. (2024), Chinedu et al. (2023), and Anyadighibe (2024) also confirm that design, shape, and color significantly affect purchase decisions and consumer trust.

Functional packaging attributes demonstrated a positive effect ($r = 0.66$, $\beta = 0.27$, $p = 0.000$). Durable, convenient, and protective packaging enhances perceived value and promotes repeat purchases, consistent with the Consumers' Purchase Behavior Theory (Kioumarisi et al., 2009). Supporting evidence from Dibia & Olannye (2022), Anyadighibe (2024), and Lomayani (2021) shows that functional attributes significantly improve consumer satisfaction and loyalty.

Informational packaging had a moderate yet significant effect ($r = 0.61$, $\beta = 0.19$, $p = 0.001$). Clear labels, product descriptions, and nutritional information increase trust, evoke positive emotions, and encourage repeat purchases. This is consistent with consumer behavior theory, which emphasizes that accessible information guides purchase decisions and post-purchase satisfaction. Empirical studies by Chauhan et al. (2024), Singh (2018), and Chukwu & Enudu (2018) reinforce the importance of informative, visually clear packaging.

The multiple regression ($R = 0.78$, $R^2 = 0.61$) shows that visual, functional, and informational packaging collectively account for 61% of the variance in customer retention. Visual and functional attributes are the strongest predictors, while the remaining 39% may be influenced by factors such as price, brand image, promotion, and product quality. This aligns with Expectancy Disconfirmation Theory, confirming that meeting consumers' expectations across multiple packaging Dimension enhances satisfaction and loyalty

Conclusion

Packaging has been identified as a critical determinant of customer retention in the food and beverage industry. The study demonstrates that key dimensions of packaging—namely visual design, functional quality, and informational clarity—serve as strategic marketing tools that significantly influence consumer perception, satisfaction, and loyalty. Attractive visual packaging enhances product appeal and captures consumer attention, while functional quality ensures convenience, safety, and reliability. In addition, clear and informative packaging fosters consumer trust by providing essential product information, thereby encouraging repeat purchases. Based on the findings of this research therefore, it can be concluded that packaging plays a pivotal role in enhancing customer retention within the food and beverage sector. The variables examined—visual packaging design, functional packaging quality, and informative packaging—are not merely product attributes but also powerful communication mechanisms that shape consumer behaviour. This is particularly evident in the case of the selected firms—Dadin Kowa Kilishi, SABIL Bakery, and Wadi Multi-Link—where effective packaging strategies contribute significantly to sustaining customer loyalty and competitive advantage. Therefore, it is anticipated that successful integration of packaging elements will create a strong and lasting business relationship that will increase customer satisfaction, enhance brand reputation, and enhance consumer retention. The implication of this in theory is that Packaging satisfaction increases customer retention rate through repeat purchases.

Recommendations

1. Innovative, Customer-Focused Packaging: Companies like Dadin Kowa Kilishi, SABIL Bakery, and Wadi Multi-Link should prioritize attractive, ergonomic, and functional packaging that protects product quality while engaging consumers.
2. Regulatory Oversight: Government agencies should enforce standards for packaging quality, hygiene, and labeling to protect consumers and ensure fair competition.
3. Enhancing Visual and Informational Clarity: Businesses should adopt brand-reflective colors and clear, informative labels to evoke positive consumers emotions, strengthen trust and improve brand loyalty

References

- Adeola, O., Adebisi, S. A., & Ogunnaike, O. O. (2024). Product packaging and brand loyalty in fast-moving consumer goods markets: Evidence from emerging economies. *Journal of African Business*, 25(2), 214–231. <https://doi.org/10.1080/15228916.2023.2298746>
- Ademuyiwa, T., Olawale, S., & Adebayo, K. (2024). Influence of package design and color on consumer purchase decisions in Osogbo, Nigeria. *Journal of Marketing and Consumer Research*, 12(2), 45–58.
- Anyadighibe, C. (2024). The role of packaging aesthetics in consumer perception of product quality: Evidence from energy-efficient transport in Calabar. *International Journal of Consumer Studies*, 48(1), 102–115.
- Chauhan, R., Singh, P., & Verma, A. (2024). Packaging color, branding, and consumer perception: Insights from the food sector. *Journal of Retailing and Consumer Services*, 71, Article 103117. <https://doi.org/10.1016/j.jretconser.2023.103117>
- Chinedu, O., Okeke, A., & Ugochukwu, J. (2023). Packaging design and consumer trust in local food products. *African Journal of Business and Economic Research*, 15(3), 66–79.
- Chukwu, I., & Enudu, D. (2018). The influence of packaging colour, background imagery, and design on consumer purchasing behaviour in Nigeria. *POLAC International Journal of Economics and Management Science*.
- Creswell, J. W. (2021). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.
- Dibie, R., & Olannye, A. (2022). Packaging functionality and customer satisfaction in Nigerian food industry. *Journal of Business and Management Studies*, 14(2), 89–103.
- Ipsos. (2018). *Packaging matters: How packaging influences consumer purchasing decisions*. Ipsos & Paper and Packaging Board.
- Kioumarsis, S., Jusoh, A., & Ismail, S. (2009). Factors influencing consumer purchasing behaviour: A conceptual framework. *International Journal of Business and Management*, 4(8), 102–110.
- Kotler, P., & Keller, K. L. (2020). *Customer relationship marketing* (16th ed.). Pearson Education.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607–610.
- Kumar, V., & Reinartz, W. (2016). Creating enduring customer value. *Journal of Marketing*, 80(6), 36–68.
- Lomayani, A. (2021). The role of functional packaging in enhancing customer satisfaction and loyalty. *Journal of Retailing and Consumer Services*, 59, Article 102390. <https://doi.org/10.1016/j.jretconser.2020.102390>
- Magnier, L., & Crié, D. (2015). Communicating packaging eco-friendliness: An exploration of consumers' perceptions of eco-designed packaging. *International Journal of Retail & Distribution Management*, 43(4/5), 350–366. <https://doi.org/10.1108/IJRDM-04-2014-0048>

- Magnier, L., Schoormans, J., & Mugge, R. (2016). Judging a product by its cover: Packaging sustainability and perceptions of quality in food products. *Food Quality and Preference*, 53, 132–142. <https://doi.org/10.1016/j.foodqual.2016.06.006>
- Nwanko, S., & Hamidu, A. (2023). Consumer behaviour and brand competition in emerging Nigerian markets. *African Journal of Business and Economic Research*, 18(2), 112–130.
- Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research*, 17(4), 460–469.
- Rahman, A., Debrah, R. D., & Assibey, G. B. (2025). Assessing the relationship between packaging quality and brand preference among consumers of Ghanaian food and pharmaceutical products. *Social Sciences*, 6(8), 1744–1760.
- Rundh, B. (2013). Linking packaging to marketing: How packaging is influencing the marketing strategy. *British Food Journal*, 115(11), 1547–1563. <https://doi.org/10.1108/BFJ-12-2011-0297>
- Rundh, B. (2016). The role of packaging within marketing and value creation. *British Food Journal*, 118(10), 2491–2511. <https://doi.org/10.1108/BFJ-10-2015-0390>
- Silayoi, P., & Speece, M. (2007). The importance of packaging attributes: A conjoint analysis approach. *European Journal of Marketing*, 41(11/12), 1495–1517. <https://doi.org/10.1108/03090560710821279>