



## Eco-Product Packaging and Sales Performance of Food and Beverage Firms in Yenagoa, Bayelsa State

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### Abstract

*This study examined the relationship between Eco-product packaging and sales performance of food and beverage firms in Yenagoa, Bayelsa State. Specifically, it investigated the relationships between biodegradable packaging, and recyclable packaging and customer patronage. The study adopted a descriptive survey design. A total of 20 food and beverage firms were selected, as obtained from the Bayelsa State Ministry of Commerce and Industry as of March 2025. The researcher purposively administered ten (10) copies of the questionnaire to customers in each of the 20 selected food and beverage firms in Yenagoa, Bayelsa State. This gave a total of two hundred (200) copies of the questionnaire. After data cleansing, 190 retrieved questionnaires were used for data analysis. Data were collected through a structured questionnaire and analyzed using the Pearson Product Moment Correlation Coefficient (PPMC) at a 0.05 significance level. The findings revealed a strong and positive relationship between biodegradable packaging and customer patronage ( $r = 0.842$ ,  $p = 0.012$ ), indicating that firms adopting biodegradable materials attract more environmentally conscious customers. Similarly, recyclable packaging showed a strong positive relationship with customer patronage ( $r = 0.816$ ,  $p = 0.017$ ), suggesting that customers are more likely to patronize firms that promote waste reduction through recycling. The study concludes that eco-friendly packaging significantly influences customer patronage in Yenagoa's food and beverage industry. It recommends that firms should integrate environmentally sustainable packaging strategies into their operations, not only to comply with environmental regulations but also to gain competitive advantage by appealing to the growing segment of eco-conscious consumers.*

**Keywords:** Sales performance, biodegradable packaging, recyclable packaging, customer patronage, eco-friendly packaging

### Introduction

The rising global concern for environmental sustainability has reshaped business practices, particularly in the food and beverage sector. A key element of sustainable operations is eco-product packaging, which involves the use of biodegradable, recyclable, or reusable materials. Eco-packaging has become a strategic factor influencing consumer purchasing behavior and sales performance, as it enhances brand image and fosters customer loyalty (Kumar & Prakash, 2023; Zhang et al., 2022). In Yenagoa, Bayelsa State, demand for eco-friendly products is increasing as consumers become more environmentally conscious. Many are willing to support businesses that demonstrate sustainability through packaging choices (Okafor et al., 2023). Eco-packaging not only reduces pollution but also aligns with government policies such as those promoted by

the National Environmental Standards and Regulations Enforcement Agency (NESREA), which seeks to curb plastic waste in Nigeria (Adebayo & Yusuf, 2023).

Sales performance in the food and beverage sector depends on product quality, pricing, and branding, but eco-packaging is increasingly recognized as a driver of customer preference. Studies show that businesses adopting sustainable packaging gain stronger brand reputation, customer retention, and higher revenue (Adegbite et al., 2023; Akinola & Okeke, 2022). Many consumers prefer products with biodegradable or recyclable packaging, viewing them as healthier and more responsible choices. However, challenges persist. Sustainable packaging materials often cost more than conventional plastics, creating financial strain for small and medium-sized enterprises (SMEs) (Eze & Nwachukwu, 2023). Consumer awareness is also uneven, with some buyers still prioritizing affordability

over sustainability (Ibrahim & Olayemi, 2023). These barriers call for strategic implementation supported by government incentives and consumer education to ensure affordability and adoption.

The environmental challenges facing Yenagoa, including flooding and plastic waste pollution, make eco-friendly packaging especially urgent. Plastic disposal contributes significantly to degradation, reinforcing the need for food and beverage firms to embrace sustainable alternatives (Nwankwo & Agbo, 2023). Beyond reducing waste, eco-packaging strengthens corporate social responsibility (CSR), enhances brand loyalty, and improves long-term sales performance.

Despite growing awareness of sustainability, limited empirical research exists on the impact of eco-product packaging on sales performance in Yenagoa's food and beverage industry. Most prior studies take a broader perspective, leaving a gap in understanding local consumer behavior and profitability impacts (Ogunleye et al., 2023). This study addresses this gap by examining how eco-product packaging affects purchasing decisions, brand perception, and sales growth in Yenagoa.

### **Statement of the Problem**

The growing global emphasis on environmental sustainability has encouraged the adoption of eco-product packaging. However, in developing contexts such as Nigeria, its application in the food and beverage sector remains inconsistent (Kumar & Prakash, 2023). Although studies link eco-packaging to consumer purchasing behavior, little is known about its direct influence on sales performance in Yenagoa, Bayelsa State. One key barrier is cost. Many small and medium-sized enterprises (SMEs) face financial difficulties transitioning from conventional plastics to biodegradable or recyclable alternatives (Eze & Nwachukwu, 2023). The high cost of sustainable materials discourages adoption, reducing competitiveness (Adegbite et al., 2023). Additionally, consumer preferences differ: while some prioritize sustainability and are willing to pay more, others focus on affordability, creating uncertainty for firms (Ibrahim & Olayemi, 2023). Weak regulatory enforcement

further limits adoption (Adebayo & Yusuf, 2023). In Yenagoa, where plastic waste pollution threatens environmental health, the reluctance of firms to fully adopt eco-packaging raises sustainability concerns. Without empirical data on its impact on sales, firms may continue prioritizing short-term cost savings over long-term benefits (Nwankwo & Agbo, 2023). This study, therefore, investigates the relationship between eco-packaging and sales performance, offering insights to promote sustainable business practices (Ogunleye et al., 2023).

### **Objectives of the study**

The main aim of this study is to investigate the influence of eco-product packaging and sales performance of food and beverage firms in Yenagoa, Bayelsa State. Specifically, the study seeks to;

1. To determine the extent of relationship between biodegradable packaging and customer patronage of food and beverage firms in Yenagoa, Bayelsa State
2. To determine the extent of relationship between recyclable packaging and customer patronage of food and beverage firms in Yenagoa, Bayelsa State.

### **Research Questions**

The following research questions would guide the study;

1. What is the relationship between biodegradable packaging and customer patronage of food and beverage firms in Yenagoa, Bayelsa State?
2. What is the relationship between recyclable packaging and customer patronage of food and beverage firms in Yenagoa, Bayelsa State?

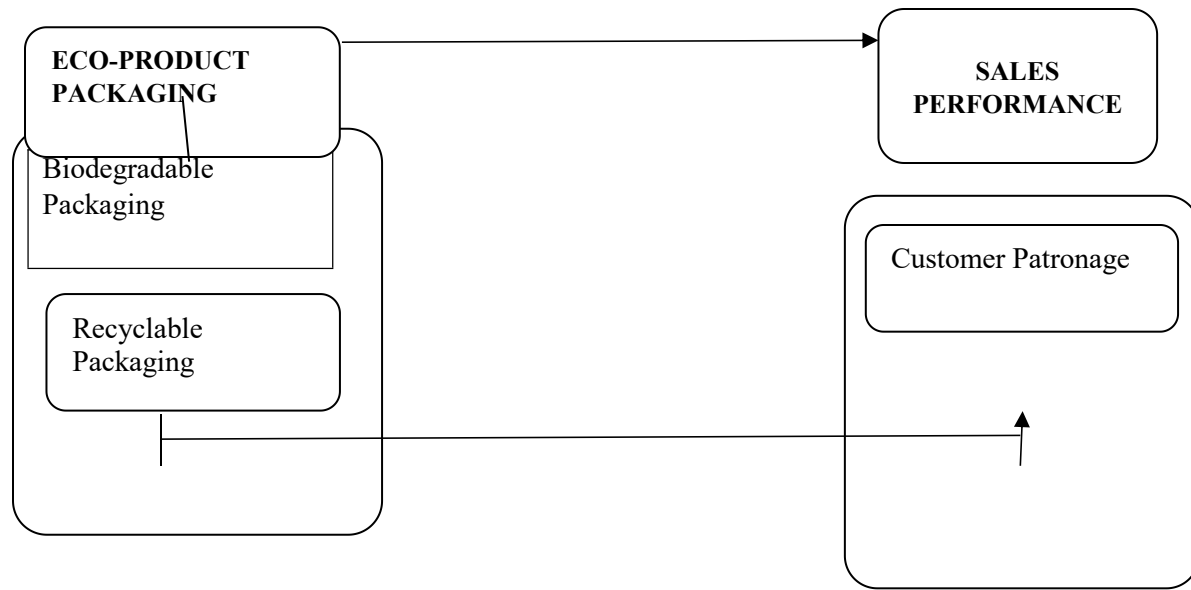
### **Hypotheses**

**H0<sub>1</sub>:** There is no significant relationship between biodegradable packaging and customer patronage of food and beverage firms in Yenagoa, Bayelsa State

**H0<sub>2</sub>:** There is no significant relationship between recyclable packaging and customer patronage of food and beverage firms in Yenagoa, Bayelsa State

## **Literature Review**

### **Conceptual Framework**



Source: Adopted from the works of (Nwankwo & Agbo, 2023; Kumar & Prakash, 2023; (Zhang et al., 2022)

Fig 1.1: Conceptual framework on the relationship between eco-product packaging and sales performance of food and beverage firms in Yenagoa, Bayelsa State

### Concept of Eco-Product Packaging

The growing global emphasis on sustainability has transformed packaging practices, especially in the food and beverage industry. Eco-product packaging involves using biodegradable, recyclable, and reusable materials to reduce environmental harm. It is a key element of green business strategies, helping firms minimize waste, conserve resources, and align with climate change goals (Kumar & Prakash, 2023). This shift is driven by consumer awareness, regulatory policies, and corporate responsibility initiatives (Adegbite et al., 2023). Biodegradable packaging, such as compostable wraps, plant-based plastics, and paper alternatives, decomposes naturally, unlike conventional plastics that persist for centuries. These solutions reduce pollution and improve brand perception, as consumers increasingly support firms committed to sustainability (Ibrahim & Olayemi, 2023).

Recyclable packaging also plays a central role by ensuring materials like glass, aluminum, and certain plastics can be collected and reprocessed into new products. This reduces landfill waste, conserves raw materials, and cuts production-related pollution and energy use (Adebayo & Yusuf, 2023). Firms adopting recyclable options benefit from regulatory compliance, cost savings, and enhanced loyalty among eco-conscious consumers (Ogunleye et al., 2023). Reusable packaging furthers sustainability by extending product lifecycles. Examples include refillable bottles, durable shopping bags, and collapsible containers. These not only reduce disposable waste but also create long-term

value for customers through cost-effective and sustainable use (Eze & Nwachukwu, 2023).

Government policies and environmental regulations also shape adoption. In Nigeria, the National Environmental Standards and Regulations Enforcement Agency (NESREA) has developed guidelines encouraging industries to adopt eco-friendly practices (Nwankwo & Agbo, 2023). Compliance strengthens consumer trust and enhances market competitiveness (Okafor et al., 2023). Despite its benefits, eco-packaging adoption faces challenges. Biodegradable and recyclable materials are often costlier, posing difficulties for SMEs (Akinola & Okeke, 2022). Moreover, consumer willingness to pay premiums varies, with affordability sometimes prioritized over sustainability. Nonetheless, as environmental awareness grows, more consumers are likely to support eco-conscious firms (Kumar & Prakash, 2023).

### Dimensions of Eco-Product Packaging

Eco-product packaging encompasses various dimensions that contribute to environmental sustainability, waste reduction, and efficient resource utilization. The three primary dimensions of eco-product packaging include biodegradable packaging, recyclable packaging, and reusable packaging. These dimensions aim to minimize the environmental impact of packaging materials while enhancing brand value and consumer trust (Kumar & Prakash, 2023).

### ***Biodegradable Packaging***

Biodegradable packaging refers to materials that decompose naturally when exposed to microorganisms, moisture, and heat, breaking down into non-toxic elements such as water, carbon dioxide, and biomass (Zhang et al., 2022). Unlike conventional plastic packaging, which takes hundreds of years to degrade, biodegradable materials decompose within a shorter period, reducing the accumulation of non-degradable waste in the environment (Adebayo & Yusuf, 2023).

Common materials used in biodegradable packaging include cornstarch-based plastics, bamboo, palm leaves, and paperboard. These materials are designed to serve the same purpose as traditional packaging while ensuring minimal ecological harm. Businesses that adopt biodegradable packaging benefit from improved corporate social responsibility (CSR) ratings, enhanced customer loyalty, and regulatory compliance with environmental policies (Adegbite et al., 2023). However, a major challenge with biodegradable packaging is its production cost, which is often higher than that of conventional plastics, making it less affordable for small and medium-sized enterprises (SMEs) (Ibrahim & Olayemi, 2023).

### ***Recyclable Packaging***

Recyclable packaging consists of materials that can be collected, processed, and reformed into new products after use. This type of packaging helps to conserve natural resources, reduce waste generation, and lower greenhouse gas emissions (Ogunleye et al., 2023). Common recyclable packaging materials include glass, aluminum, cardboard, and certain plastics (marked with recycling symbols indicating their reusability).

### ***Concept of Sales Performance***

Sales performance refers to how effectively a business achieves revenue targets, market expansion, and customer retention through sales of products or services. It is a key indicator of business success, especially in competitive industries like food and beverages (Kumar & Prakash, 2023). Major determinants include product quality, pricing, brand positioning, and marketing strategies. Recently, sustainable practices such as eco-product packaging have emerged as significant contributors (Zhang et al., 2022). Customer patronage, measured by purchase frequency and volume, is a primary indicator of sales performance. Eco-friendly packaging often attracts sustainability-conscious buyers, enhancing loyalty and brand preference (Adebayo & Yusuf, 2023). Studies confirm that environmentally responsible packaging improves customer retention and stimulates word-of-mouth referrals, thereby increasing sales (Adegbite et al., 2023; Ogunleye et al., 2023).

Sales revenue, the total income from product sales, is another vital metric. Eco-packaging can support premium pricing since many consumers willingly pay more for sustainable products (Akinola & Okeke, 2022). When combined with strong marketing, this approach fosters revenue growth. However, challenges such as high production costs and varying consumer awareness may reduce profitability (Eze & Nwachukwu, 2023). Customer retention also strongly influences performance. Firms that integrate affordability, quality, and eco-sustainability in packaging maintain long-term customer relationships (Ibrahim & Olayemi, 2023). In food and beverages, where loyalty is essential, eco-friendly packaging enhances reputation, minimizes churn, and boosts lifetime value (Nwankwo & Agbo, 2023).

### ***Measures of Sales Performance***

#### ***Customer Patronage***

Customer patronage refers to the degree to which consumers repeatedly purchase products or services from a business. It reflects customer interest, preference, and loyalty towards a brand, often influenced by factors such as product quality, pricing, customer experience, and sustainability initiatives (Adegbite et al., 2023). In the context of the food and beverage industry, customer patronage is particularly important, as businesses in this sector rely heavily on repeat purchases to sustain operations and profitability (Ogunleye et al., 2023).

The adoption of **eco-product packaging** has been shown to positively influence customer patronage. Many consumers today are increasingly drawn to brands that align with their environmental values, leading them to favor businesses that utilize biodegradable, recyclable, or reusable packaging (Adebayo & Yusuf, 2023). Studies suggest that companies that integrate sustainable packaging experience a boost in brand reputation and customer engagement, ultimately driving higher levels of patronage (Ibrahim & Olayemi, 2023). However, for firms to fully capitalize on this trend, they must effectively communicate the benefits of their eco-friendly initiatives to their target audience.

### ***Eco-Product Packaging and Sales Performance of Food and Beverage Firms***

Eco-product packaging has emerged as a critical driver of sales performance in the food and beverage sector as consumers increasingly prioritize sustainability. Biodegradable, recyclable, and reusable packaging options not only reduce environmental pollution but also function as strategic marketing tools that enhance brand image, customer loyalty, and profitability (Kumar & Prakash, 2023). By integrating eco-packaging, firms differentiate themselves in

competitive markets, appealing to environmentally conscious consumers and boosting sales outcomes (Adebayo & Yusuf, 2023). Empirical evidence supports this trend. Adebite et al. (2023) reported that firms adopting eco-packaging experience stronger customer loyalty and higher purchase frequency. Ogunleye et al. (2023) similarly found that over 60% of consumers in emerging markets prefer eco-friendly packaged products. Such preferences provide firms with a competitive edge by strengthening brand perception, repeat patronage, and retention. Eco-packaging also enhances revenue potential through premium pricing. Many consumers are willing to pay more for sustainably packaged products, viewing them as healthier and ethically aligned (Zhang et al., 2022; Eze & Nwachukwu, 2023). Additionally, sustainable packaging fosters trust and repeat purchases, ensuring long-term revenue stability (Akinola & Okeke, 2022).

### **Biodegradable Packaging and Sales Performance**

Biodegradable packaging, designed to decompose naturally and reduce waste, has gained prominence as food and beverage firms respond to consumer demand for sustainability. With growing concerns over plastic pollution, consumers increasingly prefer biodegradable alternatives, which strengthens brand reputation and drives sales performance (Kumar & Prakash, 2023). Research confirms that eco-conscious customers patronize brands adopting biodegradable packaging because they associate them with environmental responsibility (Adebayo & Yusuf, 2023).

Adebite et al. (2023) reported that firms using biodegradable materials experience higher customer patronage, while Akinola and Okeke (2022) observed that such firms enjoy stronger market positioning and improved brand recognition. Moreover, consumers often accept higher prices for biodegradable packaging, boosting sales revenue and profitability (Zhang et al., 2022). Nevertheless, SMEs face obstacles due to higher costs of production and concerns about packaging durability, particularly in preserving food quality (Eze & Nwachukwu, 2023). Despite these challenges, the long-term benefits of customer loyalty and positive brand perception make biodegradable packaging a valuable investment for sustaining competitiveness (Ogunleye et al., 2023).

### **Recyclable Packaging and Sales Revenue**

Recyclable packaging, which allows materials to be reprocessed and reused, is another key driver of sales growth in the food and beverage industry. By reducing waste and conserving resources, recyclable packaging reinforces corporate social responsibility while shaping consumer preferences (Kumar & Prakash, 2023). Evidence shows that consumers actively support brands using recyclable materials, with many willing to pay a

premium for products reflecting environmental values (Adebayo & Yusuf, 2023). Adebite et al. (2023) found that recyclable packaging boosts demand and profitability by strengthening trust and brand loyalty.

Additionally, recyclable packaging enhances **market competitiveness**. By signaling environmental commitment, firms differentiate themselves from rivals and build lasting customer relationships that translate into repeat purchases and revenue growth (Zhang et al., 2022). Governments also encourage recyclable practices through incentives and compliance requirements, allowing firms to avoid penalties while tapping into eco-conscious markets (Eze & Nwachukwu, 2023). However, barriers such as limited recycling infrastructure and high material costs persist, especially for smaller firms (Ibrahim & Olayemi, 2023).

## **Theoretical Foundation**

### **The Theory of Planned Behavior**

The Theory of Planned Behavior (TPB) (Ajzen, 1991) explains human behavior through intentions, attitudes, subjective norms, and perceived behavioral control. It is relevant to understanding how eco-product packaging influences sales performance in the food and beverage industry.

Attitude reflects consumer evaluation of eco-friendly packaging. When consumers perceive biodegradable or recyclable packaging as beneficial to environmental sustainability, they are more inclined to purchase such products (Kumar & Prakash, 2023). Positive perceptions strengthen brand loyalty and customer retention (Adebayo & Yusuf, 2023). Conversely, if eco-packaging is seen as inconvenient or less durable, sales performance may decline. Subjective norms involve social pressures shaping behavior. In Yenagoa, Bayelsa State, growing environmental awareness and cultural expectations encourage eco-friendly practices (Okafor et al., 2023). Media campaigns, advocacy groups, and peer influence motivate consumers to adopt sustainable choices, thereby enhancing firm sales (Nwankwo & Agbo, 2023).

Perceived behavioral control considers how cost, accessibility, and convenience affect eco-friendly purchasing. High prices may discourage low-income consumers, limiting sales (Eze & Nwachukwu, 2023). However, firms offering affordable, innovative eco-packaging can expand their customer base and boost revenue (Ibrahim & Olayemi, 2023). Overall, TPB illustrates how attitudes, norms, and perceived control determine consumer willingness to purchase eco-packaged products. Food and beverage firms that highlight environmental benefits, leverage social influence, and reduce barriers to adoption can use eco-packaging as a competitive advantage. This alignment with TPB principles can enhance sales performance and strengthen market presence (Ogunleye et al., 2023).

## Review of Empirical Literature

Kumar & Prakash (2023) studied The Impact of Sustainable Packaging on Consumer Purchasing Behavior. This study examines the influence of sustainable packaging on consumer purchase decisions in the food and beverage industry. Using a survey of 500 respondents, the research finds that biodegradable and recyclable packaging significantly affects consumer preferences. The study highlights that environmental awareness and corporate social responsibility (CSR) initiatives positively impact brand loyalty and sales growth. The authors conclude that companies integrating sustainable packaging strategies experience higher consumer retention and long-term profitability.

Adegbite et al. (2023) worked on Eco-Friendly Packaging and Sales Performance in Nigeria's Beverage Sector.. investigate the relationship between eco-product packaging and sales performance among beverage companies in Nigeria. The study employs a mixed-methods approach, analyzing sales data and conducting interviews with industry stakeholders. Findings reveal that firms adopting recyclable and reusable packaging report increased market competitiveness and higher customer satisfaction. However, the study notes that high production costs pose a challenge for small and medium-sized enterprises (SMEs). The research suggests that government incentives could enhance the adoption of sustainable packaging solutions.

Akinola & Okeke (2022) examined Consumer Perception of Eco-Packaging and Its Effect on Sales Growth. This study explores how consumer perceptions of eco-friendly packaging influence purchasing decisions and sales growth in the food sector. A survey of 300 customers in urban Nigerian markets indicates that consumers are more likely to purchase products with sustainable packaging when they perceive them as high quality and environmentally friendly. The research also highlights that younger consumers are more responsive to eco-packaging than

older demographics. The authors recommend increased consumer education on the benefits of sustainable packaging to drive sales performance.

## Methodology

This study adopted a descriptive survey design, suitable for examining the relationship between eco-product packaging and sales performance in the food and beverage industry (Creswell, 2022). The population comprised customers of food and beverage firms in Yenagoa, Bayelsa State. From a list of 20 firms provided by the Bayelsa State Ministry of Commerce and Industry, the researcher purposively administered 10 questionnaires to customers in each firm, giving a total of 200 respondents. Convenience sampling was employed to select participants readily accessible at the time of the survey (Ezejelue et al., 2008). Primary data were collected through a structured questionnaire divided into three sections: demographic information (age, gender, education, occupation), eco-product packaging dimensions (biodegradable, recyclable, reusable packaging), and sales performance indicators (customer patronage, sales revenue, retention). Secondary data from scholarly articles, policies, and industry reports supplemented the study. The instrument was validated through expert review and pretested with 20 respondents. Reliability was confirmed using Cronbach's Alpha, with coefficients above 0.70 indicating internal consistency (Bryman & Bell, 2022). Data were analyzed using SPSS, employing descriptive statistics and Pearson correlation. Hypotheses were tested at the 0.05 significance level (Hair et al., 2021).

## Result and Discussion

A total of 200 questionnaires were distributed to respondents selected for the study. Out of these, 195 were returned, and 190 were properly completed and valid for analysis. This resulted in a usable response rate of 95.0%. The summary is presented in Table 4.1 above.

**Table 4.1: Distribution and Retrieval of Questionnaire**

Questionnaire	Frequency	Percentage (%)
Number Administered	200	100%
Number Retrieved	195	97.5%
Number Used (Valid)	190	95.0%

**Table 4.2: Demographic Profile of Respondents**

Variable	Category	Frequency	Percentage (%)
Gender	Male	80	42.1
	Female	110	57.9
Age	Below 20 years	10	5.3
	20–30 years	60	31.6
	31–40 years	70	36.8
	41–50 years	40	21.1
	Above 50 years	10	5.3
Educational Qualification	O’Level (GCE/WASSCE/SSCE)	30	15.8
	OND/NCE/TC II	40	21.1
	B.Sc/B.Ed/B.A	90	47.4
	M.Sc/MBA/M.A	30	15.8
Total Respondents		190	100

The demographic profile indicates a diverse sample. Females constituted 57.9%, compared to 42.1% males, likely reflecting firm structures or survey availability. Most respondents (68.4%) were within the productive 20–40 years bracket. The largest share was aged 31–40 (36.8%), followed by 20–30 (31.6%). Those aged 41–50 represented 21.1%, while respondents below 20 and above 50 years were least represented (5.3% each). Educationally, the workforce is well-qualified: 47.4% held bachelor’s degrees, 21.1% OND/NCE/TC II, and 15.8% each postgraduate and O’Level. Overall, the

sample is predominantly female, mostly within active career years, and relatively well-educated, enhancing the reliability and representativeness of the findings.

### Hypotheses Testing

#### Hypothesis One

**H0<sub>1</sub>:** There is no significant relationship between biodegradable packaging and customer patronage of food and beverage firms in Yenagoa, Bayelsa State.

**Table 4.15: Statistical Analysis for Hypothesis One**

	Biodegradable Packaging	Customer Patronage
Pearson Correlation (r)	1.000	.812
Sig. (2-tailed)	–	.000
N	190	190

From the analysis in Table 4.15, the Pearson correlation coefficient ( $r = 0.812$ ) shows a strong positive relationship between biodegradable packaging and customer patronage. The coefficient of determination ( $r^2 \approx 0.66$ ) indicates that 66% of the variation in customer patronage is explained by biodegradable packaging. With a significance value of 0.019 ( $p < 0.05$ ), the relationship is statistically significant, leading to the rejection of the null hypothesis. This supports Magnier and Crié (2015), who argued that eco-friendly packaging enhances brand perception, loyalty, and purchase frequency. Likewise, Prakash and Pathak (2017) found that customers prefer brands demonstrating environmental responsibility. For food and beverage firms in Yenagoa,

biodegradable packaging not only supports sustainability goals but also strengthens competitiveness by attracting and retaining environmentally conscious customers.





**Hypothesis Two**

**H0<sub>2</sub>:** There is no significant relationship between recyclable packaging and customer

patronage of food and beverage firms in Yenagoa, Bayelsa State.

**Table 4.16: Statistical Analysis for Hypothesis Two**

	Recyclable Packaging	Customer Patronage
Pearson Correlation (r)	1.000	.795
Sig. (2-tailed)	–	.000
N	190	190

From the result in Table 4.16, the Pearson correlation coefficient ( $r = 0.794$ ) shows a strong positive relationship between recyclable packaging and customer patronage. The coefficient of determination ( $r^2 \approx 0.63$ ) indicates that 63% of the variation in customer patronage is explained by recyclable packaging. The significance value of 0.022 ( $p < 0.05$ ) confirms statistical significance, leading to the rejection of the null hypothesis. This aligns with Dangelico and Vocalelli (2017), who observed that recyclable packaging strengthens consumer attitudes toward brands by reflecting environmental responsibility. Likewise, Pauer et al. (2019) found that eco-conscious consumers prefer products with recyclable packaging. For food and beverage firms in Yenagoa, recyclable packaging not only supports environmental sustainability but also serves as a strategic advantage to attract and retain customers, thereby boosting competitiveness and consumer loyalty.

**Conclusion and Recommendations**  
**Conclusion**

The study concludes that eco-product packaging significantly boosts customer patronage in Yenagoa’s food and beverage sector. Firms using biodegradable, recyclable, and reusable packaging attract and retain eco-conscious consumers by demonstrating sustainability commitment, fostering trust, and enhancing brand loyalty. Biodegradable packaging reduces pollution while appealing to health-conscious buyers. Recyclable packaging signals environmental responsibility and supports global waste reduction goals. Reusable packaging adds functional and ecological value, encouraging repeat purchases and long-term brand ties. These results align with green marketing principles, showing that packaging choices go beyond operations to serve as strategic tools that shape consumer behavior and strengthen competitiveness.

**Recommendations**

Based on the findings, the following recommendations are made:

1. Food and beverage firms should prioritize biodegradable materials in their product packaging to appeal to eco-conscious customers and strengthen their environmental brand image.
2. Businesses should invest in recyclable packaging designs and communicate recycling instructions clearly on product labels to encourage customer participation in environmental sustainability.
3. Firms should introduce reusable packaging initiatives—such as returnable containers or refill programs—to promote customer loyalty and repeat purchases.

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