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# PRODUCT DESIGN AND MARKETING PERFORMANCE OF ROOFING AND CEILING MANUFACTURING FIRMS IN BAYESLSA STATE, NIGERIA

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## Abstract

This study focused on the relationship between product design and marketing performance of roofing and ceiling manufacturing firms in Bayelsa State, Nigeria. This study employed cross-sectional design. The population were three hundred, and forty six (346) participants, comprising owners, managers, supervisors, foremen, technical and other administrative/support staff of 11 roofing and ceiling manufacturing firms. The primary data were collected through well-structured questionnaire. Pilot study, confirmatory factor analysis and Cronbach Alpha were conducted to validate the instruments used in this study. Partial Least Squares Structural Equation Modelling (PLS-SEM) with the aid of SmartPLS software was employed to test the hypotheses. The study revealed that product design significantly relates with the measures of marketing performance. From the findings of the study, the study concluded that product design significantly relates to the measures of marketing performance. Based on the findings, the study recommended amongst others that effective product design will help the roofing and ceiling manufacturing firms in Bayelsa State to tailor their products and services to meet the needs of their customers, thus improving their customer acquisition and retention growth.

**Keywords:** Geographic Segmentation, Marketing Performance, Customer Acquisition, Customer Retention Growth.

## Introduction

The roofing and ceiling manufacturing industry plays a vital role in the economic wellbeing of the country, contributing significantly to economic development and job creation (Eze & Adewale, 2020). To sustain this impact, the adoption of effective market coverage strategies

becomes crucial, as they enable organizations to identify, target, and serve specific market segments efficiently (Arabnarmi et al., 2024). By leveraging appropriate market coverage strategies, roofing and ceiling manufacturers can expand their reach, optimize resource allocation, and meet the diverse needs of customers across different regions, ultimately enhancing their competitiveness and ensuring long-term growth within the industry (Eze & Adewale, 2020).

Marketing performance refers to the extent to which a firm achieves its marketing objectives, such as increased sales, market share, and customer satisfaction (Gnizy, 2024). It serves as a critical metric for assessing the effectiveness of strategies and guiding future decisions (Homburg et al., 2012). Understanding marketing performance helps firms identify strengths, address weaknesses, and capitalize on opportunities. Scholars categorize marketing performance into financial and non-financial indicators. Venkatraman and Ramanujam (1986) emphasize non-financial indicators like profitability and revenue growth, while Doyle and Wong (1998) highlight the significance of non-financial measures like customer acquisition as a reflection of a firm's competitive standing.

Kotler and Keller (2016) expanded on this by including product design as a means of creating unique value propositions to distinguish offerings from competitors. Product design addresses the need for unique designs and quality improvements to compete effectively in a market filled with alternatives. Product design refers to the way for the execution of product innovation, analysis of the customer demand and the influences from competitors, and the approach to fulfilling the enterprise's performance goal by the design team through the coordination of the core R&D ability in the company (Hsu, 2016). Studies from Hsu (2016) attempted to analyze the product design in enterprises from the aspects of innovation type, design feature, target market, and design appeal and he considers design characteristics the concrete practice of design strategy (Hsu, 2019). Product Design is increasingly seen as a strategic tool to develop dominant brands with lasting advantages (Srinivasan et al., 2022). Roofing and ceiling manufacturing firms in the State face significant challenges in achieving competitive performance, as evidenced by their poor customer acquisition and low customer retention. Compared to their counterparts in states such as Anambra, Lagos, Rivers, and Abia, these firms struggle to maintain visibility and customer loyalty. Manufacturers from these states, along with foreign competitors, dominate the market by offering superior product quality, wider distribution networks, and advanced marketing strategies. For example, firms in Lagos and Anambra have gained substantial customer acquisition due to their ability to adopt modern technologies and leverage economies of scale. Many roofing and ceiling manufacturers in Bayelsa lack the capacity to scale up production or expand their geographical reach, which hampers their ability to compete effectively.

Scholars have attempted to address these challenges through studies focusing on the adoption of innovative marketing practices, the role of technology in enhancing manufacturing efficiency, and strategies for improving customer engagement (Chaudhry, et al., 2023; Ali, et al., 2023). For instance, Chaudhry, et al. (2023) emphasized the importance of technological adoption in driving market competitiveness and suggested targeted interventions to improve firms' market coverage strategies. Despite these efforts, the challenges persist, as many firms fail to implement recommended strategies due to resource

constraints, lack of technical expertise, and weak institutional support (Ali, et al., 2023). This gap highlights the need for targeted research that addresses the unique challenges and opportunities in this sector. Therefore, this study aimed to bridge these gaps by investigating the relationship between product design and marketing performance within the context of roofing and ceiling manufacturing firms in Bayelsa State, Nigeria. The specific objectives are to:

- i. determine the relationship between product design and customer acquisition of roofing and ceiling manufacturing firms in Bayelsa State, Nigeria.
- ii. examine the relationship between product design and customer retention growth of roofing and ceiling manufacturing firms in Bayelsa State, Nigeria.

## **2.0 LITERATURE REVIEW**

### **2.1. Product Design**

Product” refers to the goods and services that are offered to a company’s customers. The design strategy is referred to as the way how an enterprise processes new product design under the guideline of total enterprise strategy (Crawford, 2019). In the similar viewpoint, Olson et al. (2018) consider design strategy an effective way of allocation and coordination of the design resource in order to fulfill the company goal (Olson et al., 2018). Therefore, product design refers to the way for the execution of product innovation, analysis of the customer demand and the influences from competitors, and the approach to fulfilling the enterprise’s performance goal by the design team through the coordination of the core R&D ability in the company (Hsu, 2016). Studies from Hsu (2016) attempted to analyze the product design in enterprises from the aspects of innovation type, design feature, target market, and design appeal and he considers design characteristics the concrete practice of design strategy (Hsu, 2019). Standardization product strategy refers to a uniform representation of all aspects of the product such as the quality, the materials been used, product name, and packaging for all markets, regardless of location around the world. On the contrast, product adaptation is when changes and special modifications are made in order to adjust to each market in question (Doole & Lowe, 2018, (Nampungwe & Maria, 2022).

### **2.2 Marketing Performance**

Marketing performance is a critical construct in business research and practice, reflecting the effectiveness and efficiency of marketing activities in achieving organizational objectives. It encompasses various dimensions, including financial outcomes, customer-related metrics, and market performance indicators. Marketing performance is influenced by several internal and external factors, including competitive intensity, market conditions, and organizational capabilities (Vorhies & Morgan, 2005). Organizations that align their marketing strategies with market trends and customer needs tend to achieve superior performance outcomes. Additionally, the role of digital marketing and technological advancements has become pivotal in enhancing marketing effectiveness and driving business growth. Several studies have identified key dimensions of marketing performance, broadly categorized into financial, customer, and market-based performance measures (Clark et al., 2006). Financial measures include revenue growth, profitability, and return on marketing investment (ROMI).

Customer-related measures focus on customer satisfaction, loyalty, and retention rates. Ateke and Akani (2018) describes marketing performance as the health of a firm as an outcome of marketing programmes and activities measured against stated marketing objectives or compared to the health of competing firms.

### **2.2.1 Customer Acquisition**

Customer acquisition is an important aspect of business, as no organization can survive without the customers. It has been observed that, customer attrition can set in when the companies have gotten to decline stage in firm's lifecycle. These lost customers need to be replaced (Parvatiyar & Sheth, 2021). A customer can be new in one of two senses: new to a product category or new to a company. New-to-category customers are customers who have either identified a new need or have found a new category of solution for an existing need. They might switch because they feel they have found a better solution or because they value variety (Ahmad et al., 2021). Generally, new to-company customers are the only option for growing customer numbers in mature markets where new-to-category customers are not entering the market. Many companies only begin to acquire strategically actionable customer insight after transactions start (Ross, 2019). Acquiring new customers is a relevant process that consists of several stages, in which only certain prospects can be transformed into actual customers (Parvatiyar & Sheth, 2021). Ahmad et al. (2021) "the customer acquisition process is part of the customer-firm relationship that begins with the consumers' first interaction with the firm and proceeds through the first purchase until the first repeat purchase".

### **2.2.2 Customer Retention Growth**

Customer retention starts with the first contact an organization has with a customer and continues throughout the entire lifetime of a relationship and successful retention efforts take this entire lifecycle into account. A company's ability to attract and retain new customers is related not only to its product, but also to the way it serves existing customers; the value customers actually generate as a result of utilizing the solutions, and the reputation it creates within and across its market (Menon & O'Connor, 2017). Customer retention refers to the longevity of a client's relationship with a product and/or service providing firm (Menon & O'Connor, 2017). It is believed that a firm with effective customer retention convinces their clients to stay with the firm (Bruhn & Georgi, 2016). Buttle (2014) defines customer retention as the number of customers doing business with a firm at the end of a financial year expressed as a percentage of those who were active customers at the beginning of the year. Ferrel et al. (2022) submitted that a firm's customer retention rate shows the percentage of clients who are repeat purchasers. They emphasized that this number should remain consistent or grow slowly. Customer retention could be seen as the maintenance of continuous trading relationships with customers over long-term.

## **2.3 Product Design and Marketing Performance**

Design has existed as long as human civilization, and as an activity it has a substantial amount of tradition (Heufler, 2019). It is easy to imagine the earliest humans shaping materials into utilitarian objects considering that today even primates use found objects as tools for various

tasks. As human civilization became progressively more complex, design as an activity and as a discipline has been fundamental. Dirisu et al. (2016) indicate that product design is a key factor in increasing the organization as it defines the qualities, functionality and efficiency of the service or product that customers need. Kanno and Shibata (2013) Observe that having design divisions involved from an early stage contributes to the overall product development process, and separately preparing for organizational factors in design development is insufficient to create highly advanced and innovative designs. Dumas and Mintzberg (2016) argues that, in addition to making design a part of management strategy, design functions, policies, and programs must be put in place and executed in line with that strategy in order to create unique designs that differentiate from competitors. The following null hypotheses were formulated to guide the study:

Ho<sub>1</sub>: Product design does not significantly relate with customer acquisition of roofing and ceiling manufacturing firms in Bayelsa State, Nigeria.

Ho<sub>2</sub>: Product design does not significantly relate with customer retention growth of roofing and ceiling manufacturing firms in Bayelsa State, Nigeria.

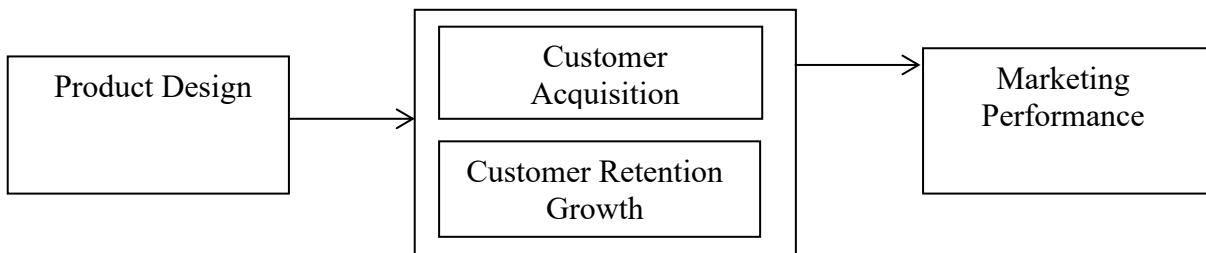


Figure 1: Conceptual Framework of the Relationship between Product Design and Marketing Performance.

Source: Adapted from Camilleri (2018); Gao (2010).

## 2.4 Theoretical Framework

The marketing capabilities theory, which examines how firms utilize their marketing resources and skills to achieve competitive advantage, was primarily propounded by David J. Day in the early 1990s. In his seminal work, Day (1994) introduced the concept of marketing capabilities as a critical determinant of a firm's performance and competitive positioning. He argued that marketing capabilities encompass a range of interrelated processes and routines that enable firms to effectively sense, respond to, and shape market opportunities. This foundational framework has since been expanded upon by various scholars who have explored the nuances of marketing capabilities in different contexts. According to Morgan et al. (2012), marketing capabilities refer to an organization's ability to effectively combine resources, skills, and knowledge to execute marketing-related activities that create value for customers and stakeholders. These capabilities include market sensing, customer relationship management, branding, and distribution channel management, all of which are crucial in driving market performance. In the context of roofing and ceiling manufacturing firms in Bayelsa State, marketing capabilities theory provides a valuable framework for understanding how firms can leverage their internal strengths to enhance market performance. By investing in market sensing, customer relationship management,

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branding, and distribution capabilities, firms can develop more effective market coverage strategies that drive growth and competitiveness.

## **2.5 Empirical Review**

Abdirahman and Wanjira (2021) determined the effect of product design on performance of commercial banks in Garissa County, Kenya. This study employed a descriptive survey research design. The population for this study was four commercial banks namely: Kenya Commercial Bank, Equity Bank, Cooperative Bank and National Bank in Garissa County, Kenya. The respondents were managers in top, middle and low level management employees. A census of 82 respondents was carried out. Primary data was collected using a structured questionnaire. Quantitative data was analyzed using descriptive statistics. The study further carried out multiple regressions to determine the effect between variables. The study found that product design had a positive and significant effect on the performance.

Kimamancha (2017) study evaluated factors that influence product design in commercial banks in Kenya. The researcher used descriptive research to understand the effect of strategy, research and resource availability on new product development. The research focused on a population of 79 product development officers in tier 1 banks where a census was conducted. A questionnaire with 31 questions was used to collect data. The study findings revealed that strategy is positively and statistically significant to new product development in commercial banks in Kenya.

Adimo (2017) investigated the relationship between differentiation strategy and performance of Sameer Africa Ltd located in Nairobi, Kenya. The study employed a correlational research design. The study targeted 112 employees of Sameer Africa (K) Limited comprising of senior management, HODs and junior staff and 90 dealers based in Nairobi. A sample of 134 respondents was selected by use of stratified and simple random sampling techniques. Primary data was collected through self-administered questionnaires. The quantitative data was analyzed using descriptive statistics in the form of tables and inferential statistics in the form of Pearson correlation and regression analysis with significance level of 0.05 to test the hypothesis. From the findings of the study, majority of the respondents believed that Sameer Africa (K) Ltd could achieve competitive advantage through channel differentiation.

Mbithi et al. (2015) study investigated the effect of product design strategy on performance in Sugar Industry in Kenya. A cross-sectional survey research design was used in carrying out the study. The target population of the research entailed nine sugar companies in Kenya. Purposive sampling method was used in selecting the respondents. Data was collected using questionnaires and analyzed using a combination of both descriptive and inferential statistics. The study established strong relationship between product design strategy and all aspects of performance. However, the study context was Sugar Industry in Kenya.

A study by Fong et al. (2014) examined new product design and performance in the banking industry. Two hundred and fifty banks' customers were selected using simple random sampling in this study. Partial Least Squares (PLS), was applied to test the hypotheses. The findings revealed that four types of new product development factors, namely, firm image, brand strength, product innovativeness and new product quality were found to be positively

related to organizational performance. However, the study used simple random sampling which is limited to accessing a sample that is representative of the whole population.

Kamakia (2014) study examined effect of product design on performance of commercial banks in Kenya. The population of the study comprised of (43) forty-three commercial banks. The study used both primary and secondary data. Primary data was collected with the aid of a self-administered semi-structured questionnaire. The study found that product design positively impacts performance of commercial banks and that the reputation in the market makes the bank stand out. However, diagnostic tests for the empirical model were not performed.

### 3.0 METHODOLOGY

Moreover, the cross-sectional survey design aligned with the study's objectives by enabling the researcher to gather diverse perspectives and insights, which enhances the reliability and validity of the findings. The population for this study consists of owners, management, and other staff of roofing and ceiling manufacturing firms in Bayelsa State of Nigeria. The study focused on organizations operating roofing and ceiling manufacturing firms with at least fifteen (15) years of operations, with not less than twenty (20) workers, and willingness to participate in the study. Eleven (11) roofing and ceiling manufacturing firms with the above criteria and willing to partake in the study serve as population for the study (Manufacturers Association of Nigeria, Man, 2025). Records from the personnel/human resource departments of the firms show that there are a total of three hundred, and forty six (346) participants, comprising owners, managers, supervisors, foremen, technical and other administrative/support staff (Human Resource Department, 2025).

**Table 1: Population of the Study**

S/N	Roofing and Ceiling Manufacturing Firms	Owners/Managers	Other Staff	Total
1	Aluminum & Allied Materials Co. Ltd.	9	30	39
2	Angobena Aluminum Co. Ltd	11	27	38
3	Best City Aluminum Nig. Ltd	8	32	40
4	Chuksyavo Co Ltd.	5	15	20
5	D.Chukwu & Sons Aluminum Ltd	5	15	20
6	East-Chase Aluminum Co. Ltd.	7	39	46
7	Egbiaye & Sons Nigeria Enterprises	3	24	27
8	High-Tech. Aluminum Co. Ltd.	5	15	20
9	Pereti Ltd	5	27	32
10	Raypere Enterprises	4	23	27
11	Sky Aluminum Ltd.	10	27	37
	<b>Total</b>	<b>72</b>	<b>274</b>	<b>346</b>

**Source:** Manufacturers Association of Nigeria, Man (2025); Human Resources Unit (2025).

For this research, the Krejcie and Morgan (1970) sample size determination table was utilized to establish the minimum required sample size. Based on a total population of 346 individuals, the table specifies a minimum sample size of one hundred and eighty six (186) respondents. The research employed a mixed-methods sampling approach. Initially, purposive sampling was used to identify and select qualified personnel. Subsequently, a

snowball sampling technique was implemented where selected participants were asked to recommend other qualified individuals for inclusion in the study. The research hypotheses was tested using Partial Least Squares Structural Equation Modelling (PLS-SEM) with the aid of SmartPLS software. The diagrammatic representation of the relationship between the variables is given in the Path Diagram.

**Table 3.2:** Result Summary for Reflective Measurement Model of Market coverage strategies

Constructs	Indicators	Convergent Validity			Internal Reliability	Consistency
		Loadings ( $\beta$ ) ( $l_k$ )	Indicator Reliability ( $l_k^2$ )	AVE		
	<b>Thresholds</b>	<b>&gt;0.70</b>	<b>&gt;0.50</b>	<b>&gt;0.50</b>	<b>&gt;0.70</b>	<b>0.70 - 0.90</b>
Product Design	PDN1	0.586	0.343	0.468	0.803	0.712
	PDN2	0.896	0.803			
	PDN3	0.636	0.404			
	PDN4	0.355	0.126			
	PDN5	0.815	0.664			

**Source: SmartPLS4.1.1.4 Output of Research Data, 2025**

Table 3.2 presents the results of the reflective measurement model assessment for product Design, however, displayed mixed results, with three indicators (PDN1 = 0.586, PDN3 = 0.636, PDN4 = 0.355) falling below the acceptable loading threshold, resulting in a lower AVE of 0.468, which is slightly below the recommended 0.50 cut-off. Nonetheless, its composite reliability (0.803) and Cronbach's alpha (0.712) still meet acceptable levels, suggesting overall construct reliability despite the weaker convergent validity.

**Table 3:** Result Summary for Reflective Measurement Model of Marketing Performance

Constructs	Indicators	Convergent Validity			Internal Reliability	Consistency
		Loadings ( $\beta$ ) ( $l_k$ )	Indicator Reliability ( $l_k^2$ )	AVE		
	<b>Thresholds</b>	<b>&gt;0.70</b>	<b>&gt;0.50</b>	<b>&gt;0.50</b>	<b>&gt;0.70</b>	<b>0.70 - 0.90</b>
Customer Acquisition	CAQ1	0.827	0.684	0.489	0.822	0.733
	CAQ2	0.672	0.452			
	CAQ3	0.439	0.192			
	CAQ4	0.767	0.588			
	CAQ5	0.725	0.526			
	CRG1	0.874	0.764			
Customer Retention Growth	CRG2	0.912	0.832	0.676	0.911	0.878
	CRG3	0.765	0.585			
	CRG4	0.920	0.846			
	CRG5	0.597	0.356			

**Source: SmartPLS4.1.1.4 Output of Research Data, 2025**

Table 2 presents the reflective measurement model results for the two marketing performance constructs—Customer Acquisition and Customer Retention Growth—evaluated using SmartPLS 4.1.1.4 output. The results are assessed against the recommended thresholds for indicator loadings (>0.70), indicator reliability (>0.50), average variance extracted (AVE >0.50), composite reliability (>0.70), and Cronbach’s alpha (0.70–0.90) to confirm convergent validity and internal consistency reliability.

For Customer Acquisition, indicator loadings ranged from 0.439 to 0.827, with three items (CAQ2 = 0.672, CAQ3 = 0.439, and CAQ5 = 0.725) falling below the 0.70 threshold, particularly CAQ3, which shows weak individual reliability (0.192). Consequently, the AVE value for the construct is 0.489, slightly below the recommended 0.50 threshold, indicating marginal convergent validity. However, the composite reliability (0.822) and Cronbach’s alpha (0.733) both meet the required benchmarks, reflecting satisfactory internal consistency despite the weaker performance of some indicators. This suggests that while the construct is reliable overall, certain indicators could be refined or replaced in future studies to strengthen validity.

For Customer Retention Growth, the measurement properties are stronger. Most indicator loadings exceed the 0.70 threshold, except CRG5 (0.597), which is slightly below but still within an acceptable range. The AVE is 0.676, well above the minimum requirement, confirming strong convergent validity. Both composite reliability (0.911) and Cronbach’s alpha (0.878) indicate excellent internal consistency, suggesting that the indicators collectively provide a robust measure of the construct.

Overall, the results indicate that Customer Retention Growth has stronger measurement properties than Customer Acquisition in this model. While both constructs meet the reliability thresholds, the slightly low AVE for Customer Acquisition and weak loading for CAQ3 highlight areas for refinement. These findings imply that the firms in this study have more consistent and measurable practices for retaining customers than for acquiring new ones, a dynamic that could influence their long-term marketing performance strategies.

### Construct Reliability and Validity

**Table 4:** Overview of Construct Reliability and Validity

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Product Design	0.723	0.800	0.829	0.556
Customer Acquisition	0.749	0.772	0.842	0.573
Customer Retention Growth	0.878	0.944	0.911	0.676

**Source: SmartPLS4.1.1.4 Output of Research Data, 2025**

Table 4 provides an overview of construct reliability and validity for all key variables in the study, assessed through Cronbach’s Alpha, composite reliability, and Average Variance Extracted (AVE). All constructs met and, in most cases, exceeded the minimum reliability threshold of 0.70, confirming strong internal consistency. The highest Cronbach’s Alpha was

recorded for *Product Design* (0.723) and *Customer Acquisition* (0.749) still surpass the acceptable threshold, ensuring measurement stability. In terms of convergent validity, all AVE values were above the 0.50 threshold, indicating that the constructs explain more than half of the variance in their respective indicators. The lowest was for *Product Design* (0.556) and *Customer Acquisition* (0.573), which are still well above the minimum acceptable level. Overall, these results confirm that the constructs in this study are both highly reliable and valid, providing a strong measurement foundation for further structural model analysis.

### Discriminant Validity

**Table 5:** Overview of Discriminant Validity – Fornell-Larcker Criterion

	Customer Acquisition	Customer Retention Growth	Distribution Channel	Geographic Segmentation	Product Design	Technology Adoption
Customer Acquisition	<b>0.757</b>					
Customer Retention Growth	0.839	<b>0.822</b>				
Product Design	0.683	0.925	0.780	0.876	<b>0.746</b>	

**Source: SmartPLS4.1.1.4 Output of Research Data, 2025**

Table 5 presents the discriminant validity assessment of the study constructs using the Fornell–Larcker criterion. Discriminant validity is established when the square root of the Average Variance Extracted (AVE) for each construct, shown on the diagonal (in bold), is greater than its correlations with other constructs in the model. The diagonal values for Customer Acquisition (0.757), Customer Retention Growth (0.822), and Product Design (0.746).

## 4.0 RESULTS AND DISCUSSION

### 4.1. Bivariate Data Analysis (Test of Hypotheses)

**Table 6: Summary Results of Hypotheses Testing**

Null Hypothesis	Path Coefficient ( $\beta$ )	Level of Significance ( $p$ )	Level of Relationship	Decision
H <sub>01</sub>	-0.172	0.145	Strong Positive	Accept null hypothesis
H <sub>02</sub>	0.747	0.000	Strong Positive	Reject null hypothesis

This study was designed to empirically investigate the relationship between product design and marketing performance of roofing and ceiling manufacturing firms in Bayelsa State, Nigeria. Hence the findings of the study are summarily stated as follows:

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**Hypothesis 2 (H0<sub>2</sub>): Product Design and Customer Acquisition:** The results show a strong positive relationship ( $\beta = -0.172$ ,  $p = 0.145$ ) between product design and customer acquisition, yet H0<sub>2</sub> was accepted due to the non-significant p-value.

**Hypothesis 5 (H0<sub>5</sub>): Product Design and Customer Retention Growth:** The study rejected H0<sub>5</sub>, revealing a strong positive relationship ( $\beta = 0.747$ ,  $p = 0.000$ ) between product design and retention.

#### 4.2 Discussion of Findings

The findings from the hypothesis testing reveal significant insights into the relationship between product design and marketing performance among roofing and ceiling manufacturing firms in Bayelsa State, Nigeria.

##### **Hypothesis 1 (H0<sub>1</sub>): Product Design and Customer Acquisition**

The results show a strong positive relationship ( $\beta = -0.172$ ,  $p = 0.145$ ) between product design and customer acquisition, yet H0<sub>1</sub> was accepted due to the non-significant p-value. This indicates that while product design may influence customer attraction, its effect is not statistically conclusive. A possible explanation is that customers in this sector prioritize affordability and availability over design sophistication. However, the negative coefficient suggests that overly complex designs may deter some buyers, reinforcing the need for balanced, market-aligned product development. Fong et al (2014) examined new product design and performance in the banking industry and the findings revealed that four types of new product development factors, namely, firm image, brand strength, product innovativeness and new product quality were found to be positively related to organizational performance. In addition, Nwokah et al. (2019) results indicator that banks improved their performance due to having a product that was used adopted by a large number of clients hence increasing their customer base.

##### **Hypothesis 2 (H0<sub>2</sub>): Product Design and Customer Retention Growth**

The study rejected H0<sub>2</sub>, revealing a strong positive relationship ( $\beta = 0.747$ ,  $p = 0.000$ ) between product design and retention. This supports Simon's (2021) assertion that design transforms user experiences, fostering long-term loyalty. Customers in Bayelsa appear to value durable, functional, and aesthetically pleasing roofing/ceiling products, which encourage repeat purchases. Firms should therefore innovate in design while maintaining cost-effectiveness to sustain competitive advantage. Abdirahman and Wanjira (2021) study found that product design had a positive and significant effect on the performance. Fong et al (2014) examined new product design and performance in the banking industry and the findings revealed that four types of new product development factors, namely, firm image, brand strength, product innovativeness and new product quality were found to be positively related to organizational performance.

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## **5.0 Conclusion and Recommendations**

The subject of market coverage strategies has become of a great value to all roofing and ceiling manufacturing firms, customers, to the staff of the organizations, the government and the parties having interest in the roofing and ceiling manufacturing sector. The study concludes that the roofing and ceiling manufacturing firms have a very effective product design implementation that has not enhanced their customer acquisition by attracting more customers, providing ease, and making products available to their customers. It also concludes that product design has a significant impact on customer retention growth. Based on the conclusion, recommendations are made as follows;

- i. We recommend that effective product design will help the roofing and ceiling manufacturing firms in Bayelsa State to tailor their products and services to meet the needs of their customers, thus improving their customer acquisition and retention growth.
- ii. From the findings of the study, it is also recommended that roofing and ceiling manufacturing firms in Bayelsa State should commit more efforts to channel management by tasking sales manager and other top management with the responsibility of managing customer relationships and put effective product design mechanism in place to enhance roofing and ceiling manufacturing firms in Bayelsa State revenue drive through customer acquisition and customer retention growth.

## **REFERENCES**

1. Abdirahman, M. R. & Wanjira, J. (2021). Effects of product design on performance of commercial banks in Garissa County, Kenya, *International Journal of Research and Innovation in Social Science (IJRISS)*, 5(8), 453-460.
2. Adimo, A. A. (2017). The impact of distribution channel differentiation on organizational performance: The case of Sameer Africa limited in Nairobi, Kenya. <https://www.semanticscholar.org/paper/THEIMPACT-OF-DISTRIBUTION-CHANNEL-DIFFERENTIATIONAdimo/17f034eab08e6b216b86cb6107c7a185c1739e92>
3. Ahmad, R., & Buttle, F. (2022). Customer retention management – a reflection of theory and practice. *Marketing Intelligence and Planning*, 20(3), 149-161.
4. Ahmadi, H., & O’Cass, A. et al., (2021). ‘The role of entrepreneurial marketing in new technology ventures first product commercialisation, *Journal of Strategic Marketing*, 24(1), 47–60.
5. Ali, O., Osmanaj, V., Kwiatek, P., Alryalat, M., Chimhundu, R., & Dwivedi, Y. K. (2023). The impact of technological innovation on marketing: Individuals, organizations and environment: a systematic review. *Economic Research-Ekonomska Istraživanja*, 36(3). <https://doi.org/10.1080/1331677X.2023.2210661>.
6. Arabnarmi, B., Kheybari, S., Amiri, A.A.K.S., & Ishizaka, A. (2024). Integration of organizational, economic and customer-related attributes to prioritize marketing strategies. *Journal of Business & Industrial Marketing*, 39(10), 2222-2238.
7. Ateke, B. W., & Akani, G. H. (2018). Brand positioning and marketing wellness of deposit money banks. *International Journal of Innovations in Social Science, Arts and Management*, 8(1), 140-151.

8. Bruhn, M., & Georgi, D. (2016). *Services marketing: Managing the service value chain*. Pearson Education.
9. Buttle, F. (2014). *Customer relationship management: Concepts and tools*. Butterworth – Heinemann.
10. Camilleri, M. A. (2018). Market segmentation, targeting and positioning. In *travel marketing, tourism economics and the airline product* (Chapter 4, pp. 69-83). Springer, Cham, Switzerland.
11. Chaudhry, K., Chaudhry, M., & Chaudhry, A. (2023). Competitiveness through technology and innovation. DOI: 10.13140/RG.2.2.18707.86568.
12. Clark, B. H., Abela, A. V., & Ambler, T. (2006). An information processing model of marketing performance measurement. *Journal of Marketing Theory and Practice*, 14(3), 191-208.
13. Crawford, C. M. (2019). *New products management*, 2<sup>nd</sup> edition, McGraw-Hill Press,
14. Day, G. S. (1994). The capabilities of market-driven organizations. *Journal of Marketing*, 58(4), 37-52.
15. Day, G. S. (2020). *Market-Driven Strategy: Processes for Creating Value*. Wiley.
16. Dirisu, J. I., Iyiola, O., & Ibidunni, O. S. (2016). Product differentiation: A tool of competitive advantage and optimal organizational performance (A study of Unilever Nigeria PLC). *European Scientific Journal*, 9(34), 47 – 55
17. Doole, I. & Lowe, R. (2018). *International marketing strategy: analysis, development and implementation*, 5<sup>th</sup> ed. Thomson Learning.
18. Doyle, P., & Stern, J. (2020). *Marketing management and strategies*. Pearson Education Limited.
19. Doyle, P., & Wong, V. (1998). Marketing and competitive performance: An empirical study. *European Journal of Marketing*, 32(5/6), 514-535.
20. Dumas, A., & Mintzberg, H. (1989). Managing design, designing management. *Design Management Journal*, 1(2), 37 - 44.
21. Eze, E. O., & Adewale, M. A. (2020). Manufacturing contributions to economic growth: Evidence from Nigeria's building materials sector. *African Journal of Economics and Development*, 12(4), 45–56.
22. Fong, S. F., Lo, M. C., & Ramayah, T. (2017). New product development and performance in the banking industry. *Asia-Pacific Journal of Management Research and Innovation*, 10(4), 305-321
23. Gao, Y. (2010). Measuring marketing performance: A review and a framework. *The Marketing Review*, 10(1), 25-40. doi: 10.1362/146934710X488924.
24. Gnizy, I. (2024). When and how digital novel technologies matter to firm marketing performance. *Journal of Marketing Analytics*, 23, 1-18.
25. Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115-135.
26. Homburg, C., Artz, M., & Wieseke, J. (2012). Marketing performance measurement systems: Does comprehensiveness really improve performance? *Journal of Marketing*, 76(3), 56-77.

27. Homburg, C., Vomberg, A., Enke, M., & Grimm, P. (2015). The impact of organizational structure on sales growth. *Journal of Marketing*, 79(5), 53-72.
28. Hsu, Y. (2016). Comparative study of product design strategy and related design issues, *Journal of Engineering Design*, 17(4), 357-370.
29. Hsu, Y. (2019). Exploring design innovation and performance: the roles of issue related to design strategy, *Journal of Engineering Design*, 20(6), 555-569.
30. Kamakia, P. (2014). Effect of product innovation on performance of commercial banks in Kenya (Doctoral dissertation, University of Nairobi).
31. Kanno, Y., & Shibata, S. (2013). Organizational factors in the product design development process. *International Journal of Business and Management*, 8(10), 15-26
32. Kimamancha, K. K. (2017). Factors That Influence Product Design in Commercial Banks in Kenya (Doctoral dissertation, United States International University-Africa)
33. Kotler P., & Keller K.L. (2016). *Marketing management (15th Edition)*. Pearson.
34. Mbithi, B., Muturi, W., & Rambo, C. (2015). Effect of product design strategy on performance in Sugar Industry in Kenya. *International Journal of Academic Research in Business and Social Sciences*, 5(12), 311 – 325
35. Menon, K., & O'Connor, A. (2017). Binding customers affective commitment towards retail banks: The role of CRM in each moment of truth. *Journal of Financial Services Marketing*, 12(2), 157 – 168.
36. Morgan, N. A., Clark, B. H., & Gooner, R. (2002). Marketing productivity, marketing audits, and systems for marketing performance assessment: Integrating multiple perspectives. *Journal of Business Research*, 55(5), 363-375.
37. Morgan, N. A., Katsikeas, C. S., & Vorhies, D. W. (2012). Export marketing strategy implementation, export marketing capabilities, and export venture performance. *Journal of the Academy of Marketing Science*, 40(2), 271-289.
38. Morgan, N.A., Vorhies, D.W., & Mason, C.H. (2009). Market orientation, marketing capabilities, and firm performance. *Strategic Management Journal*, 30(8), 909-920.
39. Nampungwe, M. B. & Maria, L. D. (2022). Product standardization and adaptation in International Marketing: A case of McDonalds. Master's Thesis in Business Administration 15 ECTS Department of Economics and IT University West
40. Nwokah, N. G., Ugoji, E. I., & Ofoegbu, J. N. (2019). Product development and organizational performance. *African Journal of Marketing Management*, 1(3), 089-101.
41. Olson, E. M., Cooper, R. & Slater, S. F. (2018). Design strategy and competitive advantage, *Business Horizons*, 41(2), 55-61.
42. Parvatiyar, A., & Sheth, J. (2021). Customer relationship management: Emerging practice, process and discipline. *Journal of Economic and Social Research*, 2(1), 1-34.
43. Simon, H. A. (2021). *The science of the artificial*. The MIT Press
44. Srinivasan, R., Lilien, G. L. & Rangaswamy, A. (2022). The emergence of dominant designs. *Journal of Marketing*, 7(3), 1-17.
45. Venkatraman, N., & Ramanujam, V. (1986). Measurement of business performance in strategy research: A comparison of approaches. *Academy of Management Review*, 11(4), 801-814.
46. Vorhies, D. W., & Morgan, N. A. (2005). Benchmarking marketing capabilities for sustainable competitive advantage. *Journal of Marketing*, 69(1), 80-94.