

RECYCLE LOGISTICS PRACTICES AND MARKETING PERFORMANCE OF REGISTERED BREWERIES IN NIGERIA

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ABSTRACT

As environmental concerns remain a global priority, population growth, stricter regulations, and shifting consumption patterns in Nigeria lead to increased waste production, placing greater demands on recycle logistics systems to manage larger volumes of waste materials. This study examined the relationship between recycle logistics practices and marketing performance of registered breweries in Nigeria. The objective was to determine the extent to which recycle logistics practices relate with marketing performance of registered Breweries in Nigeria. The study adopted cross-sectional research design. The population of the study was six (6) registered Breweries in Nigeria. The researchers adopted a census method because of the small size of the study population. The researchers adopted a census method because of the small size of the study population. However, ten (10) managers were drawn from each of the six (6) of registered Breweries in the six geopolitical zones; (Plateau) North-central, (Kaduna) North-west, (Adamawa) North-east, (Abia) South-west and (Rivers) South-south. In all, sixty (60) managers constituted the respondents for the study. Data were collected through semi- structured questionnaire designed in the Likert 5-point scale of very low extent to very high extent. Data were analyzed using Pearson Product Moment Correlation (PPMC) to test the six hypotheses. The findings reveal that the relationship between recycle logistics practices and marketing performance is strong and significant. Thus, the study concludes that implementing efficient recycle logistics practices in registered breweries in Nigeria results in exceptional marketing performance. The study recommends that Beverage firms in Nigeria should adopt tracking systems to oversee bottle collection and returns. Additionally, it recommends training employees on the significance of recycling and how to effectively convey this message to customers.

INTRODUCTION

The global shift toward green supply chain management represents a significant challenge for registered breweries in South-South Nigeria, but also present opportunities for innovation and competitive advantage (Olajire, 2020). As environmental concerns like consequences of climate change, global warming, solid waste mismanagement, air and water pollution, and rapid technological advancements have increased the attention and focus on recycle logistics practices. Environmental concerns presently have led manufacturing firms globally to redesign their business processes in order to have environmentally friendly products and logistics systems (Govindan, Soleimani & Kannana, 2015; Prakash, Barua & Pandya, 2015; Banihashemi, 2019). As a result, logistics service providers, manufacturers and consumers alike are required to dismantle used products and by-products into component parts for recycling, or safe disposal (Sheth, Sethia & Srinivas, 2011). Adopting green practices such as recycling helps in "greening" the environment leading to topnotch marketing performance (Sorkun & Onay, 2018). Recycle logistics practices cover strategic and operational activities involved in the collection, transportation, sorting, and processing of reusable materials, to make the most of resource recovery, reduce environmental impact, and optimize the economic efficiency of reutilization operations (Pokharel & Mutha, 2009). This involves the moving of "end of useful life" goods from consumers to manufacturers, so as to offer and capture more value or ensure environmentally friendly disposal (Vahabzadeh, Asiaei & Zailanim, 2015). When viable recycle logistics practices are integrated effectively into marketing strategies, they can

significantly improve marketing performance by aligning with consumer preferences for eco-friendly products and processes. Taouab & Isor, (2019) observed that marketing performance is determined by the potential and ability of an organization to efficiently utilize available resources to achieve targets in line with its set plans bearing in mind their relevance to the users.

Kerby & Vriesekoop, (2017) report that by-products generated by British craft breweries are recycled into compost and packaging materials providing extra opportunities to the brewing industry in terms of sustainability and high marketing performance. In most developed economies, breweries prioritize waste reduction and recycling by converting by-products and residuals in the form of spent grains, spent hop and spent yeast as animal feed supplement in diets for ruminants, horses, poultry, swine, and fishes (Mussatto, 2014). Yeast extracts are also used in food production to add flavor. It is a source of minerals, B-complex vitamins, and vital amino acids. Traditionally, breweries in South-South Nigeria have focused more on improving their forward logistics activities; most have not treated the recycling logistics process with the same care and diligence afforded to traditional areas of logistics. Recycle logistics often takes a backseat due to a myriad of socio-economic issues such as poverty, inadequate implementation of waste management regulations and limited awareness among managers of the breweries about the importance of recycling (Babayemi, Ogundiran & Osibanjo, 2017). Therefore, the country encounters a significant deficit in recycling infrastructure with very few or no collection systems and processing facilities. For instance, plastic wastes, including bottles and cans, have increasingly become a huge portion of waste, posing environmental and health risks in the region. It is up to recycling logistics practices to separate the “wheat from the chafe”, and process them for reuse to reduce costs and mitigate loss (Business Daily, 2015).

By means of recycle logistics practices, registered breweries in South-South Nigeria stand the chance of optimizing their marketing performance by recovering either component materials/parts that may no longer need to be purchased in the same quantities, or added-value (Sorkun & Onay, 2018). Through the design and implementation of efficient collection systems, the deployment of advanced sorting technologies, automation, and manual labor to separate different types of materials efficiently, investing in advanced recycling and launch awareness campaigns to educate consumers and local communities about the importance of recycling (Agu, Akpan & Ebong, 2018; Chen, Zhang & Xie, 2018; Uchegbu, Okere, Nwankwoala, & Nwosu, 2020). Mwaura, *et al.*, (2015) on the basis of their findings identified recycle logistics as key to efficient and effective resources management in organizations. However, despite the many research in the area of recycle logistics practices and marketing performance, none has been conducted to assess the relationship between recycle logistics practices and marketing performance of Nigerian breweries (to the best of our knowledge). Most of the existing studies were conducted in foreign countries. For instance, Turrisi (2012) looked at the impact of recycle logistics on supply chain performance in Italy, Kamanga & Osoro, (2022) examined the influence of reverse logistics recycling practice on the performance of large manufacturing firms in Kenya, Oliveira Neto & Correia, (2019) studied environmental and economic advantages of adopting reverse logistics for recycling construction and demolition waste in Brazil while Khor and Udin (2012) conducted a study on the impact of recycle logistics product on business performance in Malaysian E & E Companies. There is therefore no clear evidence as to whether Nigeria breweries can achieve improved marketing performance by employing recycle logistics practices. It is evident that there exists some knowledge gap that needs to be filled through research. This study sought to fill this gap by determining the empirical relationship between recycle logistics practices and marketing performance of registered breweries in Nigeria. Illustrated below is the conceptual framework showing the variables underpinning the study.

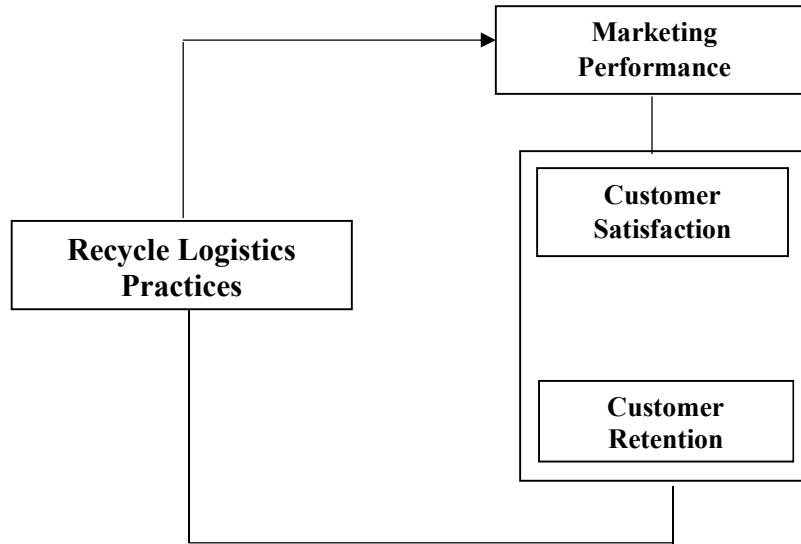


Figure 1: Conceptual Framework of the Relationship Between Recycle Logistics Practices and Marketing Performance of Registered Breweries in Nigeria
Source: Researchers' Conceptualization (2024)

LITERATURE REVIEW

Related literature on the study variables is provided to give a comprehensive understanding of the concepts in the conceptual framework presented in Figure 1.

THEORETICAL REVIEW

A theory is a set of philosophies developed, tested and widely accepted to expound a phenomenon (Popper, 1963). This study is premised on the resource-based view theory as its theoretical foundation.

RESOURCE BASED VIEW (RBV)

The Resource-Based View (RBV) of the firm has become a foundational theory in strategic and supply chain management, providing valuable perspectives into how firms can achieve and maintain competitive advantage. The origin of (RBV) can be found its roots in the early works of (Penrose 1959; Selznick 1957), they stressed the importance of internal resources and capabilities in defining the firm's strategic positioning. Nevertheless, it gained prominence in academic literature in the late 1980s and early 1990s (Barney1991; Wernerfelt 1984). The resource-based view theory implies that firm growth and development specifically depends on the available resources within the firm. According to the theory, for a firm to achieve a competitive advantage in the market environment it needs to have adequate resources in order to build the capacity to engage in market activities (Zehir, Üzmez & Yıldız 2016). The (RBV) theory indicates that firms' superiority, comparativeness, and advantage in the market environment is determined by the available resources of the company. The theory specifically determines firms' ability and capacity to utilize company resources to achieve desirable results. The theory attests that company resources are heterogeneous and that the strength of a company is its resource competitiveness. Before a firm can dominate in the market area, managers ought to ensure that resources within the industry are adequate so that the firm can adequately utilize resources to achieve intended goals and objectives (Miller, Wright, Breton-Miller & Scholes, 2015). The (RBV) theory describes the significance of firms' resources in the business field as in how firms' internal resources can be utilized to increase operational performance (Chrisman & Holt, 2016). However, organizations' resources must be "unique, valuable, rare, and

non-substitutable resources and capabilities” such that firms are able to utilize them efficiently to achieve growth and development (Barney, 1991; Costa, Cool & Dierickx 2013). The resource-based view theory has been deployed in many studies to explain the conditions associated with different industries (Hatak, Kautonen, Fink& Kansikas, 2016). Firms that excel in implementing recycle logistics practices can create valuable and rare resources that are difficult for competitors to imitate or substitute. Wu, Choi, and Rungtusanatham (2018) found that firms with higher environmental management practices, including recycling efforts, tend to achieve better marketing performance.

CONCEPTUAL REVIEW

RECYCLE LOGISTICS PRACTICES

Recycling is defined as the process to change waste, used or returned products into new products to prevent waste of potentially useful materials, reduce the consumption of fresh raw materials, reduce energy usage air pollution (Baker, 2018). Recycling is referred to as the removal of materials from a disposed product or package so that they can be utilized as raw materials for a new product or package, (Salim, 2016). Wong, (2010) as cited in Salim (2016) suggests that recycling is the breaking down of a used product into its component parts and reprocessing it into new or original forms. Some examples of recyclable materials are plastic items, paper, glass, batteries, bulbs and metal materials. Recycling as well as reusing recycled materials reduces the amount of waste sent to landfills, conserves natural resources, reduces green gas emission and helps create job opportunities (Ellram, 2016). Guide and Van Wassenhove, (2003) observe that recycle logistics is an aspect of reverse logistics that concentrates on the management of recyclable materials to increase their viability, reuse and reintegration into the supply chain. This is in line with a study by Banar and Çokaygil (2009), in which recycling was found to have many strategic benefits including; reducing the consumption of fresh raw materials, reducing energy usage, and reducing air pollution. Pumpinyo and Nitivattano (2013) commented that there had been continuous promotion of recycle logistics practices to ensure sustainable growth by reducing the consumption of natural resources and lessening environmental burdens. Contrary to this, Duzgun *et al.* (2019) argued out that comparing recycling with other reverse logistics options like reuse, remanufacturing among others, recycling requires more effort. It consumes and requires more resources and energy therefore, when selecting a reverse logistics option, industry practitioners should focus on options that require less effort, such as reusing, repairing, instead of traditional recycling. More still, Meyer *et al.* (2014) emphasized that in order to preserve the natural environment, it is important to implement recycling practices. Recycling is one of the tools used for plastic waste reduction, however, despite the efforts put forward to reduce plastic waste and prevent waste from polluting the environment, Matter *et al.* (2012) contended that reverse logistics chains are not organized and rely on recyclables collected from waste delivered by trucks and temporary garbage dumpsites. In consequence, waste that would have qualified for recycling ends up in dumpsites or never recovered. In Uganda, this is evidenced by the dumped plastic waste in drainage channels and manholes (Asiimire, 2015).

In same vein, Nyerega, (2015) indicated that, common recycling practices is the return of used products and packaging to suppliers for recycling, however, creation of awareness to the public about recyclable products, documentation of recycling policy and a structured market incentive are less adhered to. Organizations may create awareness by putting the recycling labels of three arrows intertwining clockwise as a sign that the product or package should be recycled (Laosirihongthong, *et al.* 2013). For Carter and Ellram, (1998), the concept of recycle logistics practices describes logistical processes that support the reprocessing of materials, guaranteeing that waste is effectively collected, sorted, and processed to extract valuable resources. Rogers and Tibben-Lembke, (1998) indicate that recycle logistics practices is a multidimensional concept that involves the collection, transportation, and processing of materials that have been discarded by consumers or businesses to be reused into new products. Agreeing with Rogers and Tibben-Lembke, Srivastava, (2007) opine that recycle logistics practices involves the methodical management of recyclable waste materials through collection, sorting, cleaning, and transforming these materials into usable raw inventory for

new production cycles. The process of recycling begins from bin collection where bins containing recyclable materials are taken. The bins are then transported to the firm where the materials are sorted, cleaned and then processed. The sorting process depends on the materials to be recycled. For example, steel cans are sorted using a magnet separation process, (Mwaura, Letting, Gichuru & Bula, 2015). In the context of this paper, the concept of recycling logistics practices is operationalized into three dimensions namely: waste collection, waste transportation, and waste processing. Therefore, we are inclined to define recycle logistics practices as the process of planning, controlling, sorting, cleaning, processing and storage of waste effectively and efficiently for reuse to minimize environmental impact.

MARKETING PERFORMANCE

Kotler and Armstrong (2010) define marketing as the process by which companies create value for customers and build strong relations in order to capture value from customers in return. In the view of AMA (2013), marketing is the activity, set of institutions and processes for creating communicating, delivering and exchanging offering that have value for customers, clients, partners and the society at large. According to Didier (2002) cited by Hashem (2015) performance is achieving set goals. In his opinion, performance is not a mere finding of an outcome, but rather it is the result of a comparison between the outcome and objective. Performance can also be explained as the capacity of a firm to satisfy the intent of the stakeholders (Aminu & Shariff, 2015). Kumar and Shah (2023) suggest that marketing performance is the measurement of the effectiveness of marketing activities in achieving specific organizational goals and objectives. Kumar and Shah (2021) propose that marketing performance is the degree to which a marketing approach realizes its intended goals and objectives, in tandem with the overall strategic direction of the organization. Marketing performance encompasses a united set of metrics that includes financial results, customer engagement, market share, and operational efficiency (Schlegelmilch & Robertson 2023). Marketing performance is the potential and ability of a business to efficiently utilize the available resources to achieve targets in line with the set plans of the company bearing in mind their relevance to the users (Taouab & Isor, 2019). Marketing performance refers to the appraisal of marketing endeavors in terms of return on investment (ROI), for example, evaluating the financial returns generated from marketing activities relative to their costs (Winer, 2022). Ambler (2023) opined that marketing performance is the assessment of how well marketing strategies and campaigns meet the goals of a business. Kotler and Keller (2022) indicate that marketing performance is the degree to which marketing strategies and campaigns achieve predetermined objectives. Marketing performance covers the indicators used to assess the efficacy of marketing initiatives. Therefore, marketing performance involves assessing the accomplishment of marketing strategies through several performance metrics.

MEASURES OF MARKETING PERFORMANCE

Measuring marketing performance has been a cardinal issue in marketing and stays as vigorous concern for enormous majority of companies. Business practitioners and academics have both been attracted to the topic. A wide range of measurement has been adopted to operationalize marketing performance. For example, Narver and Slatter (1994), identified key indicators as return-on-investment, market share and sales growth, Nwokah (2008), used sales growth, profitability, and market share, and Didia & Nwokah (2015), employed sales growth, customer retention, return on investment, market share, getting valuable information, ability to secure local resource and motivating employees as proxies of business performance. Lemon and Zeithaml (2020) assessed marketing performance using financial measures that show the return on marketing investments, including revenue growth, profitability, and cost efficiency. Taouab and Isor, (2019) developed a model to measure marketing performance consisted of the following metrics: customer retention, customer acquisition, market share, customer satisfaction, and customer loyalty. Homburg, Jozić and Kuehnl (2022) measured marketing performance based on customer-centric consequences such

as customer satisfaction, retention, loyalty, and perceived value. This paper adopted customer retention and customer satisfaction as non-financial measure from extant literature as the measure of marketing performance.

CUSTOMER SATISFACTION

In the context of this paper, a customer is a person or entity that buys products or services from a company. Satisfaction on the one hand is the consumer's fulfilment response. It is a judgment that a product or service provided or is providing a pleasurable level. Regardless of the type of business, industry, or products and services being sold, customers remain the most vital element of any organization (Nwinkinaka & Poi 2023). Customer satisfaction is feeling or attitude toward a product or service after its use. Customer satisfaction has drawn the attention of practitioners from several years based on the fact that customers are the primary source of profit for most of the firms operating in the market (Tam, 2014). According to Churchill and Surprenant (2012) customer satisfaction is an outcome of purchase and use resulting from the buyers' comparison of the rewards and costs of the purchase in relation to the anticipated consequences. It is also defined in terms of an emotional state that usually arises in response of evaluating a particular service (Westbrook, 2017). In agreement with Westbrook, Edquist, (2017) defined customer satisfaction as a feeling that surfaces from an evaluation process, i.e. when the consumer of a good or service compares what is received with what is expected from the utilization of that good or service. Citing Swan, Trawick and Carol (1982), Poi & Nwokah (2022) indicate that customer satisfaction occurs through an assessment and cognitive judgement by consumers ascertaining whether the product or service portrays a fulfilling or poor result. In a competitive marketplace where businesses compete for customers, customer satisfaction is seen as a key differentiator and increasingly has become a key element of business strategy. Measuring customer satisfaction provides an indication of how successful the organization is at providing products and/or services to the marketplace (Ruan & Mezei 2022). Customer satisfaction is influenced by a variety of factors, including resource constraints, management perceptions of consumer expectations and the firm's service quality specifications. Customer satisfaction is affected by the customer's perception of service quality which depends on the size and direction of the gap between the service that customer expects to receive and what he or she perceives to have been received (Papaioannou, Kriemadis, Mitsios & Kartakoullis 2018).

CUSTOMER RETENTION

One of the most important issues in business research is the effects of relationships and quality on customer's retention (Lin & Wu, 2011). Customer retention refers to a company's ability to keep its existing customers over a specific period, ensuring repeat business by maintaining customer satisfaction and loyalty (Kotler & Keller 2022). Kumar and Shah (2018) suggest that customer retention is the practice of engaging and retaining customers by consistently meeting their needs and expectations, thereby preventing them from switching to competitors. Customer retention encompasses strategies and actions aimed at building long-term relationships with customers, focusing on increasing the lifetime value of each customer by reducing churn rates (Zeithaml, Bitner & Gremler 2020). According to Hennig-Thurau and Hansen (2000), customer retention involves the efforts and initiatives taken by a business to maintain a stable and ongoing relationship with its customers, encouraging repeat purchases and fostering brand loyalty. Reichheld and Sasser (1990) suggest that customer retention is the continuous process of engaging customers through personalized experiences and value delivery, aimed at maximizing customer lifetime value and minimizing defection rates. Successful customer retention starts with the first contact an organization has with a customer and continues throughout the entire lifetime of a relationship. Customer retention is more than giving the customer what they expect; it is about exceeding their expectation so that they become loyal advocates for your brands. Retention and attraction of new customer are used as drivers for increasing market share and revenues. In the quest for customer

retention, it is important for firms to know how to serve their customers because post sales services are the important drivers for customer retentions. Customer retention is potentially one of the most powerful weapons that companies can employ in their fight to gain a strategic advantage and survive in today's ever- increasing competitive environment. It is vitally important to understand the factors that impact on customer retention and the role that it can play in formulating strategies and plans (Ibojo 2015). In the context of this paper, customer retention is the strategic procedure of cultivating customer relationships to sustain their continuous patronage.

RELATIONSHIP BETWEEN RECYCLE LOGISTICS PRACTICES AND MARKETING PERFORMANCE

The relationship between recycle logistics practices and marketing performance can be evaluated through the lens of sustainable supply chain management. Panya and Marendi (2021) highlight that the rising levels of global warming and environmental degradation have sparked concern among governments, societies, and business organizations. Research indicates that companies incorporating recycle logistics into their operations not only lower waste levels but also gain improved customer loyalty, brand distinction, and cost efficiencies through material reuse. Ogbo, Ukpere and Olokundun (2018) observed that recycling logistics has a positive effect on customer satisfaction and brand image, both crucial for marketing success in Nigeria. Eze, Agbo and Nwakoby (2020) focused on manufacturing firms in Nigeria and discovered that adopting recycle logistics practices, such as minimizing waste and reusing materials, resulted in higher customer satisfaction and sales growth. The study underscores the strategic benefits of eco-friendly practices, which enhanced the firms' marketing performance. Furthermore, Adebambo and Abiodun (2020) point out that firms with robust recycle logistics practices often achieve a competitive advantage, leading to increased market share and profitability. Aladejebi (2021) evaluated the effect of reverse logistics on marketing performance of food and beverage companies in Nigeria. The study revealed that companies employing reverse logistics for the collection and reuse of packaging materials saw improvements in brand reputation and customer loyalty, which positively impacted their marketing performance. Obiora and Nwankwo (2023) concentrated on the Nigerian textile industry, the study illustrated that firms with robust recycling initiatives not only lowered operational costs but also gained a competitive advantage, which resulted in stronger customer engagement and better market performance. Adeyemi, Lawal and Oluwaseun (2019) investigated the recycling practices of electronics firms in Nigeria and their influence on market performance. The results showed that companies with well-organized recycling programs experienced greater customer trust and increased sales, directly connecting their recycling efforts to better marketing outcomes. Lastly, Ugochukwu & Onwumere (2022) evaluated the recycling logistics strategies of Nigerian retail companies and found that those integrating recycle logistics into their operations saw improved customer perceptions and expanded market share, leading to enhanced marketing performance.

MATERIALS AND METHODS

This study adopted a cross-sectional research design to examine the relationship between recycling logistics practices and marketing performance of registered Breweries in Nigeria. The objectives of the study were to determine the extent to which procurement logistics practices relate with marketing performance in registered Breweries in Nigeria. From the objectives, the study attempted to provide answers to two research questions and two null hypotheses. The population of the study was six (6) registered Breweries in Nigeria. The researchers adopted a census method because of the small size of the study population. However, ten (10) managers were drawn from each of the six (6) of registered Breweries in the six geopolitical zones; (Plateau) North-central, (Kaduna) North-west, (Adamawa) North-east, (Abia) South-west and (Rivers) South-south. In all, sixty (60) managers constituted the respondents for the study. Data were collected through semi- structured questionnaire designed in the Likert 5-point scale of very low extent to very high extent. Data were analyzed using Pearson Product Moment Correlation (PPMC) to test the six hypotheses. To ascertain

the reliability of the research instrument, data from respondents were subjected to Cronbach's alpha Reliability test as displayed in Table 1 below. All computations were performed with the aid of the Statistical Package for Social Sciences (SPSS) version 23.0

Table 1 Reliability Coefficients of variable

S/No	Study variable	Number of items	Number of cases	Cronbach's Alpha
1	Recycling logistics practices	3	51	0.763
2.	Customer satisfaction	3	51	0.772
3	Customer retention	3	51	0.723

Source: Research data output, 2024

The table shows that all the variables have coefficients higher than the 0.70. This means that the instrument was sufficiently reliable to measure the variables in the study. It also illustrates that out of a total of sixty (60) copies of questionnaire distributed, only fifty (51) copies were retrieved useful for the analysis.

RESULTS

H₀₁: There is no Significant Relationship Between Recycle Logistics Practices and Customer Satisfaction of Registered Breweries in Nigeria.

Table 2: Relationship Between Recycle Logistics Practices and Customer Satisfaction

		Correlations	
		Recycle Logistics Practices	Customer Satisfaction
Recycle Logistics Practices	Pearson Correlation	1	.731**
	Sig. (2-tailed)		.000
	N	51	51
Customer Satisfaction	Pearson Correlation	.731**	1
	Sig. (2-tailed)	.000	
	N	51	51

** . Correlation is significant at the 0.01 level (2-tailed).

From results of the analysis shown on Table 2 there is a strong, positive and significant relationship between recycle logistics practices and customer satisfaction evident in the correlation coefficient is 0.731 and the probability value of 0.000 which is less than the alpha level of 0.05 (i.e. $p = 0.000 < 0.05$) indicating that the relationship between recycle logistics practices and customer satisfaction is strong and significant. Therefore, we reject the null hypothesis which states that recycle logistics practices does not significantly relate with customer satisfaction and accept the alternate hypothesis.

H₀₂: There Is No Significant Relationship Between Recycle Logistics Practices and Customer Retention of Registered Breweries in Nigeria.

Table 3: Relationship Between Recycle Logistics Practices and Customer Retention

		Correlations	
		Recycling Logistics Practices	Customer Retention
Recycle Logistics Practices	Pearson Correlation	1	.599**
	Sig. (2-tailed)		.000
	N	51	51

Customer Retention	Pearson Correlation	.599**	1
	Sig. (2-tailed)	.000	
	N	51	51

** . Correlation is significant at the 0.01 level (2-tailed).

From results of the analysis shown on Table 3 there is a strong, positive and significant relationship between recycling and customer retention evident in the correlation coefficient is 0.599 and the probability value of 0.000 which is less than the alpha level of 0.05 (i.e. $p = 0.000 < 0.05$) indicating that the relationship between recycle logistics practices and customer retention is significant. Therefore, we reject the null hypothesis which states that recycle logistics practices does not significantly relate with customer retention and accept the alternate hypothesis.

DISCUSSION OF FINDINGS

The relationship between recycle logistics practices and customer satisfaction was found to be strong, positive and significant evident in the correlation coefficient is 0.731 and the probability value of 0.000 which is less than the alpha level of 0.05 (i.e. $p = 0.000 < 0.05$) indicating that the relationship between recycling and customer satisfaction is significant. Similarly, a moderate and significant relationship was found between recycle logistics practices and customer retention as indicated in the correlation coefficient of 0.599 and the probability value of 0.000 which is less than the alpha level of 0.05 (i.e. $p = 0.000 < 0.05$). These findings are in line with the results of a study conducted by Panya and Marendi (2021), they found that firms who incorporated recycle practices increased customer loyalty, brand distinction, and cost efficiencies through material reuse. Similarly, Ogbo, Ukpere and Olokundun (2018) found that recycling logistics has a positive effect on customer satisfaction and brand image, both indicate high marketing performance. Eze, Agbo and Nwakoby (2020) found that recycle logistics practices leads to higher customer satisfaction and sales growth. The study underscores the strategic benefits of eco-friendly practices, which enhanced the firms' marketing performance. Also, Aladejebi (2021) indicate that firms with effective recycle logistics practices saw improvements in marketing performance. Additionally, results from Obiora & Nwankwo (2023) show that recycling initiatives leads to better marketing performance. Agreeing with the findings of this study, the Adeyemi, Lawal and Oluwaseun (2019) disclosed that firms with well-organized recycling logistics practices experienced greater customer trust and increased sales which are all measures of marketing performance. Lastly, Ugochukwu & Onwumere (2022) found that firms who integrate recycle logistics practices into operations experience enhanced marketing performance.

CONCLUSION AND RECOMMENDATIONS

As sustainability gains importance among consumers and regulators, Breweries that prioritize recycle logistics are more likely to achieve long-term success. This study examined the relationship between recycling logistics practices and the marketing performance of registered Breweries in Nigeria. The findings reveal that the relationship between recycle logistics practices and marketing performance is strong and significant. Thus, the study concludes that implementing efficient recycle logistics practices in registered breweries in Nigeria results in exceptional marketing performance. The study recommends that Beverage firms in Nigeria should adopt tracking systems to oversee bottle collection and returns. Additionally, it recommends training employees on the significance of recycling and how to effectively convey this message to customers.

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