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Reverse Logistics Practices and Marketing Performance of Registered Breweries in South-South Geopolitical Zone of Nigeria

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Abstract:
This study examines the relationship between reverse logistics practices and marketing performance of registered breweries in South-South geopolitical zone of Nigeria. Reverse logistics practices were operationalized into three dimensions: recycling, reuse and remanufacture. On the other hand, marketing performance was measured in terms of customer satisfaction and customer retention. The study adopted cross-sectional research design. The population of the study was six (6) registered breweries in South-South geopolitical zone of Nigeria as obtained from yellow page (2023). The research adopted a census study because of the small size of the study. However, 10 managers were drawn from each of the six (6) registered breweries making sixty (60) managers as respondents for the study. Data were collected through semi - structured questionnaire. Inferential statistics of Pearson Product Moment Correlation (PPMC) was used to test the hypotheses. These analyses were done with the aid of the Statistical Package for Social Sciences (SPSS version 23.0). From the data analysis, it was revealed that reverse logistics practices have positive and significantly relationship with marketing performance of registered breweries in South-South geopolitical zone of Nigeria. Based on this finding, the study concludes that the reverse logistics practices employed here are relatively good in the registered breweries firms especially in a competitive environment like South-South geopolitical zone. Therefore, the study recommends that registered breweries companies should adopt recycling practices to achieve customer satisfaction and retention, consider reuse the product to achieve customer satisfaction and retention and should remanufacture in order to solving problem that the company will encounter in future.

Keywords: Reverse Logistics Practices, Recycling, Reuse, Remanufacture, Marketing Performance, Customer Satisfaction, Customer retention.

Introduction

Environmental concerns, effects of climate change, scarcity of manufacturing raw materials and technological advancements have increased attention and focus on reverse logistics. According to Banihashemi (2019), environmental concerns presently have led manufacturing firms to redesign their processes in order to have environmentally friendly manufacturing and logistics system (Govindan, Soleimani & Kannana, 2015; Prakash, Barua & Pandya, 2015). As a result, logistics service providers, manufacturers and consumers alike are required to dismantle used products into their constituent parts for reuse, recycling, or safe disposal (Sheth, Sethia & Srinivas, 2011).

Adopting green strategies such as reuse, recycling and remanufacture helps in "greening" the physical environment leading to marketing performance (Sorkun & Onay, 2018). Reverse logistics is concerned with moving "end of useful life" goods from consumers to manufacturers so as to recapture value or ensure environmentally friendly disposal (Vahabzadeh, Asiaei & Zailanim, 2015). Reverse logistics is an issue that has received growing attention within the last few years, given the confluence of several situations. On the one hand, there is a verifiable concern about environmental matters and sustainable development (Meherishi, Narayana & Ranjani, 2019). On the other hand, economical reasons have also had their contribution in this increasing importance of reverse logistics issues. By means of the recycled products, companies stand the possibility of recovering either constituent materials that no longer need to be purchased in the same quantities, or added-value (Sorkun & Onay, 2018). According to Banihashemi, Feiand Chen (2019), reverse logistics entails logistics activities relating to recycling and disposal of waste and hazardous materials management. It systematically involves the cost-effective planning, implementation, and control of the efficient movement of raw materials, party completed and finished products, and the associated information from their usage locale back to their origin ether to reclaim value or for apt disposal (Asees Awan & Ali, 2019).

Although manufacturing companies globally are increasingly recognizing the importance of conserving the environment, implementation of reverse logistics strategies aimed at reducing environmental effect has been slow (Meherishi, Narayana & Ranjani, 2019). This is because manufacturing firms have information systems tailored to optimize forward logistics but similar systems for implementing reverse logistics have persisted at the planning stage. Similarly, the development of asset value recovery systems is also at its infancy (Dekker, Fleischmann, Inderfurth & Van Wassenhove, 2013). The concept of reverse logistics encompass the process of collecting used products, components, and materials from the field, disassemble them, separating them into sorts like materials, and processing into recycled products, components and materials. Neglecting the importance of recycle reverse logistics in any logistics and manufacturing process will only amount to jeopardizing the health and safety of the environment wherein such operation is taking which will negatively affect the organization's marketing performance (Sorkun & Onay, 2018). The implementation of reverse logistics among breweries in Rivers State is not as proactive as it should be (Vahabzadeh, Asiaei and Zailani, 2015) and that has limited the identity and reputation of most of the breweries and their brands in no small measure. Customers and other stakeholders in Nigeria have continued to decry the enormity of most breweries inability to meet up with recycle reverse logistics task as means to mitigate the environmental impact of their products (Sorkun & Onay, 2018). This ineptitude may be due to lack of enough researches that provide proper understanding of the pivot role of reverse logistics practices in achieving marketing performance. Thus, this study was an attempt to examine the empirical relationship between reverse logistics and marketing performance of registered breweries in South-South geopolitical zone of Nigeria.

The ability to make efficient use of natural and other resources defines a successful country or organization. Apart from aggressive and ever increasing competitive, unstable markets, many types of returns resulting from wrong deliveries and damages, and price volatility of materials, Nigeria as every other country world over is faced with the problem of limited raw materials for manufacturing (Morgan, Tokman, Richey & Defee, 2018). There is need for appropriate manufacturing strategy for efficient resource use as a way of making the country globally competitive and a prosperous nation. Mwaura, *et al.*, (2015) on the basis of their findings identified reverse logistics as key to efficient and effective resources management in country or organization as it affects economic, environmental and social performance of manufacturers. Traditionally, organizations have focused on improving their forward logistics activities; most have not treated the reverse logistics process with the same care and diligence afforded to traditional areas of logistics. Azevendo (2011) indicated that most manufacturing firms often focus on forward logistics and as a result, they tend to overlook the importance of reverse logistics activities and its potential of improving marketing performance.

Reverse logistics can cause considerable cost but also provides numerous opportunities and can therefore be regarded as a key element and part of the supply chain, even though it is often hidden (Horowitz, 2010). There are major barriers and obstacles to marketing performance of Nigerian breweries emanating inappropriate adoption of reverse logistics (Sorkun & Onay, 2018). Therefore, many organizations ignore reverse logistics functions and regard them as a nuisance (Morgan, *et al*, 2018). The reason for such problem is lack of top management awareness and commitment to reverse logistics (Azevendo, 2011). For instance, plastic wastes, including bottles and cans, have increasingly become a huge portion of waste posing environmental and health risks in the society. It is up to manufacturer's reverse logistics operations to separate the wheat from the chafe, performing triage and processing it all for recycling, reusing or remanufacturer to reduce costs and mitigate loss, (Business Daily, 2015), at the same time being considerate of the environment. Managers of Nigerian breweries lack clear understanding of the importance of reverse logistics in boosting marketing performance.

Despite the many studies in the areas of reverse logistics practices and marketing performance none of these studies has been conducted to assess how recycle, reuse and remanufacture relate with marketing performance of Nigerian breweries (to the best of our knowledge). Most of the existing studies are conducted in foreign countries. For instance, Turrisi (2012) looked at the impact of reverse logistics on supply chain performance in Italy while Khor and Udin (2012) conducted a study on impact of reverse logistics product towards business performance in Malaysian E & E Companies. There is therefore no clear evidence as to whether Nigeria breweries can achieve improved marketing performance through adoption of reverse logistics practices. It is therefore evident that there exists knowledge gap that needs to be filled through research. This study sought to fill this gap by determining the empirical relationship between reverse logistics practices and marketing performance of registered breweries in South-South geopolitical zone of Nigeria.

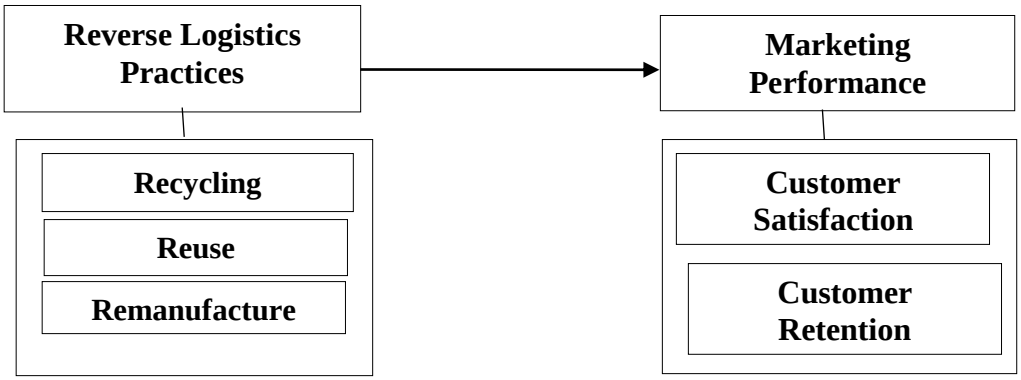

Figure 1: Conceptual framework of the relationship between Reverse Logistics Practices and Marketing Performance of Registered Breweries in South-South geopolitical zone of Nigeria.

Source: Desk Research, 2024.

Literature

Concept of Reverse Logistics Practices

Reverse Logistics, according to Yu *et al*, (2018), is understood as the process of planning, implementing and controlling, including raw materials and discarded products, in which the final destination is the pursuit of return to business cycle. Reverse logistics plans, operates and controls the logistics flow of post-sale and post-consumer products to the business cycle, promoting economic, ecological and legal values (Leite, 2009). According to Lysons and Farrington (2006), reverse logistics is "the process of planning, implementing, and controlling the efficient, cost effective flow of raw materials, in-process inventory, finished goods and related information from the point of consumption to the point of origin for the purpose of recapturing value or proper

disposal. According to Council of Supply Chain Management (2010) reverse logistics is "a specialized segment of logistics focusing on the movement and management of products and resources after the sale and after delivery to the customer." Reverse logistics is a process that enables organizations to become more environmentally capable through recycling, reusing and reducing the amount of materials used (Badenhorst, 2013).

Reverse logistics is the process in which products (e.g. end of life products) are returned from consumers or customer service centres for the purpose of gaining their value or planning for their proper disposal' (Dowlatshahi, 2011). Zhang (2010) delineate reverse logistics as the physical movement of goods formed by repairing and returning substandard goods as well as turnover containers returned to supply side from demand side. This involves the item entities' reverse flow process such as reclaiming pallets and containers used to transport, receiving the customer returns, collecting containers, raw materials, scrap and spare parts processing defects in the product sales. According to (Biswas, 2018) reverse logistics practices refers to the procedure of planning, implementing, and controlling the efficient, cost effective flow of raw materials in-process inventory, finished goods and related information from origin with an aim accruing value and or proper disposal.

From the above definitions, it can be seen that reverse logistics is basically the movement of materials from the customer side (downstream of supply chain) to the manufacturer and supplier side (upstream of supply chain). However, reverse logistics can start at distributors and retailers as well as within the organization where production waste by-products can be recollected and be reused. Therefore, reverse logistics can be defined as the process where materials are collected within the organization, from retailers and distributors as well as customers with the purpose of recapturing value and proper disposal to improve economic advantages, corporate image and reduce negative environmental impacts. For an effective reverse logistic, there need to have a reverse logistics team that is accountable for all the reverse logistics activities. This team should comprise of the top management and expertise personnel who can be accountable for all reverse logistic activities of the organization (S G, 2017). This team should have all the rights to make decisions at any point and set a management system to track all the activities end to end of a reverse logistics (Andrade *et al.*,2013). Also, the customers should be able to keep track of their products at various stages of the process. Carter and Ellram (1998) emphasize that recycling, reusing and reducing defectives are reverse logistics practices purposed to remove environmentally hazardous products from customers.

Recycling

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). According to (Wong, 2010, Salim, 2016), recycling is the breaking down of a used product into its component parts and reprocessing it into new or original forms. Examples of recyclable materials are plastic items, paper, glass, batteries, bulbs and metal materials. The process of recycling begins from bin collection where bins containing recyclable materials are taken. The bins are then transported to the firm. 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 these contemporary times, recycling of waste is a must say concept that acts as a lever in ensuring that waste related problems are avoided thus promotion of a healthy environment. 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, and reduce air pollution (Baker, 2008). Recycled materials can be converted into new products that can be consumed as paper, plastic and glass (Zhu *et al.*, 2008). Recycled products are not usable and it is not a must that the finished product must be of the original form or utility. In other words, the materials from the products to be recycled become raw materials to

produce other products (De brito, Dekker & Flapper, 2005). Recycling as well as reusing recycled materials proves to be advantageous for many reasons as it reduces the amount of waste sent to landfills, conserves natural resources, saves energy, reduces green gas emission and helps create new jobs (Ellram, 2006).

EL-Maghraby *et al.* (2010) emphasized that recycling requires significantly less energy, water23 and other resources to recycle materials than to produce new materials. Also, Bwire (2015) emphasized that by recycling plastic materials, production time is reduced, which means less greenhouse gas emissions into the atmosphere and conservation of resources. 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 recycling practices to ensure sustainable growth by reducing the consumption of natural resources and lessening environmental burdens. Recycled materials can also be converted into new products that can be consumed again such as paper, plastic, and glass (Zhu *et al.,* 2008). To an individual firm, this translates to cost savings and new streams of income Blumberg, (2005), which should improve the profitability. While most recyclable materials are non-biodegradable, it goes without saying that recycling firms save the environment from potential deterioration (Fawcett, Vellenga & Truitt, 1995).

Contrary to this, Duzgun *et al.* (2019) argued out that comparing recycling with other reverse logistics options like reuse, remanufacturing among others, recycling requires most effort. It consumes and requires most 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). 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 and 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). The above literature is in line with the Stakeholder's theory whose focus is to see how manufacturers handle plastic irritants that are a result of their operations through reverse logistics practices in order, to protect the external shareholders that is the environment.

Reuse

Reusing contributes to operational performance in many ways. Firstly, reusing saves energy because there’s no processing involved. This promotes cost savings. Secondly, reusing means that products can swiftly be taken back to the market so dependability and speed of delivery is improved (Salim, 2016). Hazen, Cegielski and Hanna (2011) pointed out that product or material can only be reused if its position in the supply chain is capable of moving in the reverse position. Reuse practices also reduces materials extraction, transportation thereby reducing operational costs (Alkaya & Demirer, 2015). According to Kopicki, Michael, and Legg (1993), reuse is any operation by which products or components that are not waste are used again for the purpose for which they were conceived.

Reuse as a practice of reverse logistics is one of the many approaches of adding value to waste thus leading to waste reduction in the environment (Kopicki *et al*., 1993). Reuse can be defined as

salvage of product, after it has been discarded without being reduced to its material level (Parker, 2018). Reusing is economically beneficial as it saves cost of materials by reusing materials, earning revenue from recovered materials and lowering the cost of disposal, procurement, inventory, transportation and maintenance of new products (Duzgun, 2019). More still, Cooper and Gutowski (2015) emphasized that recovered components through reusing practices financially save costs and environmentally avoid unwanted pollution. Nyerega (2015) suggested that the common reuse practices being adopted to a great extent by firms is returning of used products and packaging materials to the supplier. Contrary to this, the author further asserts that developing appropriate design for packaging materials and the use of renewable energy as source of energy were to a small extent being applied by manufacturing firms. In this regard, González-Torre, Adenso-Díaz, and Artiba (2004) emphasized that companies may become more environmentally efficient through activities such as recycling, reusing and reducing the amount of materials used

Remanufacturing

The focus of reverse logistics is on management of waste, recycling and recovery of parts or products (remanufacturing). Remanufacturing is the process where some components of the used products are disassembled, cleaned, reprocessed, inspected, and reassembled so that it can be used again (Atasu, Sarvary & Wassenhove, 2008). Remanufacturing is the process of restoring used product to at least original equipment manufacturer (OEM) performance specification which involve complete product disassembly before proceeding with extensive testing, restoration and replacement of worn-out or outdated components or module (Khor & Udin, 2012). Remanufacturing implies that used components are collected and transported to remanufacturing facilities and when necessary these are disassembled, checked, tested, cleaned, repaired and determined to be safe and fully functional for placing back on the market (Sundin, 2004). Remanufacturing implies that used components are collected and transported to remanufacturing facilities and when necessary these are disassembled, checked, tested, cleaned, repaired and determined to be safe and fully functional for placing back on the market (Sundin, 2004). Remanufacture occurs if there are limited possibilities of reuse of the items or not. Proper management of remanufacturing practices creates perfect and profitable opportunity and realization of value that would go into loss (Alfred Eshikhati & Nairobi, 2014).

Ovchinnikov *et al.* (2014) in their study suggested that in the majority of the cases, remanufacturing decreases both costs and energy conservation. Still in the study conducted by Sustainable Resource group (2012) revealed that remanufacturing can enhance organization's financial and environmental performance. Van Wassenhove and Zikopoulos (2010) argue out that due to the adoption of remanufacturing practices, environmental performance significantly increases, because the bottom line of reverse logistics practices is to reduce harmful effects on environment which do not only reduce solid waste but also improve efficiency of operations. The process of remanufacturing is valuable to remanufacturing firms in several ways. For one, remanufacturing firms are not required to produce new products from scratch. This means that there is an enormous cut down on the costs of generating raw materials to make new products.

In fact, the cost of raw materials for many such firms is reduced by over 70 per cent (Barnes, 2010). Since the consumers are expected to return used and faulty products to the remanufacturing firm, the process saves the firm almost all its transport costs. Contrary to the above, it is not clear whether remanufacturing is a preferable option since it may lead to higher number of emissions derived from number of transports required in order to get the products to the remanufacture**.** Asiimire (2015) suggested that remanufacturing practices among the manufacturing firms was to a small extent being practiced among the firms due to inefficiencies exhibited in product warranty issues, training of employees on repair.

Concept of Marketing Performance

According to Didier (2002) cited by Hashem (2015), performance consists in "achieving the goals that were given to you in convergence of enterprise orientation". 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. According to Radipere and Dhliwayo (2014), performance is described as how good an organization is accomplishing its objectives. Performance can also be explained as the capacity of a company to satisfy the intent of the organization and main stakeholders (Aminu & Shariff, 2015). Performance is assumed as organizational accomplishment affiliated with the set goals. It encompasses firm's set goal through coordinated individual or firm's team work. Performance as a concept embraces behavioral outcomes and economic achievements. Performance management explains the manner in which employees are methodologically handled in order to bring about productivity, revolution, satisfaction and goal motivation in the organization. It is a consistent strategy that brings about a positive achievement. It is passionate about making sure all managers excel. i.e. all team members who are genuinely part of, and neck deep into the planning and implementation process (Uke, 2018).

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 (Peterson *et al.*, 2003; Taouab & Isor, 2019). Marketing performance encompasses various metrics that evaluate the effectiveness of marketing activities in achieving organizational goals, such as revenue generation, customer engagement, brand awareness, and market share (Barango-Tariah, Opara, & Hamilton-Ibama, 2023). The marketing's performance has to turn into appropriate notion in strategic management research and has been often used as a dependent variable which refers to the extent to which business goals have been attained within a specified period of time and is the procedure of gauging the outcomes of a company's strategies and actions in budgetary terms. The firms require adopting innovative practices in its service distribution processes in order to aid their ability to cultivate varying types of customer service so as to ensure better competitive advantage and greater financial performance (Chen *et al.*,2009). Further, (Tugores & Garcea, 2015) argued that investing in innovative activities, whether, in overheads or differentiated strategy, innovation is regarded as the central element which in both instances result in better performance indicators for the firm. Others argue that innovation in service delivery process would augment superior financial performance (Chen *et al*., 2009; Lin, 2013; Lilly & Luma, 2014). Marketing performance is a company effort to know and meet the needs and tastes of consumers (Rodríguez & Morant, 2016). Purwasari and Suprapto (2012) stated that marketing performance measurement is a supervisory function of marketing management to create, build, and maintain relationships with buyers intended to achieve organizational goals.

Measuring marketing performance has been a cardinal issue in marketing and stays a vigorous concern for enormous majority of companies (Morgan, Clark & Gooner, 2002). Business practitioners and academics have both been attracted to the topic with an insistence and intentions previously unexampled (Clark, 1999). 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 and 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. Harcourt and Ikegwuru (2018), identified customer acquisition while 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. This study adopts customer retention and customer satisfaction as non-financial measure from extant literature as the measure of marketing performance.

Customer Satisfaction

Customer satisfaction is feeling or attitude toward a product or service after its use. Customer satisfaction is the result of between marketing activities that acts as a communication bridge between different stages of consumer buying behavior (Shahram, Taleghani & Reza, 2013). Customer satisfaction is the result of a comparison between customer purchase of the expected

performance with actual performance and perceived and payment expenses (Taghizadeh, 2012). Customer satisfaction is a physical concept that is due personal comparison from understanding of product performance with the experience obtained by the performance (Chu, 2002). According to Kotler (2009), satisfaction is a feeling that surfaces from an evaluation process, i.e. when the consumer of a good or service compares what is received against what is expected from the utilization of that good or service.

The concept of 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). Customer satisfaction is indeed one of the most essential elements of marketing performance, as markets continue to shrink, companies are scrambling to boost customer satisfaction in order to keep their current customers rather than devoting additional resources to chase new ones (Ateke & Iruka, 2015). Satisfaction is the consumer's fulfilment response. It is a judgment that a product or service feature, or the products of service itself, provided or is providing a pleasurable level of consumption-related fulfilment, including levels of under or over-fulfilment. Attaining a high level of customer satisfaction usually requires more than providing a high-quality product (Hamilton-Ibama & Ogonu, 2021).

The former concept highlights the fact that satisfaction is determined through a cognitive procedure by comparing what customers give up to get a service (cost) and what they receive in response (reward) however the later concept takes satisfaction as emotional feeling that results during the process of evaluation (Tam, 2014). Consistent with this concept, we can say that "customer satisfaction is defined as an emotional response, which results from a cognitive process of evaluating the service received against the costs of obtaining the service" (Woodruff *et al.* 2001). Customer satisfaction has been the subject of considerable research, and has been defined and measured in many ways (Byerlee *et al.*, 2012). It is either that customers are satisfied with the services they receive or dissatisfied. If customers get what they want they are satisfied, if not they are dissatisfied (Edquist, 2017).

Customer satisfaction is the degree between customers' expectations of service quality and the service as perceived by the customer (Edquist, 2017). It is the customer's fulfillment response to a customer experience, or some part thereof (Byerlee *et al.*, 2012). Customer satisfaction is used as a measure of how products and services supplied by a company meet or surpass customer expectation and it is seen as a key performance indicator within businesses. 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. Organizations need to retain existing customers while targeting non-customers. Measuring customer satisfaction provides an indication of how successful the organization is at providing products and/or services to the marketplace (Spielman *et al.*, 2018). Customer satisfaction is an abstract concept and the actual manifestation of the state of satisfaction will vary from person to person and product/service to product/service. The state of satisfaction depends on a number of both psychological and physical variables which correlate with satisfaction behaviors (Edquist, 2012). The usual measure of customer satisfaction involves a survey with a set of statements using a Likert Technique or scale. The customer evaluates statements in terms of their perception and expectation of performance of the service being measured. A business can measure its customer satisfaction index by relating the aggregates of satisfied customers versus dissatisfied customers (Eriksson *et al*, 2018).

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 *et al*, 2016). Customer satisfaction is a pleasant fulfillment response while dissatisfaction is an unpleasant fulfillment response. The experience of component of the definition suggests that the satisfaction evaluation can be directed at any or all elements of the customer's experience. This can include product, service, process and any other components of the customer experience (Hall, 2015).

Customer Retention

The vital issue in relationship marketing research was the effects of relationships and quality on customer's retention (Lin & Wu, 2011). Retention and attraction of new customer are used as drivers for increase in market share and revenues (Rust *et al*, 1995). In the retention of customer, it is important for firm to know who to satisfy and how to effectively satisfy their customers. Post sales services are the important drivers for customer retentions (Saeed *et al*, 2005). It is important for product/service provider to emphasis on the quality of product and service. As it is stated that there is statistically significant relationship between quality commitment, trust and satisfaction and customer retention and future use of product, as retention is influenced by future use of product.

Customer Retention is the activity that a selling organization undertakes in order to reduce customer defections. 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 refers to keeping a client's business rather than have the client use competitors' services or products. Businesses want to reduce customer defections to their competitors because a reduction in their market share and profits could result in a collapse of the company (Hamilton-Ibama & Ihunwo, 2022). Customer retention on the other hand is defined by different studies in different ways like Gerpott, Ram and Schindler (2011). They stated that customer retention is the continuity of the business relations between the customer and company. 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 (Rust, *et al*, 2015). In the retention of customers, it is important for firm to know how to serve their customers because post sales services are the important drivers for customer retentions (Saeed, *et al*, 2017). A company's ability to attract and retain new customers, is not only related to its product or services, but strongly related to the way it services its existing customers and the reputation it creates within and across the marketplace (Hamilton-Ibama & Ogonu, 2024).

Gets and Thomas (2011) state that customer retention occurs when customer purchase a product or services again and again, this phenomenon is called customer retention over an extended period of the time. Huit (2000) defined customer retention as the process by which consumers interpret price and attribute value to a good or service. Buttle (2014) customer retention is the number of customers doing business with a firm at the end of a financial year expressed as a percentage of customers that were active at the beginning of the year. While the precise meaning and measurement of customer retention can vary between industries and firms there appears to be a general consensus that focusing on customer retention can yield several economic benefits, as customer tenure lengthens, the volumes purchased grow and customer referrals increase. 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 (Ibojofg, 2015).

Empirical Review on Reverse Logistics Practices and Marketing Performance

Waithaka (2012) studied reverse logistics practices in medical supplies by looking at the case study of Kenya Medical Supply Agency. Although his study showed that the adoption of reverse logistics practices at the Kenya Medical Supply Agencies was low, there was a positive relationship between reverse logistics and operational performance of the agency. Ongombe

(2012) looked at the relationship between reverse logistics and competitive advantage in water 50 percent of the returned products are successfully re-captured and re-circulated back to the market. Similarly, Guta (2016) attempted to determine the extent EABSC has adopted reverse logistics practices and investigate the relationship between reverse logistics practices and organizational performance. A descriptive cross-sectional survey study was used to provide empirical data to help address the existing research gap. The study sample consisted of 111 employees selected through stratified random sampling. The inferential relationship was imputed using Pearson correlation analysis. The findings showed that EABSC has adopted reverse logistic practices to appreciable levels. Specifically, it was seen that reuse and recycle reverse logistics practice were found strongly correlated with organizational performance and both reuse & recycle have strong positive correlation with financial and market performance.

Again, Okumu and Juma (2019) studied influence of reverse logistics practices on customer perception of motor vehicle dealers in Kisumu County, Kenya. The overall objective of this study was to establish the effects of reverse logistics practices on customer perception by motor vehicle dealers in Kisumu County, Kenya. The research was steered by two objectives; To examine the extent to which product reuse on reverse logistics practices affects customer perception of motor vehicle dealers in Kisumu County and to establish whether product remanufacture on reverse logistics practices affects customer perception by motor vehicle dealers in Kisumu County. The study embraced a descriptive research design. The target population of this study was fifty employees including staff in the finance, procurement, sales and warehouse departments of seven motor vehicle dealers whose business was dealership in new vehicles and parts in Kisumu County. The research used a structured questionnaire to collect primary data for making conclusions. Data was then evaluated using tables and percentages. Purposive sampling method was used. Data was analyzed using SPSS, Inferential statistics such as correlation and regression was also used. The study found out that product return and product remanufacture positively and significantly influenced customer perception among motor vehicle dealers in Kisumu County.

Re-cycling and Marketing Performance

Muthemba (2016) found out that firms carrying out re-cycling affirmed that 100 percent of returned products are re-cycled. The study recommends that more focus and enlightenment needs to be done to the manufacturing firms to adopt reverse logistics as a social responsibility as well as to enhance proper disposal of their products, support environmental conservation and carbon reduction policies in generation of green strategy out of the disposal and re-cycling of returned products. Further, the firms should develop innovative products that provide extended value in reuse for other purposes after the primary products are consumed.

Similarly, Mwaura, *et al.,* (2015), in their study, reverse logistics practices and the effect on competitiveness of food manufacturing firms in Kenya, sought to find out the extent of cost savings that waste product recycling contributed. The results indicated that in more than 50% of the companies the use of reverse logistics had led to a reduction of costs in acquiring new/virgin raw materials. Of the companies that practiced waste product recycling. 35.4% experienced minimal savings on their production costs-less than 10%, while 27.1% saved to an extent of between 10-20%. This study recommends that measures to facilitate collection of used packaging and expired 23 products should be instituted within the country. This can be done by having collection points where customers could drop off used containers and expired products.

Reuse and Marketing Performance

A study conducted by Waithaka (2012) tried to establish the effects of reuse logistics practices on customer perception. Wambaya, Oketch, Namusonge and Sakwa (2018) investigated effects of reuse logistics on procurement performance among state corporations in Kenya (A case of Kenya Medical Supplies Authority-KEMSA). The study was guided by the following research objectives: to determine the effect of third party logistics; to establish the effect of information management; to assess the effect of lean agile manufacturing; and to evaluate the effect on waste management in

procurement performance in Kenya. A sample of 150 respondents were employed using stratified random sampling techniques based on strata in the management level. Multiple Linear Regression was used for the analysis and revealed a relationship.

Similarly, Ongombe (2012) looked at the relationship between reuse logistics and competitive advantage in water bottling companies in Nairobi. This study concluded that there was indeed a strong relationship between reuse dimensions of reverse logistics and competitive advantage. Companies that implemented reverse logistics practices benefitted from increased profit margins due to reduction in production costs and increased sales. Again, Serut (2013) whose main concern was on the financial aspect of organizational performance. Although his study found a positive relationship between reuse dimensions of reverse logistics and organizational performance, this study argues that reverse logistics is a broad concept and therefore should be broken down into sub components of reuse. The kind of data he collected was mainly concerned on the financial aspect of an organization's performance, while this study focuses on organizational performance as a whole which include marketing performance as well as financial performance. This shows that reuse practices have a strong positive relationship with marketing performance.

Remanufacturing and Marketing Performance

Li *et al.,* (2018) studied the effect of introducing upgraded remanufacturing strategy on original equipment manufacturer (OEM's) decision. In this study, remanufacturing is indicated to have great economic and environmental potential. Currently, resale is the main way of realizing the value of remanufactured products. Although remanufactured products have the same quality and function as new products, lack of consumer acceptance of remanufactured products prevents OEM 20 from realizing the full potential value by remanufacturing. Although remanufacturing is provided to be profitable, many enterprises still do not choose to remanufacture.

Again, Mbovu and Mburu (2018) conducted a study on the influence of reverse logistics practices on enhancing competitiveness in manufacturing firms in Kenya in a particular case of East African Breweries Limited. In the study they concluded that remanufacturing practice has a significant influence on competitiveness of the manufacturing firms in Kenya. This implies that increasing levels of remanufacturing practices would increase the levels of competitiveness of the manufacturing firms in Kenya.

Methodology

This study adopted an explanatory research design with a correlational type of investigation. The study adopted the use of questionnaire as the instrument of primary data collection. The population of the study was six (6) breweries operating within the South-South geopolitical zone of Nigeria as enlisted in the Nigerian Breweries (2022). The sample size of this study was the same as the population given the small population size. The study adopted census method of administering ten (10) copies of questionnaire to managers of each of the firms. This means that a total of 60 respondents were used. The categories of managers include marketing manager, logistic manager, production manager, general manager, ICT manager, branch manager, innovative manager, sales manager, design and packaging manager and customer care manager. A total of 60 copies of the questionnaire were distributed to the target audience. 51 copies (87.62%) were retrieved and used for the analysis. The inferential statistics was done using Pearson's Product Moment Correlation tool to determine the relationship between the independent and dependent variables, as well as to test the research hypotheses with the aid of Statistical Package for Social Sciences (SPSS) versions 23.0.

Analysis and Results

Test of Hypotheses

H_{01}: There is no significant relationship between recycling and customer satisfaction of registered breweries in South-South geopolitical zone of Nigeria.

Table 1: showing relationship between recycling and customer satisfaction

Correlations

		Recycling	Customer Satisfaction
Recycling	Pearson Correlation	1	.431**
	Sig. (2-tailed)		.000
	N	51	51
Customer Satisfaction	Pearson Correlation	.431**	1
	Sig. (2-tailed)	.000	
	N	51	51

**. Correlation is significant at the 0.01 level (2-tailed). SPSS versions 23.0

Table 1 revealed a strong, positive and significant relationship between recycling and customer satisfaction. Evident in the correlation coefficient is 0.431 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. Therefore, we reject the null hypothesis which states that recycling does not significantly relate with customer satisfaction and accept the alternate hypothesis.

H_{02}: There is no significant relationship between recycling and customer retention of registered breweries in South-South geopolitical zone of Nigeria.

Table 2: showing relationship between recycling and customer retention

Correlations

		Recycling	Customer Retention
Recycling	Pearson Correlation	1	.399**
	Sig. (2-tailed)		.000
	N	51	51
Customer Retention	Pearson Correlation	.399**	1
	Sig. (2-tailed)	.000	
	N	51	51

**. Correlation is significant at the 0.01 level (2-tailed). SPSS versions 23.0

Table 2 revealed that there is a strong, positive and significant relationship between recycling and customer retention. Evident in the correlation coefficient is 0.399 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 retention is significant. Therefore, we reject the null hypothesis which states that recycling does not significantly relate with customer retention and accept the alternate hypothesis.

H_03: There is no significant relationship between reuse and customer satisfaction of registered breweries in South-South geopolitical zone of Nigeria.

Table 3: showing relationship between reuse and customer satisfaction

Correlations

		Reuse	Customer satisfaction
Reuse	Pearson Correlation	1	.322*
	Sig. (2-tailed)		.000
	N	51	51
Customer satisfaction	Pearson Correlation	.322*	1

	Sig. (2-tailed)	.000	
	N	51	51

*. Correlation is significant at the 0.05 level (2-tailed). SPSS versions 23.0

From the results of the analysis shown on Table 3, there is a strong, positive and significant relationship between reuse and customer satisfaction evident in the correlation coefficient is 0.322and 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 reuse and customer satisfaction is significant. Therefore, we reject the null hypothesis which states that reuse does not significantly relate with customer satisfaction and accept the alternate hypothesis.

$H_0$4: There is no significant relationship between reuse and customer retention of registered breweries in South-South geopolitical zone of Nigeria.

Table 4: showing relationship between reuse and customer retention

Correlations

		Reuse	Customer retention
Reuse	Pearson Correlation	1	.527**
	Sig. (2-tailed)		.000
	N	51	51
Customer retention	Pearson Correlation	.527**	1
	Sig. (2-tailed)	.000	
	N	51	51

**. Correlation is significant at the 0.01 level (2-tailed). SPSS versions 23.0 **.

From the results of the analysis shown on Table 4, there is a strong, positive and significant relationship between reuse and customer retention evident in the correlation coefficient is 0.527 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 reuse and customer retention is significant. Therefore, we reject the null hypothesis which states that reuse does not significantly relate with customer retention and accept the alternate hypothesis.

H_{05}: There is no significant relationship between remanufacture and customer satisfaction of registered breweries in South-South geopolitical zone of Nigeria.

Table 5: showing relationship between remanufacture and customer satisfaction

Correlations

		Remanufacture	Customer satisfaction
Remanufacture	Pearson Correlation	1	.465**
	Sig. (2-tailed)		.000
	N	51	51
Customer satisfaction	Pearson Correlation	.465**	1
	Sig. (2-tailed)	.000	
	N	51	51

**. Correlation is significant at the 0.01 level (2-tailed). SPSS versions 23.0

Table 5 showed that there is a strong, positive and significant relationship between remanufacture and customer satisfaction evident in the correlation coefficient is 0.465 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 remanufacture and customer satisfaction is significant. Therefore, we reject the null hypothesis which states that remanufacture does not significantly relate with customer satisfaction and accept the alternate hypothesis.

H_{06}: There is no significant relationship between remanufacture and customer retention of registered breweries South-South geopolitical zone of Nigeria.

Table 6: showing relationship between remanufacture and customer retention

Correlations

		Remanufacture	Customer Retention
Remanufacture	Pearson Correlation	1	.498**
	Sig. (2-tailed)		.000
	N	51	51
Customer Retention	Pearson Correlation	.498**	1
	Sig. (2-tailed)	.000	
	N	51	51

**. Correlation is significant at the 0.01 level (2-tailed). SPSS versions 23.0

From results of the analysis shown on Table 6, there is a strong, positive and significant relationship between remanufacture and customer retention evident in the correlation coefficient is 0.498 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 remanufacture and customer retention is significant. Therefore, we reject the null hypothesis which states that remanufacture does not significantly relate with customer retention and accept the alternate hypothesis.

Discussion of Findings

Relationship between Recycling and Marketing Performance

The relationship between recycling and customer satisfaction was found to be strong, positive and significant evident in the correlation coefficient is 0.431 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 recycling and customer retention as indicated in the correlation coefficient of0.339 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 Muthemba (2016) found out that firms carrying out re-cycling affirmed that 100 percent of returned products are re-cycled. The study recommends that more focus and enlightenment needs to be done to the manufacturing firms to adopt reverse logistics as a social responsibility as well as to enhance proper disposal of their products, support environmental conservation and carbon reduction policies in generation of green strategy out of the disposal and re-cycling of returned products. Further, the firms should develop innovative products that provide extended value in reuse for other purposes after the primary products are consumed. Similarly, Mwaura, *et al.*, (2015), in their study, reverse logistics practices and the effect on competitiveness of food manufacturing firms in Kenya, sought to find out the extent of cost savings that waste product recycling contributed. The results indicated that in more than 50% of the companies the use of reverse logistics had led to a reduction of costs in acquiring new/virgin raw materials. Of the companies that practiced waste product recycling. 35.4% experienced minimal savings on their production costs-less than 10%, while 27.1% saved to an

extent of between 10-20%. This study recommends that measures to facilitate collection of used packaging and expired 23 products should be instituted within the country. This can be done by having collection points where customers could drop off used containers and expired products.

Relationship between Reuse and Marketing Performance

The relationship between reuse and customer satisfaction was found to be moderate and significant evident in the correlation coefficient is 0.322 and the probability value of 0.000 which is less than the alpha level of 0.05 (i.e. $p = 0.000 < 0.05$). Similarly, very strong, positive and significant relationship was found between reuse and customer retention as indicated in the correlation coefficient of0.527 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 findings of a study conducted Waithaka (2012) tried to establish the effects of reuse logistics practices on customer perception Wambaya, Oketch, Namusonge and Sakwa (2018) investigated effects of reuse logistics on procurement performance among state corporations in Kenya (A case of Kenya Medical Supplies Authority-KEMSA). The study was guided by the following research objectives: to determine the effect of third party logistics; to establish the effect of information management; to assess the effect of lean agile manufacturing; and to evaluate the effect on waste management in procurement performance in Kenya. A sample of 150 respondents were employed using stratified random sampling techniques based on strata in the management level. Completed questionnaires were edited for completeness and consistency, checked for errors and omissions and then coded and analyzed qualitatively and quantitatively. Multiple Linear Regression.

Similarly, Ongombe (2012) looked at the relationship between reuse logistics and competitive advantage in water bottling companies in Nairobi. This study concluded that there was indeed a strong relationship between reuse dimensions of reverse logistics and competitive advantage. Companies that implemented reverse logistics practices benefitted from increased profit margins due to reduction in production costs and increased sales. Again, Serut (2013) whose main concern was on the financial aspect of organizational performance. Although his study found a positive relationship between reuse dimensions of reverse logistics and organizational performance, this study argues that reverse logistics is a broad concept and therefore should be broken down into sub components of reuse. The kind of data he collected was mainly concerned on the financial aspect of an organization's performance, while this study focuses on organizational performance as a whole which include marketing performance as well as financial performance. This shows that reuse practices have a strong positive relationship with marketing performance.

Relationship between Remanufacture and Marketing Performance

The relationship between remanufacture and customer satisfaction was found to be strong and significant evident in the correlation coefficient is 0.465 and the probability value of 0.000 which is less than the alpha level of 0.05 (i.e. $p = 0.000 < 0.05$). Similarly, a strong and significant relationship was found between remanufacture and customer retention as indicated in the correlation coefficient of0.498 and the probability value of 0.000 which is less than the alpha level of 0.05 (i.e. $p = 0.000 < 0.05$).

Findings of this study are consistent with the findings of Li et al., (2018) studied the effect of introducing upgraded remanufacturing strategy on original equipment manufacturer (OEM's) decision. In this study, remanufacturing is indicated to have great economic and environmental potential. Currently, resale is the main way of realizing the value of remanufactured products. Although remanufactured products have the same quality and function as new products, lack of consumer acceptance of remanufactured products prevents OEM 20 from realizing the full potential value by remanufacturing. Although remanufacturing is provided to be profitable, many enterprises still do not choose to remanufacture.

Again, Mbovu and Mburu (2018) conducted a study on the influence of reverse logistics practices on enhancing competitiveness in manufacturing firms in Kenya in a particular case of East African Breweries Limited. In the study they concluded that remanufacturing practice has a significant influence on competitiveness of the manufacturing firms in Kenya. This implies that increasing levels of remanufacturing practices would increase the levels of competitiveness of the manufacturing firms in Kenya.

Conclusion and Recommendations

The findings strongly indicate the level of existence of relationship between reverse logistics practices and marketing performance. The study concludes that the reverse logistics practices employed are relatively good in the registered breweries firms especially in a competitive environment like South-South geopolitical zone. Founded on the findings and conclusion of this study, the research thus recommends that registered breweries companies should adopt a recycling practices to achieve customer satisfaction and retention. Breweries managers should consider reuse the product to achieve customer satisfaction and retention. Finally, breweries managers should remanufacture in order to solving problem that the company will encounter in future.

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