

REVERSE LOGISTICS AND CORPORATE VITALITY OF ROAD CONSTRUCTION COMPANIES IN RIVERS STATE

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Abstract

This study examined the correlation between reverse logistics and corporate viability of road building firms in Rivers State. The study used reverse logistics unidimensionally, and decomposed corporate vitality into growth, responsiveness and customer satisfaction. Thus, the study formulated 3 hypotheses. The study population consisted 18 road construction enterprises. The study employed a census approach to distribute 3 copies of questionnaire to Site Manager, Logistics Manager and Project Supervisor of each of the construction firms. Data were collected from respondents were using Pearson's Product Moment Correlation relying on the Statistical Package for the Social Sciences version 23.0. The results indicated a positive and statistically significant correlation between reverse logistics and dimensions of corporate vitality. This means that reverse logistics correlates with corporate viability of road building firms in Rivers State. Study concluded that reverse logistics is essential to corporate vitality of road construction firms in Rivers State; and recommends that managers of road construction companies in Rivers State that aspire to achieve improved corporate vitality that manifests in growth, responsiveness and customer satisfaction should adopt reverse logistics not just as an operational necessity, but as a strategic posture.

Keywords: Customer satisfaction, corporate vitality, growth, responsiveness, reverse logistics.

Introduction

Companies always been concerned about their health, how successful they are and how well their performance compare to that of competitors. This is because the contemporary operating environment challenges firms to “grow or go;” they either shape up or shutter (Ateke & Nwulu, 2021). This challenge as made corporate is recurrent concern in business praxis. Corporate vitality is a firm’s ability to innovate, adapt and grow sustainably over time. It encompass both economic performance and organizational health, emphasizing resilience, agility and capacity for continuous learning (Harcourt & Ateke, 2018).

Corporate vitality is a concept grounded in the dynamic capabilities framework, which suggests that firms must develop capabilities to integrate, build and reconfigure internal and external competencies to address rapidly changing environmental conditions (Teece et al., 1997). It also aligns with organizational ambidexterity, where firms balance exploration of new opportunities with the exploitation of existing resources (Amesi et al., 2022). Hence, corporate vitality is often associated with leadership that promotes a shared vision, a strong corporate culture, and open communication across all levels of the organization (Schein, 2010); which enable firms respond proactively to disruptions, and foster growth and long-term sustainability.

As competition intensify, consumers become more demanding and globalization blur national boundaries, firms has experimented with different ploys in their effort to improve their wellness (Ateke & Amangala, 2021). One ploy that has gained increased attention among business practitioners and researchers alike is reverse logistics - the process of moving goods from their typical final destination for the purpose of capturing value or proper disposal.

Reverse logistics goes beyond recycling to encompass a wider range of operations such as returns management, remanufacturing, refurbishing and proper disposal; with a view to reduce cost, become more eco-friendly and increase customer satisfaction (Sarkis, 2003). The advent of the idea of reverse logistics is often traced to increased environmental regulations and growing consumer awareness sustainability (Govindan et al., 2015). Yet, proactive companies key into the drive for sustainability and exploit it for profits.

Freeman (1984) states that businesses create value for owners, employees, customers, suppliers and society at large by adopting sustainable business practices, including reverse logistics. Firms that implement reverse logistics effectively differentiate themselves from rivals, and also benefit from resource efficiency, waste reduction, improved corporate image and competitive advantage.

In addition, firms that adopt reverse logistics practices tend to exhibit greater resilience and adaptability, which are essential to corporate vitality. This suggests that reverse logistics is not just an operational necessity, but a strategic imperative to sustainability and innovation. These positive outcomes of reverse logistics notwithstanding, firms, especially those in construction are slow to adopting reverse logistics practices. This raises the concerns as to relevance of the practice to firms outside of manufacturing. Therefore, this study opts to provide actionable insight into the connection between reverse logistics and corporate vitality by examining the variables within the context of construction companies in Rivers State.

Theoretical Foundation of the Study

Theories enable the connection of our literary evaluation with certain socio-economic perspectives rooted in established intellectual tradition. This study is premised on the Closed-Loop Supply Chain (CLSC) model which emphasizes the integration of forward and backward logistics to create a seamless flow of products and materials through the supply chain. It highlights the importance of designing systems that not only facilitate the movement of products to customers but also enable efficient returns and recycling.

CLSC involves several stages: collection, processing, remanufacturing and redistribution. Research has shown that companies that adopt CLSC approach reduce waste, lower costs and improve profitability through effective recovery of products and materials (Guide & Van Wassenhove, 2009). The CLSC model also aligns with sustainability goals, as it promotes recycling and reuse of products, thereby minimizing environmental impact.

Concept of Reverse Logistics

Reverse logistics is a sequence of procedures required to reclaim used or returned products for reuse, recycling or proper disposal (Bai & Sarkis, 2013). It involve entails redirecting goods from their conventional final destination to facilitate value recovery or suitable disposal.

Reverse logistics goes beyond repurposing containers and recycling packaging materials. Redesigning packaging to reduce material usage and minimize energy consumption and pollution from transportation are important aspects of reverse logistics (Kaberger & Richu, 2015). Reverse logistics also include administration of returned merchandise due to damage, seasonal stock, restocking, salvage operations, product recalls and asset recovery. Used and unneeded items, components parts and raw materials are all part of reverse logistics operations.

Reverse logistics process is classified two primary sectors, based on whether the reverse flow concern items or packaging (Wambaya et al., 2018). Terms synonymous with reverse logistics include aftermarket logistics, retrologistics and aftermarket supply chain (Mahmoudi et al., 2019). Morrell (2001) contends that reverse logistics is an overlooked facet of supply chain management as many organisations do not treat it with the same rigor as forward logistics.

Operations in reverse logistics often include asset recovery, managing defective products, salvage activities, product recalls, recycling and disposal of dangerous materials and obsolete equipment (Mahmoudi et al., 2019). Effective reverse logistics operations leads to reduced materials consumption due to lower returns, material reuse and recycling efforts (Wambaya et al., 2018), hence, efficiently execute product recovery.

Concept of Corporate Vitality

Corporate vitality represent economic and operational health of an organisation that enables continuous functioning. Corporate vitality embodies a firm's energy expressed through its resources, talents and competences; and which enable competitiveness, sustainability and the achievement of competitive advantage. Corporate vitality is crucial to growth and sustainability.

Financial, intellectual and creative progress of a firm are critical to its vitality. Corporate vitality, as articulated by Smith et al. (2017) denote the impetus that propel organisations towards successful goal achievement. It is the health of an organisation, marked by resource availability and the energy required for progress and achievement of objectives. Companies seek vitality by developing new resources or enhancing the value of existing ones to facilitate competitiveness and market leadership (Scuotto et al., 2017).

Afema (2014) posits that corporate vitality encompasses the aggregate momentum derived from a firm's strengths, capabilities, and processes that facilitate strategic endeavors to attain competitive advantage. Vitality in organisations denotes the strength and overall health that supports various initiatives for corporate sustainability. Corporate vitality encompasses the dynamic and resilient characteristics of organisations that enable them to adapt, thrive, and maintain a competitive advantage in changing business environments.

Corporate vitality help firms to innovate, grow and effectively manage internal and external challenges while maintaining enduring viability and relevance (Hambrick & D'Aveni, 1988). The notion of corporate vitality offers a significant framework for understanding business operations and their adaptability to environmental challenges. It relates to organisations that possess the attributes and characteristics essential for future success.

Corporate vitality can be thought of as a multifaceted concepts, and measured in terms of growth, responsiveness and customer satisfaction. Growth describes the health a firm in terms of size, market share, capitalization, total subsidiaries, workforce, branch networks, and overseas

subsidiaries (Stoner et al., 2013). An upward trend in these variables indicate organisational progress. Growth may also signify increase in sales, earnings, return on investment, return on assets and productivity (Hanaysha, 2016). Keh et al. (2016) define growth as a holistic improvement in a company's performance or productivity in terms of sales volume, profitability, asset expansion and book value. An organisation is considered to be expanding when there is an augmentation in these characteristics (Keh et al., 2016).

Responsiveness is the ability of a firm to respond to customers' needs in terms of quality, speed and flexibility; as well as the firm's competitive ability respond consumers' demand and changing market conditions in real time (Nwulu & Ateke, 2018). It denotes the ability of service providers to aid clients and offer timely service. Shukri et al. (2020) argue that responsiveness involve willingness to aid clients and provide prompt service. Responsive firms have the ability to swiftly address client demands or market changes consistently, while simultaneously establishing or sustaining a competitive advantage (Rojagopal et al., 2016).

Customer satisfaction represent customers' perceived value as a result of consuming a product; as influenced by ideal, expected and promised standards, as well as perceived value of competitor's offerings (Agarwal et al., 2007, as cited in Amangala & Ateke, 2018). Ismail and Yunan (2016) contend that the concept of satisfaction has recently attracted heightened attention from researchers and managers.

The principal aim of every organisation is to optimize earnings while reducing expenses; a crucial factor in enhancing sales is customer satisfaction, since it promotes customer loyalty, referrals, and repeat transactions (Wilson et al., 2008). Marketing philosophy compel firms to focus on customers by offering services in conjunction with their needs (Armano, 2009).

Reverse Logistics and Corporate Vitality

Reverse logistics has garnered significant attention in recent years due to its implications for sustainability, efficiency and competitiveness. The link between reverse logistics and corporate vitality - defined as a company's ability to adapt, innovate and maintain competitive advantages - has become increasingly relevant in contemporary business discourse.

Govindan et al. (2015) highlights that reverse logistics significantly impacts corporate vitality by enhancing operational efficiency. Organizations that effectively implement reverse logistics systems achieve better inventory management, leading to lower holding costs and improved cash flow. This operational efficiency contributes to the overall agility of a firm, allowing it to respond quickly to market changes and customer demands.

Zhao et al. (2018) emphasizes the role of reverse logistics in promoting sustainable practices; and indicates that companies integrating reverse logistics into their supply chain operations not only reduce environmental impact but also improve their brand reputation. Enhanced brand image leads to increased customer loyalty and market share, and reinforces corporate vitality as firms become more attractive to consumers that prioritize sustainability.

A meta-analysis conducted by Mena et al. (2013) reveals that firms that adopt reverse logistics practices are more likely to innovate in product design and service delivery. The ability to reclaim value from returned products often leads companies to rethink their product lifecycle strategies,

thus fostering innovation. This cycle of continuous improvement in products and processes contributes to firm's vitality, ensuring its relevance in the competitive marketplace.

Yang et al. (2020) explored the relationship between reverse logistics and corporate social responsibility (CSR). The study found that organizations that prioritize reverse logistics not only enhance their CSR initiatives but also see a positive impact on their corporate vitality. The integration of reverse logistics into CSR strategies help companies differentiate themselves in the market, foster customer loyalty and enhance long-term viability.

In addition, Rogers and Tibben-Lembke (2001) suggest that companies with robust reverse logistics capabilities experience significant decrease in waste and an increase in resource recovery. This not only contributes to environmental sustainability but also reduces costs associated with waste disposal. Such economic advantages are critical for corporate vitality, as they allow firms to allocate resources more effectively and invest in growth opportunities.

Ho₁: There is no significant relationship between reverse logistics and growth of road construction companies in Rivers State.

Ho₂: There is no significant relationship between reverse logistics and responsiveness of road construction companies in Rivers State.

Ho₃: There is no significant relationship between reverse logistics and customer satisfaction of road construction companies in Rivers State.

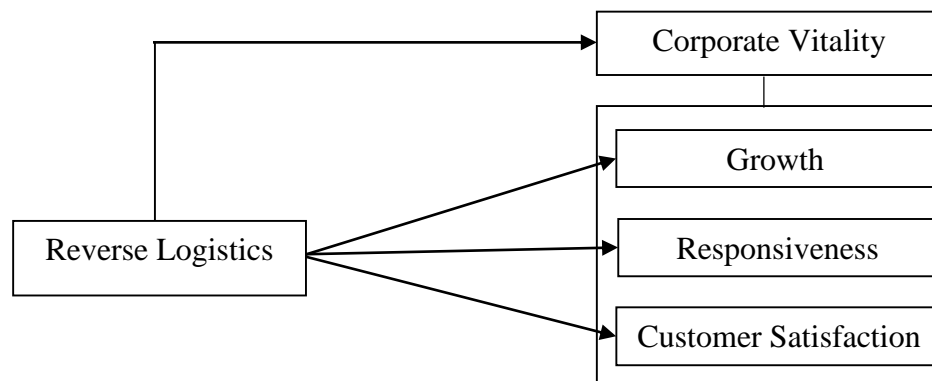


Fig. 1: Conceptual framework of relationship between reverse logistics and corporate vitality

Methodology

This study examined the association between reverse logistics and corporate vitality of road building enterprises in Rivers State. The employed a correlational research design, and was conducted in a natural setting. The study population consisted 18 functional construction companies in Rivers State, listed on finelib.com Nigerian Directory and Search Engine (2021). This study employed a census method. A structured questionnaire was used to collect primary data. The validity of the questionnaire was determined by presenting it subject specialists and practitioners. These person confirmed that the items in the questionnaire align with the study variables. 3 copies of the questionnaire were distributed to Site Manager, Logistics Manager, and Supervisors of the construction companies. The data collected was analysed to determine the correlation between reverse logistics and indices of corporate vitality using Pearson Product Moment Correlation. The statistical analyses was conducted using the Statistical Package for

Social Sciences (SPSS) version 23.0. This version can convert scaled data into discrete or continuous data and vice versa.

Data Analysis and Results

Table 1: Correlations between Reverse Logistics and Growth

		Reverse Logistics	Growth
Reverse Logistics	Pearson Correlation	1	.510**
	Sig. (2-tailed)		.000
	N	49	49
Growth	Pearson Correlation	.510**	1
	Sig. (2-tailed)	.000	
	N	49	49

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

Source: SPSS Output, 2024.

Table 1 reveals a correlation coefficient of 0.510** between reverse logistics and growth. The P(r) value indicates a moderate positive relationship between reverse logistics and growth. The probability value of 0.000 produced by the test is less than the critical value of 0.05; suggesting that the relationship between reverse logistics and growth is statistically significant. This means that reverse logistics can be relied upon to cause organizational growth among road construction companies in Rivers State. Based on these facts, we reject the null hypothesis which denies the existence no significant relationship between reverse logistics and growth of road construction companies in Rivers State.

Table 2: Correlations between Reverse Logistics and Responsiveness

		Reverse Logistics	Responsiveness
Reverse Logistics	Pearson Correlation	1	.507**
	Sig. (2-tailed)		.000
	N	49	49
Responsiveness	Pearson Correlation	.507**	1
	Sig. (2-tailed)	.000	
	N	49	49

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

Source: SPSS Output, 2024.

Table 2 reveals a correlation coefficient of 0.507** between reverse logistics and responsiveness. This coefficient indicates a moderate positive relationship between reverse logistics and responsiveness. The probability value (0.000) is less than the critical value (0.05). This means that shows that the relationship between reverse logistics and responsiveness is statistically significant. The implication of this results is that reverse logistics can be leveraged to achieve responsiveness among road construction companies in Rivers State. Therefore, we reject the null hypothesis which states that there is no significant relationship between reverse logistics and responsiveness of road construction companies in Rivers State.

Table 3: Correlations between Reverse Logistics and Client Satisfaction

		Reverse Logistics	Customer Satisfaction
Reverse Logistics	Pearson Correlation	1	.832**
	Sig. (2-tailed)		.000
	N	49	49
Customer Satisfaction	Pearson Correlation	.832**	1
	Sig. (2-tailed)	.000	
	N	49	49

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

Source: SPSS Output, 2024.

Table 3 reveals a correlation coefficient of 0.832** between reverse logistics and customer satisfaction, indicating a very strong positive relationship between reverse logistics and client satisfaction. More so, the probability value (0.000) is less than the critical value (0.05), this shows that there is a statistically significant relationship between reverse logistics and customer satisfaction. This implies that road construction companies in Rivers State can leverage reverse logistics to deliver customer satisfaction. Based on facts, we reject the null hypothesis. Therefore, there is a significant relationship between reverse logistics and customer satisfaction of road construction companies in Rivers State.

Conclusion and Recommendations

This research examined the relationship between reverse logistics and corporate vitality of road construction firms in Rivers State. The results of the analyses conducted, showed that reverse logistics associates with corporate vitality of road construction enterprises in Rivers State. Based on the results obtained, the study concluded that reverse logistics is essential to corporate vitality of road construction firms in Rivers State, as it influences growth, responsiveness and customer satisfaction. Therefore, the study recommends that managers of road construction companies in Rivers State that aspire to achieve improved corporate vitality that manifests in growth, responsiveness and customer satisfaction should adopt reverse logistics not just as an operational necessity, but as a strategic posture.

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