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ROUTE PLANNING STRATEGIES AND MARKET SHARE GROWTH OF MARITIME BUSINESS IN PORT HARCOURT

Dr Tutah Tonye Chukundah[1] Dr Adokiye Precious Charles[2] & Dr. Patrick Nwuche[3]
Ignatius Ajuru University of Education, Rumuolumini, Port Harcourt[1&3]
tutah.chukundah@iaue.edu.ng[1] adokiyecharles@yahoo.co.uk[2] patrick.nwuche@iaue.edu.ng[3]

Abstract

Our study on route planning strategies and market share growth of maritime business adopted the correlational research design. The population of the study comprised of thirty-six (36) registered maritime firms in Port Harcourt, and census approach was adopted. focused on operations, logistics, marketing, fleet, and strategic planning managers. Questionnaire was the major instrument for data collection, validated by two research experts in the Department of Marketing, Ignatius Ajuru University of Education, with reliability index of 0.84 using Cronbach's alpha calculation method. A total of one hundred and eighty (180) copies of the questionnaire were administered respondents, and data collected was analyzed using descriptive and inferential statistics. Pearson Product Moment Correlation (PPMC) was used to test the various hypotheses formulated, with the aid statistical package for social sciences (SPSS) version 27. The study revealed that efficient cargo handling practices, can enhance operational performance, customer satisfaction, and partnership for maritime businesses, and lead time through efficient route planning can enhance competitiveness, customer relationships, and increased revenue for maritime businesses. The study concluded that route planning strategies has significant influence on market share growth of maritime businesses. That there is significant relationships between cargo handling and partnership, lead time and increased revenue, The results suggest that efficient cargo handling, reduced lead time, through strategic route planning enhancing operational performance, customer satisfaction, competitiveness, and business outcomes for maritime businesses. Consequently, the study strongly recommended that maritime businesses should prioritize efficient cargo handling, efficient lead time through strategic route planning and optimization. Maritime management should invest in technology and infrastructure to enhance cargo handling, optimize routes, and improve scheduling to boost competitiveness and business outcomes.

Key words: Route planning, strategies, cargo handling, lead time, Partnership, Increased revenue, Maritime

INTRODUCTION

Our garden city Port Harcourt, in Rivers State occupies a strategic position in Nigeria's maritime economy due to its coastal access and its location within the oil-rich Niger Delta. Historically, the city developed as a colonial port and later expanded alongside Nigeria's petroleum industry, becoming a major hub for export trade and offshore logistics. Badejo (2012) and Ndikom (2013) observed that port development in Nigeria has consistently influenced regional economic performance and trade integration. The maritime sector in Port Harcourt operates within a dynamic national framework characterized by fluctuating oil revenues, import dependency, and infrastructural challenges. These realities have intensified competition among maritime businesses seeking to secure cargo volumes and sustain profitability. Within this environment, operational efficiency becomes central to business survival, and route planning assumes strategic importance. Route planning in maritime operations involves determining optimal navigational paths, scheduling vessel movements, and coordinating cargo distribution channels in ways that reduce cost and enhance reliability. In a port city where economic vitality depends heavily on shipping performance, examining how navigational decisions shape commercial outcomes provides a necessary foundation for understanding market expansion in the maritime industry.

The Nigerian maritime environment has undergone significant reforms and structural adjustments over the past two decades, reshaping competitive dynamics within port cities such as Port Harcourt. Oyesiku (2002) emphasizes that transportation systems are critical drivers of economic development, particularly in emerging economies where logistics inefficiencies can constrain growth. Similarly, Ndikom (2013) argues that effective shipping management practices directly influence service delivery standards and customer satisfaction. In the Niger Delta context, maritime operators must contend with channel limitations, weather variability, security concerns, and multimodal transport bottlenecks. These factors increase operational uncertainty and underscore the importance of deliberate route planning strategies. By carefully mapping shipping corridors and coordinating vessel deployment, maritime firms can minimize transit delays, reduce fuel consumption, and enhance safety performance. Adeniyi (2014) further notes that logistics optimization contributes significantly to competitive positioning, especially where multiple firms operate within the same port environment.

Market share growth in the maritime businesses of Port Harcourt is closely linked to how effectively firms align operational strategies with evolving market demands. According to Badejo (2012), port competitiveness in Nigeria depends largely on cost efficiency, timeliness, and service quality—factors directly influenced by navigational and scheduling decisions. Ndikom (2013) further maintains that shipping companies that strategically manage vessel routing and cargo coordination tend to secure stronger client relationships and higher cargo patronage. In a competitive maritime corridor where businesses vie for limited cargo flows, as gaining a larger share of the market requires more than physical presence; it demands operational excellence and adaptive planning. Efficient route planning enhances turnaround time, strengthens reliability, and builds customer confidence, which in turn fosters repeat transactions and positive industry reputation. Moreover, as Nigeria seeks to deepen its participation in regional and global trade networks, ports like Port Harcourt must demonstrate improved performance standards to attract sustained commercial activity. Therefore, understanding the background to route planning and market share growth involves situating maritime enterprises within Nigeria's broader economic structure, infrastructural realities, and competitive trade environment. This study is anchored on the premise that strategic navigational planning plays a vital role in shaping the commercial expansion and sustained growth of maritime businesses in Port Harcourt.

Statement of the Problem

Maritime businesses in Port Harcourt operate in an environment that is both strategically advantageous and operationally challenging. Despite the city's coastal location and its historical role as a commercial gateway within the Niger Delta, many maritime firms continue to struggle with sustaining consistent growth in market share. Competition among shipping companies, freight forwarders, and logistics operators has intensified, while fluctuations in cargo volumes—often influenced by oil price volatility and import dependency—have increased uncertainty. In such a climate, route planning becomes a crucial managerial responsibility because it determines how efficiently vessels and cargo move across waterways and into hinterland markets. However, anecdotal evidence and operational observations suggest that many maritime operators face persistent issues such as delays, high fuel costs, irregular scheduling, and exposure to navigational risks. These inefficiencies may undermine customer confidence and limit the ability of firms to expand their client base. The problem, therefore, lies in the apparent gap between the strategic importance of route planning and the inconsistent commercial outcomes experienced by maritime businesses in Port Harcourt.

Furthermore, the infrastructural and environmental realities of the Niger Delta waterways complicate maritime operations. Channel congestion, draft limitations, unpredictable weather patterns, and security concerns create uncertainties that demand careful and adaptive planning. While some firms attempt to respond to these challenges through ad hoc operational adjustments, there is limited empirical clarity on whether structured route planning practices significantly translate into

measurable growth in market share. Many businesses appear to focus primarily on short-term survival rather than long-term strategic optimization of their navigational networks. As a result, operational costs remain high and service reliability sometimes falls below customer expectations. In a competitive port environment where clients have alternative shipping corridors within Nigeria and neighboring West African countries, even minor inefficiencies can influence cargo diversion decisions. The inability of maritime businesses to consistently integrate efficient routing decisions with broader commercial strategies may therefore restrict their capacity to attract and retain customers. This raises concerns about whether current operational approaches adequately support sustained competitive advantage in Port Harcourt maritime industry.

The core problem this study seeks to address is the insufficient understanding of how route planning practices influence market share growth among maritime businesses in Port Harcourt. Although route planning is widely acknowledged as essential for operational efficiency, there remains uncertainty regarding its direct contribution to competitive positioning and business expansion within the local context. Without clear evidence linking navigational planning to market performance, firms may underinvest in strategic logistics optimization or fail to prioritize systematic improvements in routing processes. This knowledge gap limits informed managerial decision-making and may contribute to stagnant or inconsistent growth patterns within the industry. Consequently, there is a pressing need to critically examine the relationship between route planning and market share growth in order to provide context-specific insights that reflect the realities of Port Harcourt maritime operations. Addressing this problem will not only enhance scholarly understanding but also support practical interventions aimed at strengthening the competitiveness and sustainability of maritime businesses in the region.

Conceptual Framework

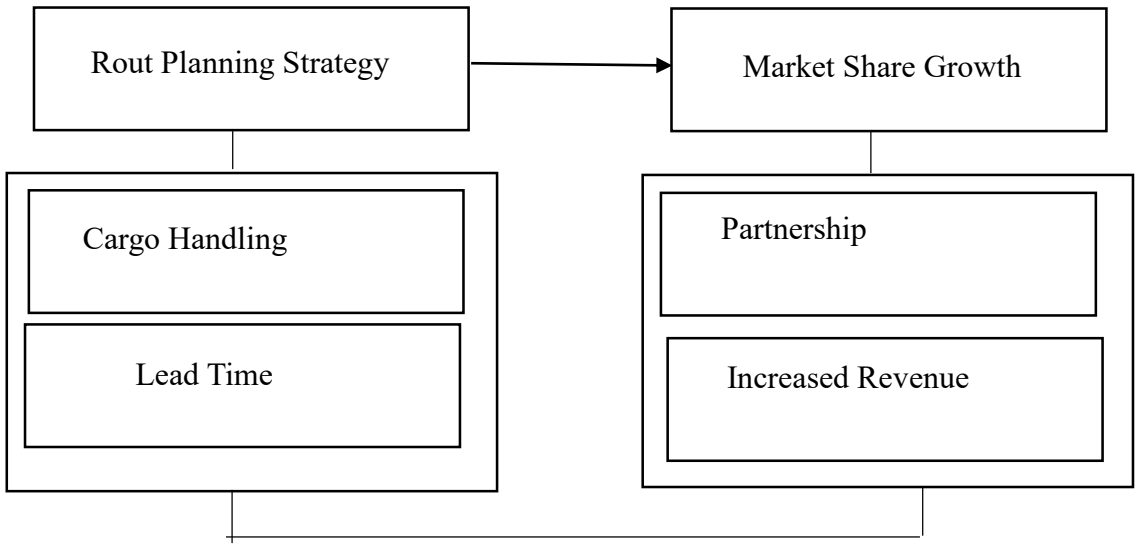

Figure 1: Conceptual frame work showing the relationship between rout planning strategy and market share growth of maritime business in Port Harcourt.

Source: Ndikom (2013)

Aim and Objectives of the Study

The study is aimed at investigating the relationship between route planning strategy and market share growth of maritime business in Port Harcourt. The specific objectives are to:

I. Investigate the relationship between cargo handling and partnership of maritime business in Port Harcourt.
II. Investigate the relationship between lead time and increased revenue of maritime business in Port Harcourt

Research Questions

The following questions guided the study

I. What is the relationship between cargo handling and partnership of maritime business in Port Harcourt?
II. What is the relationship between lead time and increased revenue of maritime business in Port Harcourt?

Research Hypotheses

I. There is no significant relationship between cargo handling and partnership of maritime business in Port Harcourt.
II. There is no significant relationship between lead time and increased revenue of maritime business in Port Harcourt

REVIEW OF RELATED LITERATURE

Conceptual Review

Concept of Route Planning Strategy

Route planning has increasingly become a central concern in the management of transportation and logistics systems in Nigeria, particularly within the maritime, road haulage, and urban distribution sectors. As commercial activities expand in port cities such as Port Harcourt, Lagos, and Warri, the movement of goods and services has grown more complex, demanding systematic coordination of routes to reduce delays, costs, and operational risks. Nigerian scholars have observed that inefficiencies in transportation networks such as traffic congestion, poor road infrastructure, insecurity, and regulatory bottlenecks often undermine the performance of logistics-dependent businesses (Oni, 2012; Adeniran & Yusuf, 2018). In maritime environments, especially around port corridors, uncoordinated vehicle movements and weak traffic management systems frequently lead to gridlocks that disrupt supply chains and reduce firm competitiveness. Consequently, firms are increasingly recognizing that effective planning of routes is not merely an operational task but a strategic function that directly influences service delivery speed, fuel consumption, fleet utilization, and overall market performance. In developing economies like Nigeria, where infrastructural limitations persist, the ability of a firm to intelligently design and manage its transport routes can determine whether it survives or exits the market. This explains why contemporary logistics discourse within Nigerian academia emphasizes route optimization, network design, and transport scheduling as instruments for improving productivity and enhancing customer satisfaction (Aderamo, 2010; Oyesiku, 2013).

Route planning may be defined as the systematic process of determining the most efficient, cost-effective, safe, and timely paths for the movement of goods, services, or passengers from one location to another, taking into account distance, traffic conditions, cargo handling. Lead time, delivery priorities, fuel consumption, security concerns, and infrastructural constraints. It involves the selection and sequencing of stops, allocation of vehicles, scheduling of departures and arrivals, and continuous monitoring to ensure optimal performance. According to Oyesiku (2013), transportation planning in Nigeria must integrate spatial analysis, demand forecasting, and network assessment to achieve efficiency in mobility systems. In the context of logistics and maritime distribution, route planning extends beyond simply choosing a road; it includes decisions regarding port access roads, warehouse linkages, intermodal connections, and last-mile delivery structures. Adeniran and Yusuf (2018) argue that effective route planning reduces operational wastage and enhances turnaround time, particularly in port-based economies where congestion can significantly

increase demurrage and holding costs. Modern route planning also incorporates digital technologies such as Global Positioning Systems (GPS), Geographic Information Systems (GIS), and fleet management software, which enable real-time tracking and adaptive decision-making. However, in Nigeria, the adoption of these technologies remains uneven due to cost constraints, limited technical expertise, and inconsistent power supply. Despite these challenges, route planning remains a managerial function that integrates analytical decision-making with contextual awareness of local transport realities. Aderamo (2010) notes that transport inefficiencies in Nigeria are closely linked to inadequate infrastructural maintenance and poor urban planning, factors which complicate route optimization efforts. In port cities such as Lagos and Port Harcourt, traffic congestion along access corridors significantly affects logistics firms, making route diversification and time-based scheduling essential survival strategies. Furthermore, route planning contributes to sustainability objectives by minimizing fuel consumption and reducing carbon emissions, which aligns with emerging environmental consciousness in Nigeria's transportation sector (Oni, 2012). For maritime and logistics firms, carefully designed routes enhance cargo handling, prompt delivery and reliability, which strengthen customer trust, and support market share growth by ensuring consistent service delivery.

Dimensions of Route Planning Strategy

Cargo Handling

Cargo handling is a critical operational function within the transportation and logistics industry, particularly in maritime economies where ports serve as major gateways for international trade. It encompasses the physical movement, loading, unloading, storage, and transfer of goods across different modes of transport, including ships, trucks, rail systems, and warehouses. In Nigerian port environments such as Lagos and Port Harcourt, cargo handling activities directly influence turnaround time, vessel productivity, and overall supply chain efficiency. While efficient cargo handling builds strong partnership, it promotes faster turnaround, builds trust with partners and customers. Oyesiku (2013) argued that inefficiencies in cargo handling operations significantly contribute to congestion, delays, and increased logistics costs in Nigerian ports. Given that Nigeria depends heavily on imports and exports for economic stability, the effectiveness of cargo handling systems plays a central role in national economic performance. When properly managed, cargo handling enhances trade facilitation, reduces demurrage charges, and improves customer satisfaction. Satisfied customers serve as advocates and partner with the maritime firm; despite challenges such as inadequate equipment, limited automation, poor infrastructure, and bureaucratic bottlenecks that affect operational standards in Nigerian terminals (Adeniran & Yusuf, 2018).

Cargo handling remains the systematic process of transferring goods safely and efficiently between transport modes and storage facilities, using specialized equipment, skilled labour, and standardized procedures to ensure minimal damage, accurate documentation, and timely delivery. It involves activities such as stevedoring, crane operations, container stacking, warehousing, packaging, labeling, and inventory control. In maritime contexts, cargo handling begins when goods arrive at the port and continues until they are successfully dispatched to their final destinations. According to Aderamo (2010), efficient cargo handling requires coordination between terminal operators, shipping companies, customs authorities, freight forwarders, and transport providers. The process varies depending on the type of cargo involved—bulk cargo, containerized goods, liquid cargo, or break-bulk shipments—each requiring specific equipment and safety protocols. Modern cargo handling increasingly relies on mechanized systems such as gantry cranes, forklifts, conveyor belts, and automated tracking technologies to enhance speed and precision. In Nigeria, port reforms and privatization efforts have introduced improved terminal management systems, yet operational gaps still remain in comparison to global best practices.

In a broader developmental context, cargo handling is not merely an operational activity but a strategic determinant of competitiveness within the maritime and logistics sector. Efficient cargo handling reduces vessel dwell time, improves port throughput, and strengthens Nigeria's position in

regional and global trade networks. Oni (2012) emphasizes that improved cargo management systems contribute to cost reduction, revenue generation, and investor confidence in the maritime industry. Furthermore, effective cargo handling promotes safety by minimizing accidents, cargo damage, and environmental hazards, particularly in the handling of hazardous or perishable goods. Sustainable cargo handling practices, including the adoption of green port initiatives and digital tracking systems, are gradually emerging as priorities in the sector. Therefore, cargo handling remains a fundamental pillar of logistics performance, economic growth, and supply chain reliability in Nigeria's transportation landscape.

Lead Time

Lead time is a fundamental concept in operations management, logistics, and supply chain administration, particularly in developing economies like Nigeria where infrastructural and administrative challenges often influence delivery schedules. It refers to the total time that elapses between the initiation of a process and its completion, the difference in time between when an order is placed and its arrival. In business and maritime operations, lead time determines how quickly a firm can respond to customer orders, replenish inventory, or deliver cargo from origin to destination, which if properly organized improves returns and the business revenue base. No doubt, prolonged lead time is one of the major contributors to high operational costs and reduced competitiveness in the transport and port sectors (Oni, 2012; Oyesiku, 2013). In environments such as Lagos and Port Harcourt ports, factors like congestion, customs delays, documentation bottlenecks, and poor road networks often extend lead times beyond expected schedules. As a result, firms must strategically manage and monitor lead time to ensure reliability, customer satisfaction, and sustained market performance.

Lead time has been defined as the total duration between the placement of an order or initiation of a request and the final delivery or completion of the required service or product. It includes processing time, waiting time, transportation time, inspection time, and any potential delay within the system. According to Aderamo (2010), efficient transportation systems are essential for reducing unnecessary delays that extend operational cycles. In logistics and maritime contexts, lead time covers activities such as order processing, cargo handling, customs clearance, shipping transit, and final distribution to customers. It can be categorized into production lead time, procurement lead time, and delivery lead time, depending on the stage being measured. Effective and efficient management of lead time requires accurate demand forecasting, proper route planning, adequate cargo handling facilities, and coordination among supply chain actors. In technologically advanced systems, digital tracking and automated documentation significantly reduce uncertainty in lead time calculations. No doubt, managing lead time presents unique challenges due to infrastructural deficits, regulatory procedures, and security concerns along transport corridors. Adeniran and Yusuf (2018) argue that delays at ports significantly increase demurrage charges and reduce supply chain efficiency, thereby affecting firm profitability. Long lead times may result in stockouts, production interruptions, and loss of customer trust. Conversely, reduced and predictable lead times enhance inventory control, improve planning accuracy, and strengthen competitive advantage. Investors and regulators increasingly view lead time performance as an indicator of operational efficiency within the maritime and logistics sectors. Therefore, minimizing lead time is not merely an operational objective but a strategic imperative that influences cost management, service quality, and overall economic productivity in Nigeria's transportation and trade systems.

The Concept of Market Share Growth

Market share growth is widely regarded as a key indicator of competitive strength and long-term sustainability in business, yet its meaning and implications are often oversimplified in managerial discourse. In the Nigerian context, where markets are characterized by infrastructural challenges, regulatory instability, fluctuating consumer purchasing power, and intense rivalry, market share growth cannot merely be interpreted as an increase in sales volume. Rather, it reflects a firm's ability

to outperform competitors within a defined market segment over time. Aremu and Lawal (2012) argued that market share in emerging economies is influenced not only by marketing strategy but also by environmental factors such as distribution efficiency, access to finance, and institutional quality. In sectors like maritime transport, fast-moving consumer goods, and telecommunications, Nigerian firms often pursue aggressive expansion strategies aimed at capturing larger portions of the market, sometimes at the expense of profitability. This raises critical concerns about whether market share growth always translates into sustainable financial performance. While classical competitive theory suggests that increased market share leads to economies of scale and cost advantages, practical realities in Nigeria show that rapid expansion without operational efficiency may instead increase overhead costs and expose firms to systemic risks. Therefore, market share growth must be examined beyond numerical increase and situated within the broader structural and economic conditions that shape Nigerian markets.

Market share growth may be defined as the measurable increase in a firm's proportion of total industry sales or customer base within a specified period, relative to competitors operating in the same market. It is usually expressed as a percentage and serves as an indicator of competitive positioning and brand strength. According to Olaniyi (2011), market share reflects consumer preference, distribution effectiveness, pricing strategy, and promotional efficiency. In theory, a growing market share suggests that a firm is successfully attracting new customers or retaining existing ones more effectively than its rivals. However, in Nigeria's volatile business environment, this growth may be influenced by temporary factors such as competitor exit, government policy shifts, or currency fluctuations rather than intrinsic firm strength. For example, in port-based industries, improvements in route planning, cargo handling efficiency, and service reliability may increase a firm's customer base, thereby boosting market share. Yet, as Ojo (2014) observes, sustainable growth requires balancing expansion with cost control, service quality, and operational resilience. Market share growth should therefore be interpreted alongside profitability, customer satisfaction, and asset utilization to provide a more holistic evaluation of business performance.

Interestingly, market share growth presents both opportunities and strategic dilemmas for Nigerian firms. On one hand, increasing market share enhances brand visibility, bargaining power, and investor confidence. Larger firms may benefit from economies of scale, improved supplier negotiations, and stronger distribution networks. On the other hand, excessive focus on market share can lead to price wars, declining margins, and compromised service quality. Aremu and Lawal (2012) caution that in highly competitive Nigerian industries, firms sometimes adopt unsustainable pricing strategies simply to crowd out competitors, thereby weakening overall industry stability. Furthermore, market share growth in a shrinking economy does not necessarily indicate real expansion; it may simply reflect redistribution of a stagnant or declining demand base. Scholars have increasingly advocated for a balanced performance approach in which market share growth is integrated with profitability, service reliability, innovation capacity, and long-term strategic planning (Olaniyi, 2011; Ojo, 2014). In all, while market share growth remains a vital measure of competitive success, its true value lies not in numerical dominance but in sustainable expansion supported by operational excellence, strategic discipline, and responsiveness to Nigeria's complex business environment.

Measures of Market Share Growth

Partnership

Partnership is a significant organizational and strategic arrangement in business practice, particularly within Nigeria's evolving economic landscape where collaboration often determines survival and growth. In sectors such as maritime transport, logistics, oil and gas, retail, and small-scale enterprises, partnership arrangements enable firms to combine financial resources, technical expertise, and market access in order to overcome structural and environmental constraints. Aremu and Lawal (2012) observed that partnerships have become increasingly relevant in emerging markets where individual firms may lack sufficient capital, infrastructure, or managerial capacity to

operate competitively on their own. In port-based economies like Lagos and Port Harcourt, partnerships between terminal operators, freight forwarders, transport companies, and shipping agents often enhance service delivery efficiency and reduce operational bottlenecks. However, despite their advantages, partnerships in Nigeria are sometimes weakened by inadequate legal documentation, mistrust, poor governance structures, and unclear profit-sharing arrangements, which can lead to disputes and business instability.

Partnership may be defined as a voluntary business relationship between two or more persons or entities who agree to contribute resources—such as capital, skills, labour, or networks—towards the establishment and management of a profit-oriented enterprise, with the understanding that profits and losses will be shared according to agreed terms. In the maritime and logistics sectors, partnership arrangements often extend beyond legal ownership structures to include operational collaborations such as joint ventures, service agreements, and public-private partnerships. Adeniran and Yusuf (2018) argue that such collaborative arrangements are essential in enhancing operational efficiency, sharing risk, and expanding market reach in competitive industries. Effective partnership management requires clear contractual terms, transparency, accountability, and shared strategic vision, as customer in addition to serving as advocate of the maritime firm, partner to its growth and sustainability.

Partnership offers both opportunities and structural challenges within Nigeria's business environment. On the positive side, partnerships enable risk sharing, access to diversified expertise, improved innovation capacity, and enhanced market penetration. They can strengthen competitiveness by combining complementary strengths, particularly in capital-intensive industries like maritime transport where investment requirements are high. Ojo (2014) emphasizes that strategic alliances and partnerships can enhance revenue generation and operational performance when supported by strong governance mechanisms. However, partnerships may also generate conflicts arising from unequal commitment, misaligned objectives, or poor communication. In Nigeria, weak enforcement of contractual agreements and limited dispute resolution mechanisms sometimes discourage long-term partnership stability. Furthermore, informal partnership arrangements without proper legal registration expose partners to unlimited liability and financial risk. Therefore, while partnership remains a powerful instrument for business expansion and sustainability, its success depends on mutual trust, sound legal frameworks, effective leadership, and structured management systems. In the Nigerian context, carefully designed and professionally managed partnerships can significantly contribute to market share growth, operational resilience, and long-term economic development.

Increased Revenue

Increased revenue is commonly viewed as a primary objective of business organizations, yet in practice it represents more than just a rise in monetary inflows. In sectors such as maritime transport, logistics, manufacturing, and retail revenue growth often reflects a combination of strategic positioning, operational efficiency, and responsiveness to market conditions. Aremu and Lawal (2012) argued that in emerging economies, revenue expansion is strongly influenced by distribution effectiveness, pricing structures, and the ability to overcome infrastructural constraints. In port-based industries, for example, improved cargo handling efficiency, reduced lead time, and enhanced service reliability can attract more customers and increase transaction volumes, thereby driving revenue upward. However, the Nigerian context also demonstrates that revenue increases can sometimes be nominal rather than real, especially during periods of inflation or currency depreciation. This makes it necessary to distinguish between growth driven by higher sales volume and growth resulting from price adjustments due to macroeconomic instability.

Increased revenue may be defined as a sustained rise in the total income generated by a firm from its core business operations over a specified accounting period. It is typically derived from sales of goods or services and does not automatically equate to increased profit, since operational costs, taxes, and overhead expenses must be deducted to determine net earnings. According to Olaniyi

(2011), revenue growth is often used as an indicator of market acceptance, customer demand, and competitive strength. In the maritime and logistics sectors, revenue may increase through higher efficient lead time, cargo volume, expanded service routes, improved turnaround time, or strategic partnerships. Nevertheless, Adeniran and Yusuf (2018) note that without cost efficiency and effective resource management, revenue growth may be offset by rising operational expenditures such as fuel costs, port charges, maintenance expenses, and labour wages. Therefore, while increased revenue signals expansion, it must be evaluated in relation to profitability, asset utilization, and return on investment to provide a realistic picture of financial health.

Interestingly, increased revenue presents both opportunities and managerial challenges within Nigeria's dynamic economic landscape. On one hand, revenue growth enhances investor confidence, improves liquidity, and strengthens a firm's capacity for reinvestment and expansion. It may enable companies to acquire modern equipment, adopt new technologies, and improve service delivery standards. On the other hand, rapid revenue expansion without adequate structural support can strain operational systems, leading to service inefficiencies and reputational risks. Ojo (2014) emphasizes that sustainable revenue growth depends on strategic planning, effective cost control, and consistent service quality rather than short-term sales increases. Furthermore, in volatile markets like Nigeria, revenue fluctuations may result from external factors such as government policy shifts, exchange rate volatility, or global trade disruptions. As a result, firms must adopt a balanced performance approach that integrates revenue growth with profitability, operational resilience, and customer satisfaction. No doubt, increased revenue is an important measure of business success, but its true value lies in its sustainability, quality, and contribution to long-term organizational stability within Nigeria's complex economic environment.

Theoretical Review

Competitive Advantage Theory

Michael Porter's competitive advantage theory remains one of the most influential frameworks in strategic management, particularly in explaining how firms achieve superior performance within competitive industries. Developed in the 1980s, the theory argues that organizations can outperform rivals through two primary generic strategies: cost leadership and differentiation, operating within a defined competitive scope. Porter maintains that firms must deliberately choose a strategic position rather than attempt to pursue multiple incompatible advantages simultaneously. In industries such as maritime transport and logistics, competitive advantage may be achieved by reducing operational costs through efficient route planning, economies of scale, and optimized cargo handling systems, or by differentiating services through reliability, speedy delivery, and customer responsiveness. The theory also connects with Porter's Five Forces model, which analyzes industry structure in terms of rivalry, supplier power, buyer power, threat of substitutes, and barriers to entry. Within the Nigerian maritime environment, where congestion, regulatory bottlenecks, and infrastructural deficits shape competition, Porter's framework provides a structured way to assess how firms can position themselves strategically to secure market share growth. However, while the model offers clarity and analytical simplicity, its practical application in emerging economies raises several critical questions regarding adaptability, contextual limitations, and sustainability.

Quite certainly, Porter's competitive advantage theory has been praised for its systematic approach to strategy formulation but also criticized for its rigidity and static orientation. One major strength of the theory lies in its emphasis on deliberate strategic choice; it discourages firms from being "stuck in the middle," where they fail to achieve either meaningful cost efficiency or strong differentiation. For maritime firms in Nigeria, this clarity can guide decisions such as whether to invest in advanced routing technologies to minimize costs or to focus on premium, time-sensitive logistics services that command higher prices. Another critical limitation of Porter's Competitive Advantage Theory concerns its treatment of cooperation and strategic alliances. The model largely conceptualizes competition as adversarial, emphasizing rivalry and defensive positioning. However, in modern maritime and logistics sectors—especially in developing countries—collaborative

arrangements such as partnerships, joint ventures, and public-private initiatives are often essential for survival and growth. Nigerian port operations frequently involve coordination among shipping companies, terminal operators, customs authorities, and inland transport providers. Competitive advantage in such settings may arise from network integration and cooperative efficiency rather than pure rivalry. Additionally, Porter's cost leadership strategy may encourage aggressive price competition, which in developing markets can lead to reduced service quality and long-term industry instability. Maritime firms that excessively pursue cost minimization may underinvest in safety, maintenance, and employee welfare, ultimately undermining reliability and customer trust. Despite these criticisms, the enduring relevance of Porter's theory lies in its foundational insight: firms must consciously develop a distinct strategic position to achieve superior performance. For Nigerian maritime businesses seeking market share growth, the theory remains a useful starting point for analyzing cost structures, differentiation opportunities, and industry pressures.

Empirical Review

Olatunji, Aderamo, and Adebola (2015), investigated the effect of GIS-based routing on haulage performance across major highways in southwestern Nigeria; using cross-sectional operational data from 72 logistics firms over a 3-year period, they applied a mixed-methods approach that combined spatial analysis with fleet performance metrics, revealing that firms adopting GIS-integrated route planning reported statistically significant reductions in average travel time (27%) and fuel consumption (19%) compared with firms relying on traditional fixed schedules, and noted that dynamic adaptation of routes in response to real-time traffic information enabled drivers to avoid recurrent congestion hotspots such as Lagos–Ibadan and Benin City corridors, thereby enhancing schedule reliability and reducing delivery tardiness; however, the study also documented implementation challenges, including high upfront costs, limited driver familiarity with digital tools, and intermittent power/internet access for real-time updates, which moderated the overall efficiency gains—an insight consistent with global findings that technological route optimization yields robust performance improvements but requires enabling infrastructure and workforce capacity development (García, et al., 2017; Taniguchi, et al., 2019); importantly, Olatunji et al. (2015) further reported that customer satisfaction indices improved concomitantly with operational performance, suggesting that route planning not only reduces logistical costs but also enhances firm competitiveness in highly fragmented freight markets, underscoring the strategic value of integrating sophisticated routing tools within broader supply chain management frameworks; their conclusion—that empirical gains in route optimization are contingent upon institutional support, infrastructure readiness, and ongoing training—has been cited as a pivotal reference point for subsequent Nigerian transport policy proposals and logistics scholarship, reinforcing the view that empirical route planning research must address both technological and contextual constraints in developing economies (Aderamo & Oni, 2018).

Adepoju and Adeloye (2018), examined how real-time traffic and port access data influence delivery reliability and transport costs in maritime logistics operations around the ports of Lagos and Port Harcourt, using longitudinal operational data from six major freight forwarding firms over a two-year period; the researchers employed time-series regression models to assess the relationship between route planning practices—operationalized as the use of adaptive scheduling platforms integrating live traffic feeds—and key performance indicators such as transit time variability, demurrage costs, and on-time delivery rates, finding that firms using real-time data-driven routing approaches achieved a 23% reduction in variability of delivery times and a 17% decline in demurrage penalties compared with counterparts that relied on static routing schedules, with statistically significant coefficients indicating that adaptive routing explains a substantial proportion of performance improvement variance ($p < 0.05$); their qualitative interviews with logistics managers further revealed that the successful implementation of real-time routing systems hinged on partnerships with telematics providers, investment in driver training, and procedural adjustments to dispatch planning, highlighting that technological adoption alone was insufficient without complementary

organizational change; they also observed that infrastructural unpredictability—manifested through unplanned road closures, security checkpoints, and flooding—persistently introduced noise into route planning models, implying that even the best data systems cannot fully compensate for systemic transport network deficiencies; Adepoju and Adeloye (2018) concluded that empirical route planning initiatives must therefore be embedded within broader infrastructure development strategies and multi-stakeholder governance frameworks, a conclusion that aligns with international research on urban freight logistics in developing economies (Crainic et al., 2016; Dablanc & Rakotonarivo, 2010), and underscores the need for integrated data ecosystems to support both inland and port corridor route optimization for sustained performance gains in maritime business contexts.

Yusuf and Adewale (2020), examined route optimization practices among logistics firms operating within the Lagos metropolitan area, where frequent traffic congestion, narrow corridors, and inconsistent traffic management contribute to unpredictable delivery times; using a sample of 88 logistics carriers over a 24-month observational period, the study utilized advanced route planning software integrated with traffic flow sensors and shipment tracking data to measure delivery punctuality, variance in travel time, and frequency of schedule disruptions, finding that firms employing adaptive routing techniques—updated in near real-time with traffic and road condition data—achieved a significant 31% increase in on-time delivery rates compared with carriers that relied on conventional fixed route schedules, and also recorded lower fluctuations in travel time variance, which translated to more predictable and reliable distribution operations; the researchers applied fixed-effects regression models to control for seasonal traffic patterns and delivery distance differences, strengthening causal inferences regarding the direct effect of dynamic route planning on reliability outcomes; moreover, qualitative interviews with dispatch managers revealed that reliability improvements were closely linked to the firm's ability to reroute vehicles around emerging congestion bottlenecks, avoid areas with unplanned roadworks, and time departures to coincide with lower traffic density periods—practices that only became possible after analytics integration and staff training in route planning application; however, Yusuf and Adewale (2020) also identified key barriers to wider adoption, including the high cost of procurement for real-time traffic data feeds, limited cellular coverage in peri-urban areas, and resistance by some drivers who preferred familiar routes despite system advice, indicating that technological potential alone may not guarantee full operational gains; the study's findings align with global urban logistics literature (Crainic et al., 2018; Taniguchi et al., 2014) and highlight that while route planning demonstrably enhances delivery reliability in complex urban environments, sustained performance gains require investment in data infrastructure, human capital, and change management practices—insights particularly salient for contexts like Nigerian city networks where uncertainty and congestion are persistent challenges..

METHODOLOGY

Research Design

This study adopted the correlational research design. The correlation survey design was appropriate because the researchers studied the relationship between route planning strategy and market share growth of maritime firms in Port Harcourt.

Population of the Study

The population of this study comprised of thirty-six (36) registered maritime firms in Port Harcourt. The information was obtained from https://www.medianigeria.com

Sequel to the population of the study which is thirty-six (36) registered maritime firms in Port Harcourt, the study adopted a census approach. The approach enabled the researcher to study the population with a focus on operations manager, logistics manager, marketing manager, fleet manager, and strategic planning managers

Method of Data Collection / Instrumentation
The questionnaire was the instrument for data collection in this study. The questionnaire was designed after reviewing related literature on the subject matter. The responses to the questionnaire items were structured on a 5-pointLikert scale. To generate data for the study, the questionnaire was distributed in the frame of five (5) copies per firm. A total of one hundred and eighty (180) respondents was used as the study subjects.

Validity of the Instrument
The study adopted face and content validity in assessing the extent to which the items or questions included in the instrument represents the full content domain of the concept being measured. The validity of the research instrument was determined by two other research experts in the Department of Marketing, Ignatius Ajuru University of Education. These experts scrutinize the instrument with respect to its relevance to the study variables as well as the language used in developing the instrument or items.

Reliability of the Instrument
Our study adopted Internal Consistency Reliability using Cronbach's alpha calculation method. The Internal consistency reliability measures the extent to which the items or questions within an instrument are measuring the same construct or concept. The Cronbach's alpha calculates the correlation among items in a scale. High internal consistency reliability indicates that the items within the instrument are strongly interrelated. The result was accepted having reliability index of 0.84, considered high enough using the Nunally 1978 benchmark of 0.75.

Administration of Instrument
One hundred and eighty (180) copies of the questionnaire were administered to the firms in Port Harcourt. The researchers through the help of research assistant administered all the copies of the questionnaire.

Methods of Data Analysis
The data that was collected through the questionnaire was analyzed using descriptive and inferential statistics. Pearson Product Moment Correlation (PPMC) was adopted to test the various hypotheses formulated. A criterion mean of 2.50 was set for any item to be accepted or rejected. This means that for any item in the questionnaire to be accepted, it must have a mean response of 2.50 or above. Anything less than 2.50 was rejected. All of these was done using the statistical package for social sciences (SPSS) version 27.

DATA PRESENTATION AND ANALYSIS

Research Question 1: What is the relationship between cargo handling and partnership of maritime business in Port Harcourt?

Table 1: Mean and standard deviation of relationship between cargo handling and partnership of maritime business in Port Harcourt

S/N	Cargo handling	Responses							
	Items	SA	A	UD	D	SD	Mean	Standard deviation	Decision
1	Efficient cargo handling practices have improved our operational performance.	128	20	18	6	8	4.41	1.18	Strongly agree
2	Customers associate with strategic route planning that has reduced cargo congestion,	125	11	6	19	19	4.13	1.01	Agree

	improved loading and discharge efficiency.								
3	Improved cargo handling via optimized routes has enhanced customer satisfaction and support.	110	16	21	12	21	4.01	1.71	Agree
4	Systemic route planning decisions directly influence the speed and safety of cargo handling collaboration.	131	19	17	4	9	4.43	1.11	Strongly agree
5	Effective cargo handling practices have contributed to increased customer satisfaction and partnership.	100	27	13	18	22	3.91	1.12	Agree
Grand mean							**4.18**	**1.23**	Agree

Source: Survey Data, 2026.

Table 1: The table presents the mean and standard deviation of responses on the relationship between cargo handling and partnership of maritime business in Port Harcourt.

Key Findings: - Respondents agree that cargo handling influences partnership (Grand mean = 4.18).

- Efficient cargo handling practices have improved our operational performance. (mean = 4.41)
- Customers associate with strategic route planning that has reduced cargo congestion, improved loading and discharge efficiency. (mean = 4.13)
- Improved cargo handling via optimized routes has enhanced customer satisfaction and support. (mean = 4.01)
- Systemic route planning decisions directly influence the speed and safety of cargo handling collaboration. (mean = 4.43)
- Effective cargo handling practices have contributed to increased customer satisfaction and partnership. (mean = 3.91)

The results suggest that efficient cargo handling practices, supported by strategic route planning, can enhance operational performance, customer satisfaction, and partnership for maritime businesses in Port Harcourt.

Research Question 2: What is the relationship between lead time and increased revenue of maritime business in Port Harcourt?

Table 2: Mean and standard deviation of relationship between lead time and increased revenue of maritime business in Port Harcourt

S/N	Lead Time	Responses							
	Items	SA	A	UD	D	SD	Mean	Standard deviation	Decision
1	Our route planning strategy has significantly reduced cost in cargo delivery time.	119	15	15	7	24	4.1	1.00	Strongly agree
2	Shorter lead time has improved our competitiveness in the maritime market.	109	21	10	18	22	3.98	1.12	Agree
3	Efficient scheduling and routing have increased cargo transportation revenue.	110	31	11	14	14	4.16	1.21	Strongly agree

4	Reduced lead time has strengthened our competitiveness	120	21	22	4	13	4.28	1.14	Strongly agree
5	Lead time efficiency achieved through route planning has increased repeat patronage.	110	16	17	5	32	3.92	1.00	Agree
Grand mean							**4.09**	**1.09**	Agree

Source: Survey Data, 2026.

Table 2: The table presents the mean and standard deviation of responses on the relationship between lead time and increased revenue of maritime business in Port Harcourt.

Key Findings: - Respondents agree that lead time influences increased revenue (Grand mean = 4.09).

- Top factors:
  - Our route planning strategy has significantly reduced cost in cargo delivery time. (mean = 4.1)
  - Shorter lead time has improved our competitiveness in the maritime market. (mean = 3.98
  - Efficient scheduling and routing have increased cargo transportation revenue. (mean = 4.16)
- Reduced lead time has strengthened our competitiveness. (mean = 4.28)
- Lead time efficiency achieved through route planning has increased repeat patronage. (mean = 3.92)

The results suggest that reducing lead time through efficient route planning can enhance competitiveness, reduce cost, and increased revenue for maritime businesses in Port Harcourt.

TEST OF HYPOTHESES

$H0_1$: There is no significant relationship between cargo handling and partnership of maritime business in Port Harcourt.

Table 3 Pearson Product Moment Correlations Analysis between cargo handling and partnership of maritime business in Port Harcourt.

		cargo handling	Partnership
cargo handling	Pearson Correlation	1	778**
	Sig.(2-tailed)		0.000
	N	180	180
Partnership	Pearson Correlation	. 778**	1
	Sig.(2-tailed)	0.000	
	N	180	180

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

Table 3: The table presents the Pearson Product Moment Correlation analysis between cargo handling and partnership of maritime business in Port Harcourt.

Key Findings: - There is a strong positive correlation between cargo handling and partnership (Pearson Correlation = 0.778).

- The correlation is statistically significant at the 0.01 level (Sig. = 0.000).

Given the significant correlation, we reject the null hypothesis ($H0_1$). There is therefore a significant relationship between cargo handling and partnership of maritime business in Port Harcourt

$H0_2$: There is no significant relationship between lead time and increased revenue of maritime business in Port Harcourt

Table 4: Pearson Product Moment Correlations Analysis between lead time and increased revenue of maritime business in Port Harcourt

		lead time	increased revenue
lead time	Pearson Correlation	1	692**
	Sig.(2-tailed)		0.000
	N	180	180
increased revenue	Pearson Correlation	. 692**	1
	Sig.(2-tailed)	0.000	
	N	180	180

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

Table 4; The table presents the Pearson Product Moment Correlation analysis between lead time and increased revenue of maritime business in Port Harcourt.

Key Findings: - There is a moderate to strong positive correlation between lead time and increased revenue (Pearson Correlation = 0.692).

- The correlation is statistically significant at the 0.01 level (Sig. = 0.000).

Given the significant correlation, we reject the null hypothesis ($H0_2$). Hence, there is a significant relationship between lead time and increased revenue of maritime business in Port Harcourt.

Discussion of Findings

The finding of the study was discussed under the following headings:

What is the relationship between cargo handling and partnership of maritime business in Port Harcourt?

The outcome of research question 1 as reflected in Table 1: results revealed that efficient cargo handling practices, supported by strategic route planning, can enhance operational performance, customer satisfaction, and partnership for maritime businesses in Port Harcourt. Similarly, table 4: revealed a significant relationship between cargo handling and partnership of maritime business in Port Harcourt.

The findings of this study corroborate to that of Olatunji, Aderamo, and Adebola (2015), who investigated the effect of GIS based routing on haulage performance across major highways in southwestern Nigeria; using cross sectional operational data from 72 logistics firms over a 3 year period, they applied a mixed methods approach that combined spatial analysis with fleet performance metrics, revealing that firms adopting GIS integrated route planning reported statistically significant reductions in average travel time (27%) and fuel consumption (19%) compared with firms relying on traditional fixed schedules, and noted that dynamic adaptation of routes in response to real time traffic information enabled drivers to avoid recurrent congestion hotspots such as Lagos–Ibadan and Benin City corridors, thereby enhancing schedule reliability and reducing delivery tardiness;

What is the relationship between lead time and increased revenue of maritime business in Port Harcourt?

The outcome of research question 2 as reflected in Table 2: results opined that reducing lead time through efficient route planning can enhance competitiveness, customer relationships, and increased revenue for maritime businesses in Port Harcourt. Likewise, table 4 exposed a significant relationship between lead time and increased revenue of maritime business in Port Harcourt. The findings of this study concord to that of, Adepoju and Adeloye (2018), who examined how real time traffic and port access data influence delivery reliability and transport costs in maritime logistics operations around the ports of Lagos and Port Harcourt.

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary of the Findings

The summary of the findings of this study are as follows:

1. The study revealed that efficient cargo handling practices, supported by strategic route planning, can enhance operational performance, customer satisfaction, and partnership for maritime businesses in Port Harcourt.
2. opined that reducing lead time through efficient route planning can enhance competitiveness, customer relationships, and increased revenue for maritime businesses in Port Harcourt.

Conclusions

This study examined the Route planning strategies and market share growth of maritime businesses in Port Harcourt. The findings revealed significant relationships between cargo handling and partnership, lead time and increased revenue, The results suggest that efficient cargo handling, reduced lead time, through strategic route planning can enhance operational performance, customer satisfaction, competitiveness, and business outcomes for maritime businesses in Port Harcourt.

Recommendations

Based on the findings and conclusions, we recommend the following to maritime businesses:

1. Maritime businesses should prioritize efficient cargo handling, reduce lead time through strategic route planning and optimization that builds stakeholders trust and partnership.
2. Management should invest in technology, training and infrastructure modernization to enhance cargo handling, optimize routes, and improve scheduling to meet international standards, boost competitiveness and business outcomes.

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