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LOGISTICS OPERATION MANAGEMENT AND BUSINESS SUCCESS OF MARITIME FIRMS IN PORT HARCOURT

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ABSTRACT

This study empirically investigate logistic operation management and business success of maritime firms in Port Harcourt the objective of the study was to determine the relationship between logistic operation management and business success of the maritime firms in Port Harcourt. This research question was posed and two [2] research hypotheses were raised to guide the conduct of the study. The population of the study comprised of 110 managers of the maritime firms in Port Harcourt. The correlation research design was adopted for in the study, and spearman rank order correlation was used to test SPSS version 2.0. the result of the study was that there is a significant strong and positive relationship between logistics operation management and business success of maritime firms in Port Harcourt, based on the results, the finding were that, there is a significant strong and positive relationship between materials handlings with profitability growth and markets have growth, we therefore, concluded that there is a strong and positive relationship between operations manufactured and business success of maritime firms in Port Harcourt, we therefore recommended that firms should adopt modern material, handlings technologies to enhance their capacity for manufacturing goods efficiently, which will contribute to both the market share and probity.

Keywords: Logistics Operation, Business Success Logistics Operation And Management And Business Success Of Maritime Firms In Port Harcourt

INTRODUCTION

The study of the relationship between logistics operation management and the business success of maritime firms is a crucial area of focus in the contemporary business environment, particularly in regions with significant maritime activities such as Rivers State, Nigeria. It is a critical factor that influences the performance and competitiveness of firms, especially in the maritime industry, which serves as a backbone for international trade and economic development.

Logistics operation management encompasses the planning, implementation, and control of the efficient movement and storage of goods, services, and information from point of origin to point of consumption. It involves a range of activities including transportation management, warehousing, inventory control, order fulfillment, and supply chain management. Effective logistics management can significantly enhance operational efficiency, reduce costs, and improve customer satisfaction, which are critical factors for the success of maritime firms (Christopher, 2016).

Rivers State, located in the Niger Delta region of Nigeria, is a hub for maritime activities due to its strategic coastal location and the presence of major ports like the Port of Onne and the Port Harcourt Port. These ports facilitate substantial volumes of cargo movement, making efficient logistics operations vital for the success of maritime firms operating in this region. The effectiveness of logistics operation management directly impacts the ability of these firms to deliver services promptly, reduce operational costs, and enhance customer satisfaction, which are essential determinants of business success (Nwabueze & Akpan, 2016).

However, the implementation of advanced logistics practices in Rivers State is not without challenges. Infrastructural deficits, such as poor road networks and inadequate port facilities, pose significant barriers to efficient logistics operations. Additionally, regulatory bottlenecks and security concerns further complicate the logistics landscape. Addressing these challenges requires a

collaborative effort between maritime firms, government agencies, and other stakeholders to create an enabling environment for efficient logistics operations. The development of public-private partnerships and investment in infrastructure are critical steps in this direction.

Business success in the maritime sector can be measured through various indicators such as profitability, market share, operational efficiency, customer satisfaction, and sustainability. Maritime firms that excel in logistics operation management are more likely to achieve superior performance on these indicators, For instance, firms that effectively manage their supply chains can reduce lead times, minimize costs, and enhance service delivery, thereby gaining a competitive edge in the market (Mentzer et al., 2001).

The relationship between logistics operation management and business success in the maritime sector is complex and diverse. Factors such as technological advancements, regulatory frameworks, and human resource capabilities play significant roles in shaping this relationship. Technological innovations, including the use of automated systems and data analytics, have revolutionized logistics operations, enabling firms to achieve higher levels of efficiency and accuracy (Heaver, 2015). Furthermore, the regulatory environment in which maritime firms operate can significantly impact their logistics operations. Compliance with international and national regulations, such as those related to safety, security, and environmental protection, is essential for smooth operations. Non-compliance can lead to disruptions, fines, and damage to reputation, thereby affecting business success. Therefore, understanding and navigating the regulatory landscape is crucial for maritime firms in Port Harcourt (Rodrigue & Notteboom, 2013).

Human resource capabilities are another critical factor influencing the effectiveness of logistics operation management. Skilled and knowledgeable personnel are essential for managing complex logistics operations, making strategic decisions, and responding to dynamic market conditions.Training and development programmes that enhance the competencies of logistics personnel can lead to improved operational performance and, consequently, business success. Given the strategic importance of Rivers State in Nigeria's maritime industry, there is need for empirical research to investigate the specific dynamics of logistics operation management and business success in this context. This study will employ a mixed-methods approach, combining quantitative data analysis with qualitative insights from industry experts. The aim is to provide a comprehensive understanding of how logistics operations influence business outcomes for maritime firms in the region. The findings of this study are expected to contribute to both academic literature and practical applications. For academics, the study will provide empirical evidence on the relationship between logistics operation management and business success in the maritime sector, enriching the existing body of knowledge. For practitioners, the insights gained can inform strategies to enhance logistics performance and achieve business success, thereby benefiting the maritime industry in Rivers State and beyond. The relationship between logistics operation management and the business success of maritime firms in Rivers State is significant. Effective logistics operations not only enhance operational

Research Question

For the purpose of this recenich sat to find answers to the following questions:

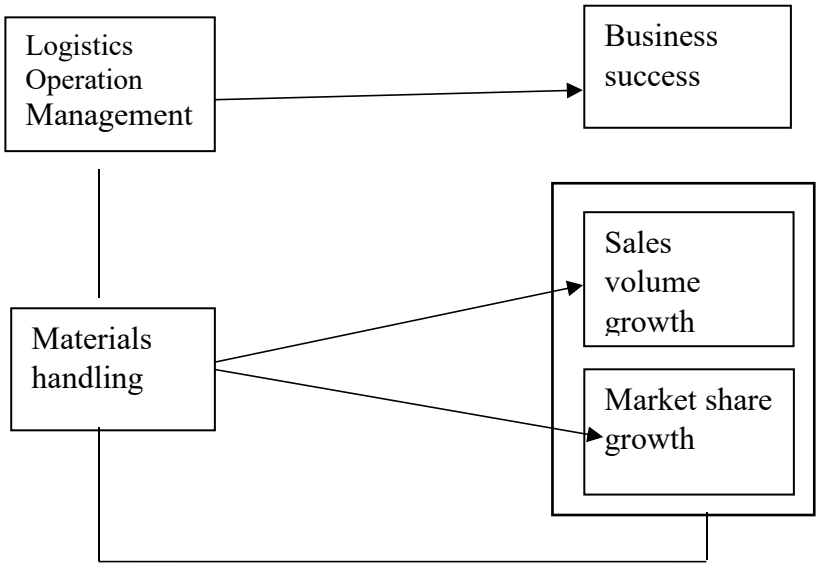
1. determine the relationship between materials. handling and market share growth?
2. determine the relationship between materials. handling and Sales volume growth?

Research Hypothesis

The following null hypothesis and as follows:

1. There is no Significant relationship between Materials handling and markat Sharee growth,
2. There is no significant relationship between material handling and Sales volume growth .

Conceptual/Operational Framework.



Source: Ailawadi & Singh (2015), and Tan et al (2022).

LITERATURE REVIEW

Logistics operation management is a comprehensive process that involves the planning, implementation, and control of the efficient movement and storage of goods, services, and information from the point of origin to the point of consumption. This concept is integral to the overall supply chain management, ensuring that products are delivered in the right quantity, at the right time, and to the right place, while optimizing cost and efficiency. Effective logistics management is crucial for businesses as it directly impacts their operational performance, customer satisfaction, and competitive advantage (Christopher, 2016).

One of the core elements of logistics operation management is transportation management, which deals with the selection of appropriate transportation modes and carriers to move goods efficiently. Transportation management involves route planning, load optimization, and the coordination of inbound and outbound logistics. Efficient transportation management helps reduce transit times and costs, enhances delivery reliability, and minimizes the environmental impact through optimized routes and vehicle utilization (Coyle et al., 2017).

Warehousing and inventory management are also critical components of logistics operation management, Warehousing involves the storage of goods in a manner that allows for easy access, retrieval, and management. Effective warehousing practices ensure that inventory is kept secure and organized, reducing the risk of damage or loss. Inventory management, on the other hand, focuses on maintaining optimal inventory levels to meet demand without incurring excessive holding costs. Techniques such as just-in-time (JIT) inventory and safety stock calculations are employed to balance supply and demand effectively (Mentzer et al., 2001).

Order fulfillment is another vital aspect of logistics operation management. This process entails order processing, picking, packing, and delivering products to customers. Efficient order fulfillment systems are essential for meeting customer expectations regarding delivery speed and accuracy. Advanced order management systems (OMS) and automated picking technologies can significantly enhance the speed and accuracy of order fulfillment, thereby improving customer satisfaction and loyalty (Bowersox et al., 2013).

Information flow management is integral to logistics operations, as it involves the coordination and exchange of information across the supply chain. Accurate and timely information is crucial for decision-making, tracking shipments, managing inventory levels, and responding to customer inquiries. Technologies such as enterprise resource planning (ERP) systems, electronic data

interchange (EDI), and radio-frequency identification (RFID) facilitate the seamless flow of information, enabling real-time visibility and control over logistics activities.

Another important facet of logistics operation management is the strategic sourcing and procurement of goods and services. This involves selecting suppliers, negotiating contracts, and managing supplier relationships to ensure a reliable supply of quality materials at competitive prices. Effective sourcing strategies can reduce costs, improve quality, and enhance supply chain resilience. Supplier relationship management (SRM) tools and strategic sourcing methodologies play a critical role in optimizing procurement processes (Christopher, 2016).

Customer service management is also a significant component of logistics operation management. Ensuring high levels of customer service involves managing returns, handling customer complaints, and providing timely and accurate information about order status and delivery

Schedules. Good customer service practices in logistics can lead to increased customer satisfaction, repeat business, and a strong brand reputation (Mentzer et al., 2001). Sustainability has become an increasingly important consideration in logistics operation management. Firms are focusing on reducing their environmental impact by adopting green logistics practices such as using energy-efficient transportation modes, optimizing routes to reduce fuel consumption, and implementing waste reduction and recycling programmes. Sustainable logistics not only helps protect the environment but also can result in cost savings and improved corporate social responsibility (CSR) profiles (Rao & Holt, 2005).

Logistics operation management also involves risk management, which is the identification, assessment, and mitigation of risks that could disrupt logistics operations. Risks such as natural disasters, political instability, and supply chain disruptions need to be proactively managed to ensure the continuity of logistics activities. Risk management strategies include diversifying suppliers, maintaining safety stock, and developing contingency plans (Waters, 2011).

Finally, continuous improvement is a cornerstone of effective logistics operation management. Firms must continuously monitor and analyze their logistics performance through key performance indicators (KPIs) and benchmarks. This involves identifying areas for improvement, implementing changes, and measuring the impact of those changes. Continuous improvement methodologies such as Lean and Six Sigma (LSS) are commonly applied to enhance logistics processes, reduce waste, and improve overall efficiency (Womack & Jones, 2003). Logistics operation management is a multifaceted discipline that encompasses a wide range of activities aimed at ensuring the efficient and effective movement and storage of goods and information. Its importance to business success cannot be overstated, as it directly impacts cost, efficiency, customer satisfaction, and competitive advantage. Through the integration of advanced technologies, strategic planning, and

helps in reducing operational costs and improving overall warehouse performance (Richards, 2017).

The concept of storage management also extends to the management of returns and reverse logistics. Handling returns efficiently is crucial for maintaining customer satisfaction and minimizing costs. This involves inspecting returned items, restocking them, or disposing of damaged goods appropriately. An effective reverse logistics process ensures that returns are processed quickly and efficiently, reducing the impact on inventory levels and warehouse space. Managing returns effectively is particularly important in industries like e-commerce, where return rates can be high (Rogers & Tibben-Lembke, 1998).

Storage management is a multifaceted discipline that plays a vital role in the overall logistics and supply chain management process. By optimizing warehouse layout, inventory control, safety and security, environmental conditions, space utilization, and order picking processes, companies can achieve significant improvements in operational efficiency and cost management. The adoption of advanced technologies further enhances these processes, providing real-time visibility and control over warehouse operations. Effective storage management not only contributes to the efficient

handling of goods but also supports the broader objectives of customer satisfaction and competitive advantage (Coyle et al., 2017).

Materials Handling

Materials handling is a critical aspect of logistics and supply chain management, encompassing the movement, protection, storage, and control of materials and products throughout their manufacturing, warehousing, distribution, consumption, and disposal stages. Efficient materials handling is essential for optimizing the flow of goods, reducing costs, improving safety, and

Concept of Business Success

The concept of business success is multi-dimensional and varies significantly across different industries, cultures, and individual perspectives. Fundamentally, business success can be understood as the achievement of desired financial and non-financial goals set by stakeholders of the company. This includes a variety of indicators ranging from profitability and market share growth to customer satisfaction and employee engagement.

Traditionally, business success is most often quantified using financial metrics. Profitability remains a primary measure, encompassing net profit, return on investment (ROI), and other indicators of financial health such as revenue growth and cash flow stability. These metrics provide a clear, quantitative assessment of a business's performance and its ability to generate capital relative to its costs (Kaplan & Norton, 1992). Financial health as measured by these indicators is crucial because it enables a business to invest in new opportunities, reward shareholders, and sustain operations.

Beyond mere profitability, business success is also measured by a company's position in the market. This includes metrics such as market share, the rate of customer acquisition, and the scale of market penetration. Growth in these areas indicates a business's ability to compete effectively and expand its influence within the industry (Porter, 1985). Sustaining and increasing market share provides evidence of a company's relevance to its customers and its resilience against competitive pressures. In the modern business environment, where competition is often fierce, customer satisfaction has become a critical indicator of business success. High levels of customer satisfaction lead to increased customer loyalty and positive word-of-mouth, which are significant drivers of repeat business and new customer acquisition. Tools like the Net Promoter Score (NPS) are commonly used to gauge customer satisfaction and loyalty as proxies for predicting business growth and sustainability (Reichheld, 2003).

The ability to innovate and adapt to changing market conditions and technological advancements is another important dimension of business success. In today's fast-paced economic environment, businesses must continually evolve and reinvent their strategies and operations to stay relevant. Success in this area can be measured by a company's rate of innovation, the successful launch of new products, and the ability to enter and establish a presence in emerging markets (Teece, 2007). Increasingly, business success is also evaluated through the lens of employee engagement and the strength of organizational culture. A motivated, committed workforce is fundamental to achieving high productivity and exceptional service quality. Moreover, a strong, positive organizational culture enhances employee retention and attracts top talent. Measures of employee satisfaction and turnover rates are thus indirect indicators of a business's health and long-term viability (Schein, 2010).

Sales Volume Growth

Sales volume equals the quantity of items a business sells during a given period such as a year or fiscal quarter (Codjia, 2015). The Cambridge English Dictionary defines sales volume as the quantity or number of products sold or services provided by a company in a particular period of time. Sales volume is the amount or number of units that are sold of a particular product or service (Investorwords). Typically, when using or analyzing a unit of sales figure, it should be

Mased on a physical product, such as the number of tons of coal sold, rather than on the number of services rendered. A unit sale is a useful figure for analysts because it enables them to determine average product prices and find possible margin pressure (Investopedia).
Sales are the driving force of business (Stefan, 2016). A firm's sales volume changes from time to time. The variation of sales volume is known as sales volume variance. Sales volume variance is the measure of change in profit or contribution as a result of the difference between actual and budgeted sales quantity. It quantifies the effect of change in the level of sales on the profit or contribution over the period. However, sales volume variance differs from other volume based on variances such as material usage variance and labour efficiency variance in that it calculates not just the variance in sales revenue as a result of the change in activity but it quantifies the overall change in the profit or contribution. The nature of the sales volume variance helps in forming a more meaningful analysis of other variances in the preparation of the operating statement. Increasing sales volume is a key way to grow business; it is also a challenging thing to do. A high sales volume generally indicates a profitable venture.
Dahlia and Bernadin (2013) defined Sales Growth as the ratio showing the increase percentage of the sales during the current year compared to the previous year. The Sales Growth is stated in decimal unit with the ratio scale. It is the amount by which the average sales volume of a company's products or services has grown, typically from year to year

Market Share Growth

Market share is a company's percentage of sales in a particular industry. Both increases and decreases may affect profits, so managers typically adjust operations and marketing strategies to increase or decrease it as needed. People also look at this figure before they invest in a company. since it can indicate a business's competitiveness. When discussing this topic, it's important to remember that a share market is something different: it's the exchange of companies' stocks. Victor (2009), market share represents the percentage of an industry or market's total sales that is earned by a particular company over a specified time period. Market share is calculated by taking the company's sales over the period and dividing it by the total sales of the industry over the same period. This metric is used to give a general idea of the size of a company in relation to its market and its competitors.
Market share can be calculated either in terms of the money earned from sales or the number of units sold. The basic way of calculating this percentage is just revenue or units sold divided by that of the total market: for instance, if a computer store sold one out of every four computers, it would have a 25% market share. Real-life calculations are a little more difficult though, since the numbers can change drastically based on how a business defines its market. Adjusting for inflation and the way that sales or units are counted has an impact as well. For instance, a company could get a completely different percentage if it considered itself as compared to a global or local market, or if it calculated orders fulfilled rather than orders made. Likewise, even if a company had a very large share, it may not be as profitable as it initially seems if it has to pay very high taxes or labour costs. Since there are so many factors to consider, managers usually use a combined calculation of units and revenue and use these figures as only one small part of their in-house statistics.
The relationship between market share and profitability continues to be a critical research issue in business strategic management in the world. There is growing pressure to make the right decisions quickly and one of the challenges facing managers is how to increase business profits in the competitive business world today. In order to do this, managers need to understand the factors that increase profitability. Several previous studies have linked market share with profitability.
Enhancing overall operational efficiency. It învolves a variety of equipments and methods tailored to the specific needs of different industries and types of materials (Tompkins et al., 2010).

The primary goal of materials handling is to ensure that materials are moved in the most efficient and safe manner possible. This involves selecting the appropriate handling methods and equipment based on factors such as the size, weight, shape, and fragility of the materials. Common materials handling equipment includes forklifts, conveyors, cranes, pallet jacks, and automated guided vehicles (AGVs). Each type of equipment is designed to handle specific tasks and materials, enabling companies to optimize their handling processes and improve productivity.
Materials handling can be broadly classified into manual handling and mechanized handling. Manual handling involves the physical lifting, carrying, and moving of materials by workers. While this method can be effective for handling small, lightweight items, it poses significant risks of injury and inefficiency when dealing with heavier or bulkier materials. Mechanized handling. on the other hand, utilizes machinery and equipment to move materials, reducing the physical strain on workers and increasing handling speed and efficiency. Automation of materials handling processes through mechanized systems is becoming increasingly prevalent in modern warehouses and manufacturing facilities.
One of the key principles of materials handling is to minimize the movement of materials. The less materials are handled, the lower the risks of damage, delays, and unnecessary labor costs. This principle is often implemented through strategic warehouse layout planning and the use of efficient materials handling systems. For instance, grouping similar items together and placing high-tumover items closer to shipping areas can reduce travel distances and handling times.

Theoretical Framework.
The resource-based view (RBV) theory, articulated by Barney (1991), emphasizes that a firm's internal resources and capabilities are pivotal to achieving and sustaining a competitive advantage. For maritime firms, this translates into optimizing unique resources such as specialized fleets, advanced logistical software, and highly skilled personnel. These resources, when valuable, rare, inimitable, and organized (VRIO framework), enable maritime firms to outperform competitors. For instance, a firm with state-of-the-art container ships and proprietary route optimization algorithms can offer more reliable and cost-efficient services, thus attracting more clients and boosting business success. The RBV theory, therefore, encourages maritime firms to continuously enhance their asset base and capabilities to maintain a competitive edge (Barney, 1991).

Supply chain integration theory
Supply Chain Integration (SCI) theory, as discussed by Flynn et al. (2010), emphasizes the importance of seamless coordination and collaboration among all entities in the supply chain t improve overall performance. For maritime firms, integrating operations with suppliers, customers, and other stakeholders can lead to enhanced efficiency, reduced costs, and improved service quality. This might involve adopting integrated information systems for real-time data sharing, establishing long-term partnerships with key stakeholders, and aligning logistics processes across the supply chain. By fostering a more synchronized and cooperative supply chain, maritime firms can achieve higher operational efficiency and customer satisfaction, which are critical for business success. Effective supply chain integration thus becomes a strategic imperative fhe maritime firms aiming to thrive in a competitive global market (Flynn et al., 2010).

Empirical Review
According to Siddikur et al. (2021), carried out a research to determine the effect of supply chain management on organizational performance in the manufacturing companies of Bangladesh. For this study, data from a total of 211 respondents (response rate 84.4 percent), comprising supply chain supervisors, managers and directors, from the Bangladeshi manufacturing industry, were collected. Using two independent variables, including green innovation and green process, they sere able to assess supply chain management, while organizational performance was evaluated sing two dependent variables, including environmental performance and financial performance,

The SPSS (Statistical Package for Social Sciences) 26.0 programme was used to gather demographic information of the respondents, while Smart PLS (version 3.3.3) was utilized to test the research hypotheses. The results show that two determinants of supply chain management (i.e., peen process and green innovation) positively influenced both the environmental and financial performances of an organization. The findings also showed that the green process has a greater impact on an organization's financial performance than green innovation.
Bag et al. (2021), investigated supply chain management (SCM) elements as part of a complete ystem. It aims to understand the special properties of the SCM system under the moderating effects of product complexity and purchasing structure. The instrument was scientifically developed for gathering survey responses using Dillman's complete design test methods. The conceptual model was eventually tested based on survey data collected from 250 automotive components and allied manufacturers in the emerging economy of South Africa. The results showed that SCM technological dimensions (AI-based) positively influenced SCM strategy. Further, SCM strategy was found to positively influence SCM process. The SCM processes have significant effects on environmental performance, social performance and financial performance, The product complexity has a significant moderation effect on the paths SCM strategy and SCM process.

METHODOLOGY
The researcher word a Correlation research design.
Population of the Study
The population of the study comprised of 110 managers of maritime firms in Port Harcont.
Sample / Sampling techniques
One hundred and ten (110) managers of the maritime firms in Port Harcourt were used for the study. Since the researcher studied all the maritime firms. Therefore census & approach was adopted.

Research Instrument
The research instrument for data collection was go Structured questionnaire Comprising of 15 item offer (4) point Scale, strongly agree (SA), Agree (A), strongly Disagree (SD). The respondent were expected to indicate him/her agreements or disagreements to the statement provided in the validation of the Collection. The instrument was subjected to scrutiny by experts in Marketing, Measurement and evaluation, and graduation to ensure that it will measure what is expected to measure.

Method of data Analysis.
The data collected from the field was organised in tables, the use of Spearman rank Correlation and Supplemented with SPSS version 21.0.
Hypothesis one: There is no significant relationship between materials handling and sales volume growth of maritime firms in Port Harcourt.
Computation Of Spearman Correlation On The Relationship Between Materials Handling And Sales Volume Growth Of Maritime Firms In Port Harcourt

Correlations

		Information sharing	Sales Volume Growth
Spearman's rho materials handling	Correlation Coefficient	1.000	658**
	Sig. (2-tailed)		.000
	N	110	110

Sales Volume Growth	658**	
Correlation Coefficient		1.000
Sig. (2-tailed)	.000	
N	110	
		110

Source: SPSS output, 2025

The Spearman Correlation Coefficient (rho) reveals an v-value of 0.658, indicating a strong and positive relationship between material handling and market share growth among maritime firms Port Harcourt.

Hypothesis two: there is no relationship between materials handling and market share growth of maritime firms in Port Harcourt.

Computation Of Spearman Correlation On The Relationship Between Materials Handling And Market Share Growth Of Maritime Firms In Port Harcourt

Correlations

		Information sharing	Sales Volume Growth
Spearman's rho materials handling	Correlation Coefficient	1.000	658**
	Sig. (2-tailed)		.000
	N	110	110
Market share Growth	Correlation Coefficient	658**	1.000
	Sig. (2-tailed)	.000	
	N	110	110

Source: SPSS output, 2025

The Spearman Correlation Coefficient (rho) reveals an r-value of 0.631, indicating a strong and positive relationship between material handling and market share growth among maritime firms Port Harcourt. This suggests that effective material handling is significantly linked to market dare expansion within these firms.

CONCLUSION

The findings of this study demonstrate that logistics operations management plays a crucial role in the business success of maritime firms in Port Harcourt, with different logistics components showing varying degrees of influence.

RECOMMENDATIONS

Based on the findings, the following recommendations were made to maritime firms in Port Harcourt.

Firms should adopt modern materials handling technologies to enhance their capacity for managing goods efficiently, which will contribute to both market share and profitability growth.

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