

## **INFORMATION SHARING AND COMPETITIVENESS OF QUOTED OIL AND GAS COMPANIES IN NIGERIA**

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### **Abstract**

This study examined the influence of information sharing on competitiveness of quoted oil and gas companies in Nigeria. Information sharing was the predictor and was treated as unidimensionally, while competitiveness was the criterion variable, and was assessed through service quality, on-time delivery, and customer loyalty. Using a robust quantitative research design, data were collected from key managers and staff involved in operations and supply chain functions in quoted oil and gas companies in Nigeria. The analytical framework included univariate analysis for descriptive statistics and bivariate regression analysis to evaluate the influence of information sharing on measures of competitiveness. The findings indicated that information sharing has a significant and positive effect on service quality, on-time delivery, and customer loyalty. Based on these results, the study concluded that information sharing is a vital factor in enhancing firm competitiveness of quoted oil and gas companies in Nigeria, and recommends that oil and gas companies in Nigeria should prioritize sharing information with their suppliers to improve service quality, ensure timely delivery, and increase customer loyalty, thereby strengthening their overall competitiveness.

**Keywords:** Customer loyalty, information sharing, on-time delivery, service quality.

### **Introduction**

In today's dynamic and interconnected global markets, the ability of firms to remain competitive depends significantly on the seamless exchange of information across various stakeholders. The competitive landscape of the oil and gas industry, particularly in Nigeria, underscores the critical role of information sharing in fostering competitiveness of firms.

Empirical studies affirm that information sharing has positive relationship with performance. Okwong et al. (2025) reported that information sharing has positive and statistically significant connection with market presence of fast moving consumer goods distributors; while Ateke et al. (2025) found that information sharing leads to increase in brand awareness and product availability of firms in a collaborative engagement. Also, Okonkwo et al. (2024) found that information-sharing significantly improve on-time delivery of firms.

Despite the obvious benefits of information sharing, challenges persist in implementing effective information-sharing practices in the Nigerian oil and gas companies. One notable obstacle is the reluctance of firms to share sensitive information due to fear of competitive disadvantage (Eze & Nwankwo, 2022). Another challenge lies in the lack of standardized protocols for information sharing among supply chain partners, which often results in inefficiencies and communication breakdowns (Chukwu et al., 2025).

Therefore, this study investigated the correlation between information sharing and competitiveness of firms in Nigeria's quoted oil and gas industry. Guided by the resource-based view (RBV) of the firm, the research highlights the strategic importance of information sharing as an intangible resource that drives operational and strategic performance. While challenges such as data security concerns and interoperability issues persist, advances in technology and collaborative frameworks present significant opportunities for enhancing information-sharing practices.

### **Theoretical Foundation**

The theoretical foundation to this theory is RBV which emerged as a cornerstone of strategic management, and offers a robust framework for understanding the internal dynamics that enable firms achieve and sustain competitive advantage. RBV postulates that a firm's tangible and intangible resources serve as critical drivers of competitive performance if they are valuable, rare, inimitable, and non-substitutable (Barney, 1991).

RBV is rooted in the premise that differences in firm performance are primarily attributable to heterogeneity in resources rather than external conditions. RBV defines resources as assets, capabilities, organizational processes, knowledge and other entities controlled by a firm that enable it conceive and implement strategies designed to improve effectiveness and efficiency (Wernerfelt, 1984).

The relevance of RBV to this study lies in its explanation of the mechanisms through which information sharing drives firm competitiveness. By conceptualizing information sharing as a strategic resource, RBV provides a theoretical lens for analysing its impact on operational performance metrics like on-time delivery and customer loyalty. This is based on the conviction that firms that effectively leverage unique and inimitable information-sharing practices are better positioned to achieve superior performance outcomes (Musa et al., 2023).

### **Concept of Information Sharing**

Information sharing describe a situation whereby at least two firms share intelligence that helps each other to achieve beyond what is possible if they relied on their individual information assets alone (Ateke et al., 2025). It is an essential organizational process that facilitates exchange of data and knowledge between stakeholders to improve decision-making and operational efficiency. Davenport and Prusak (2021) defines information sharing as the process of exchanging meaningful data or insights between organizational members or stakeholders to enable informed decision-making.

In the view of Lee et al. (2022), information sharing is a mechanism for reducing uncertainty within a supply chain by exchanging timely and relevant data that supports strategic alignment and coordinated actions; while Barrett and Asatiani (2023) describe it as voluntary or obligatory exchange of valuable business knowledge that supports value-creating processes across a network of firms to enhance collaboration and competitive advantage.

Information sharing is crucial for enhancing service quality, on-time delivery and customer satisfaction. Given the unique challenges of operating in Nigeria, including infrastructural limitations, regulatory complexities, and market volatility, firms in this sector need to implement effective information-sharing practices to maintain a competitive edge (Patel & Rao, 2024).

Miller et al. (2023) states that firms that engage in information-sharing are better positioned to respond to customer demand, anticipate supply chain disruptions, and adjust operations accordingly. Therefore, by sharing information with suppliers and customers, oil and gas companies can improve the flow of critical data across the supply chain, helping to enhance service quality, minimize delays, and ensure that customer expectations are met, thereby enhancing their competitiveness.

### **Concept of Competitiveness**

Competitiveness is pivotal to organizational success through on-time delivery, service quality and customer loyalty. Adeoye et al. (2022) define competitiveness as ability of an organization to sustain superior performance through strategic differentiation and focus strategies that enable it achieve a competitive edge in the market.

Akintokunbo and Ali (2021) view competitiveness as the outcome of effective supply chain visibility, which enables oil and gas multinational companies improve sales performance and market share. Oyakhire and Akpan (2021) conceptualize competitiveness as the capacity of firms to enhance corporate reputation and performance through sustainable procurement practices, including supplier diversity and management commitment.

Competitiveness is a multifaceted construct that encompasses service quality, on-time delivery and customer loyalty (Yamoah et al., 2021). These were adopted to proxy competitiveness in this study.

### **Service quality**

Service quality serve as a cornerstone for achieving competitive advantage, as firms navigate the complexities of global markets. Service quality is a subjective evaluation formed by customer's experience (Parasuraman et al., 1988, as cited in Nwulu et al., 2023). It is about how well the service delivered meets or exceeds customer's expectations. Similarly, service quality can be defined as the totality of features and characteristics of a service that bear on its ability to satisfy stated or implied needs (ISO 9000:2015, as cited in Okoro & Ibegbulem, 2024).

Herein, we define service quality as customers' overall assessment of how well a service delivered aligns with their expectations across various dimensions, consistently over time. Given the importance of service quality, firms must adopt a strategic approach to enhancing service quality. One of such strategy is information sharing (Lee & Whang, 2000). Sharing demand forecasts with suppliers can enhance quality of inputs, which can positively impact the final service delivered (Dyer et al., 1998). In the context of oil and gas firms, information sharing can improve the efficiency of exploration, production, and distribution processes, leading to better on-time delivery of petroleum products.

### **On-time delivery**

Longo et al. (2022) define OTD as ability of a firm to deliver products to customers at the agreed time. Kishnani et al. (2023) define OTD as a critical performance indicator that measures the percentage of customer orders delivered on or before the promised delivery date. Rokoss et al. (2024) describe it as alignment of actual delivery times with scheduled delivery commitments. Afolabi (2024) posits that OTD encompasses not only the timeliness of deliveries but also the consistency and predictability of delivery performance, which are essential for strategic procurement and supplier relationship management.

Firms that prioritize on OTD are better positioned to navigate market complexities and achieve sustainable growth. Thus, OTD is a critical indicator competitiveness. Scholars argue that information sharing significantly impact competitiveness of firms, particularly in OTD. Information sharing enhances transparency and enable better forecasting and planning, leading to improved OTD (Longo et al., 2022). Therefore, it is crucial for oil and gas firms to prioritize effective information sharing with their supplier in other to enhance and maintain OTD.

### **Customer loyalty**

As companies navigate market fluctuations, regulatory changes, and increasing consumer expectations, understanding and fostering customer loyalty becomes essential. According to Ogbunamiri and Agu (2022), customer loyalty is the consistent preference and patronage of a brand or service provider, driven by satisfaction and perceived value. Nagode et al. (2022) define customer loyalty as the outcome of strategic pricing and service quality, leading to repeat purchases and sustained customer relationships. Odiah et al. (2023) describe customer loyalty as the result of value-driven marketing strategies that align with customer expectations and needs, fostering long-term engagement.

Customer loyalty serves as a critical indicator of competitiveness. Loyal customers not only provide repeat business but also act as brand ambassadors, influencing others through positive word-of-mouth. In the oil and gas sector, where products are commoditized, differentiation through superior customer service and relationship management becomes essential. Companies that effectively implement relationship management practices such as information sharing can foster strong customer relationships, leading to sustained competitive advantage.

### **Information Sharing and Competitiveness**

Information sharing is critical to competitiveness. This empirical review examine studies on the relationship between information sharing and competitiveness. Okwong et al. (2025) examined the nexus between information sharing and market presence of fast moving consumer goods distributors in Rivers State. The study found that information sharing has positive and statistically significant connection with market presence. Specifically, the results indicate that information sharing has very strong positive and statistically significant correlation with brand awareness, and moderate positive and statistically significant correlation with product availability. Brand awareness and product availability used to represent market present in this study also pass indicators of competitiveness.

Similarly, Ateke et al. (2025) examined the impact of channel collaboration on market presence. The study decomposed channel collaboration into information sharing, joint promotion and process integration; and proxied market presence with brand awareness and product availability. The study revealed that information sharing as a dimension of channel collaboration leads to increase in brand awareness and product availability.

Also, Gebisa and Ram (2021) examined the effect of information sharing and inventory management on performance of selected companies in Ethiopia. The findings showed that both information sharing and inventory management practices had a direct and significant positive effect on firm performance. They concluded that information sharing has both direct and indirect effects on firm performance, with inventory management mediating the relationship.

Further, Ebong and Nwokah (2021) investigated the impact of information quality on e-customer loyalty in Nigerian online shopping. The study revealed the existence of significant

positive relationship between information quality and e-customer loyalty in Nigerian online shopping. Similarly, Poi and Nwokah (2022) examined the impact of inventory management on customer satisfaction of petroleum marketing firms in Rivers State. The study found significant positive relationship between inventory management and customer satisfaction.

The foregoing empirical reviewed suggest that information sharing enable competitive of firms in today's in dynamic markets. Nevertheless, in lieu of our need to conduct statistical analyses and interpretation, we develop the conceptual framework in fig. 1, and formulate the corresponding hypotheses.

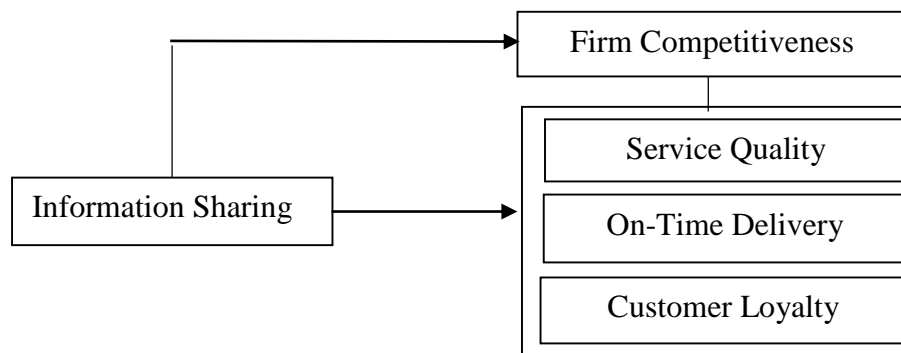


Fig. 1: Conceptual framework of influence of information sharing on competitiveness of quoted oil and gas companies in Nigeria

Ho<sub>1</sub>: Information sharing has significant correlation with service quality of quoted oil and gas companies in Nigeria.

Ho<sub>2</sub>: Information sharing has significant correlation with on-time delivery of quoted oil and gas companies in Nigeria.

Ho<sub>2</sub>: Information sharing has significant correlation with customer loyalty of quoted oil and gas companies in Nigeria.

## Methodology

This study investigated the influence between information sharing and competitiveness of quoted oil and gas companies in Nigeria. This study adopted a quantitative research approach and an explanatory research design. The population for this study comprised 9 quoted oil and gas companies listed on Nigerian Exchange Group (NGX). Given the relatively small size of the population, the study adopted a census. The respondents included 10 procurement officers, 3 supply chain managers, 3 logistics supervisors, 2 operations managers, and 2 corporate strategy executives in 9 quoted oil and gas companies. Thus, 180 respondents provided data for the study. Questionnaire was utilized as instrument of data collection. The questionnaire was subjected to academic scrutiny to determine its validity. Again, to determine the reliability of the questionnaire, a pilot study was conducted, and the data were subjected to Cronbach's Alpha reliability test with a threshold of 0.70 set by Nunally (1978), which indicated that the items were reliable. Simple regression statistic was used to test the influence of information sharing on measures of competitiveness. The decision rule was: accept alternate hypothesis if p-value is less than critical value critical value (0.01); and reject alternate hypothesis if the p-value is greater than the critical value. All statistical analyses were performed using Statistical Package for the Social Sciences (SPSS) version 23.0.



**Table 1. Results for the reliability tests**

Construct	Cronbach alpha	Number of items
Information sharing	0.800	4
Service quality	0.851	3
On-time delivery	0.808	3
Customer loyalty	0.740	3

Source: SPSS Output (2025).

## Data Analysis and Results

**Table 2: Descriptive Statistics on Information Sharing**

Variable	Mean	Std. Dev.
We regularly share information about our future plans with our suppliers	4.22	0.631
We openly communicate changes in our requirements to our suppliers	4.12	0.624
Our suppliers proactively share relevant market information with us	4.04	0.565
We have established effective channels for information exchange with suppliers	4.13	0.616

Source: SPSS Output (2025).

A striking observation from the data in Table 2, is the consistently high mean scores across all four items, which notably range from 4.04 to 4.22. When these figures are assessed against the predetermined base mean of  $\bar{x}=3.00$ , they collectively paint a picture of a robust and highly positive disposition towards information sharing. Equally important are the standard deviations, which are remarkably low, ranging from 0.565 to 0.631. This narrow spread signifies a high degree of consensus among respondents; that is to say, perceptions regarding the effectiveness and consistency of information sharing practices are largely uniform across the organisations surveyed.

**Table 3: Distribution for Service Quality**

Variable	Mean	Std. Dev.
Our organisation consistently provides high-quality services to our clients	4.10	0.626
Our services reliably meet or exceed customer expectations	3.90	0.661
We have effective processes in place to ensure the quality of our services	3.95	0.736

Source: SPSS Output (2025).

Table 3 above presents the univariate analysis for service quality. The mean scores for all three items measuring service quality are commendably high, ranging from 3.90 to 4.10. When evaluated against the base mean of  $\bar{x}=3.00$ , these figures collectively indicate a strong positive self-assessment of the service quality provided by these firms to their clients. The standard deviations for these items range from 0.626 to 0.736. While slightly higher for the third item, they generally suggest a reasonable level of consensus among respondents regarding the state of service quality.

**Table 4: Distribution for On-Time Delivery**

Variable	Mean	Std. Dev.
Our organisation consistently delivers products/services on time	4.09	0.652
We have efficient logistics and supply chain processes in place	4.13	0.644
We effectively manage lead times to ensure timely delivery	4.10	0.626

Source: SPSS Output (2025).

Table 4 above presents the univariate analysis for on-time delivery. The mean scores for all three items measuring on-time delivery are notably high, ranging from 4.09 to 4.13. When interpreted against the established base mean of  $\bar{x}=3.00$ , these figures collectively indicate a very strong positive perception of the firms' capabilities in ensuring timely delivery of their

products and services. The standard deviations for these items are relatively low, ranging from 0.626 to 0.652. This narrow spread indicates a high level of agreement among respondents regarding the effectiveness and consistency of their organisations' on-time delivery performance.

**Table 5: Distribution for Customer Loyalty**

Variable	Mean	Std. Dev.
Our organisation enjoys a high level of customer loyalty	4.05	0.639
Our customers frequently choose our organisation over competitors	4.01	0.646
We have strong, long-lasting relationships with our key customers	4.02	0.640

Source: SPSS Output (2025).

As shown in Table 5 above, the mean scores for all three items measuring customer loyalty are consistently high, ranging from 4.01 to 4.05. When interpreted against the established base mean of  $\bar{x}=3.00$ , these figures collectively indicate a very strong positive perception of customer loyalty enjoyed by these firms. The standard deviations for these items are remarkably low, ranging from 0.639 to 0.646. This narrow spread signifies a high degree of consensus among respondents regarding the strong level of customer loyalty their organisations command.

**Table 6: Summary of Regression Analysis Results for Information Sharing, Service Quality, On-Time Delivery, and Customer Loyalty**

Hypothesis	R <sup>2</sup>	F-statistics	Sig	Standardized coefficient ( $\beta$ )	t-statistic	Sig
H <sub>A1</sub>	0.247	43.646	0.000	0.497	6.607	0.000
H <sub>A2</sub>	0.190	31.165	0.000	0.436	5.583	0.000
H <sub>A3</sub>	0.186	30.382	0.000	0.431	5.512	0.000

Source: SPSS Output (2025).

The results, as shown in Table 6, reveal that information sharing has a significant and positive influence on service quality, on-time delivery, and customer loyalty of quoted oil and gas companies in Nigeria. Specifically, information sharing explained 24.7% of variance in service quality, 19.0% in on-time delivery, and 18.6% in customer loyalty, with all models statistically significant at  $p < 0.05$ . The positive standardized coefficients ( $\beta = 0.497, 0.436$ , and  $0.431$ , respectively) confirm that higher levels of information sharing lead to corresponding improvements in these competitiveness outcomes. Consequently, all 3 alternate hypotheses were accepted; as the facts affirm that information sharing enhances service quality, minimizes delays, and increases customer loyalty. These findings indicate that information sharing is an essential strategic supply chain practice that enhance competitiveness of quoted oil and gas companies in Nigeria.

### Discussion of Findings

The findings of this study revealed that information sharing positively and significantly influences competitiveness in terms of service quality OTD and customer loyalty, of quoted oil and gas firms in Nigeria. These findings are not isolated but are powerfully supported and contextualized by a rich body of existing empirical literature. Many studies corroborate the overarching benefit of information sharing on supply chain performance, which is an intrinsic component of overall competitiveness.

The findings corroborate that of Okwong et al. (2025) whose study examined the nexus between information sharing and market presence (another term for competitiveness) of fast

moving consumer goods distributors in Rivers State, and found that information sharing has positive and statistically significant connection with market presence. Similarly, the findings support the report of Ateke et al. (2025) whose study on impact of channel collaboration on market presence, showed that information sharing as a dimension of channel collaboration leads to increase market presence in terms of brand awareness and product availability.

Also, the current findings cohere with the report of Gebisa and Ram (2021) that information sharing and inventory management practices have direct and significant positive effect on firm performance. The report of Gebisa and Ram (2021) shows that firms that engage in information sharing experience improved performance.

Furthermore, the current findings support that of Ebong and Nwokah (2021) who investigated the impact of information quality on e-customer loyalty in Nigerian online shopping and found the existence of significant positive relationship between information quality and e-customer loyalty in Nigerian online shopping; and that of Poi and Nwokah (2022) who found significant positive relationship between inventory management and customer satisfaction.

### Conclusion and Recommendations

This study examined the influence of information sharing on competitiveness of listed oil and gas companies in Nigeria. The findings reveal that information sharing has a significant positive impact on service quality, on-time delivery, and customer loyalty. Based on these results, the study concludes that information sharing is a crucial factor in determining firm competitiveness among quoted oil and gas companies in Nigeria. It recommends that these companies should prioritize sharing information with their suppliers to improve service quality, ensure timely delivery, and boost customer loyalty, ultimately strengthening their overall competitiveness. A shared information approach guarantees consistent updates across departments, reducing ambiguity and enhancing on-time delivery.

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