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ORGANIZATIONAL READINESS AND OPERATIONAL EFFICIENCY OF OIL AND GAS SERVICING COMPANIES IN RIVERS STATE, NIGERIA

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Abstract

This study examined the relationship between organizational readiness and operational efficiency of oil and gas servicing companies in Rivers State. The objectives of the study was to determine how organizational readiness relates to cost reduction, enhanced productivity and customer satisfaction, as measures of operational efficiency of oil and gas servicing companies in Rivers State. The study adopted a descriptive design. The population of the study consisted 304 oil and gas servicing companies. A sample size of 173 was derived using Taro Yemane's formula for sample size determination. Primary data was collected using questionnaire. The hypotheses formulated to guide the study were tested using Pearson's Product Moment Correlation. The findings revealed a strong positive relationship between organizational readiness and measures of operational efficiency (cost reduction, enhanced productivity, customer satisfaction) of oil and gas servicing companies in Rivers State. The study concluded that organizational readiness contributes significantly to operational efficiency of oil and gas servicing companies in Rivers State; and recommends that management of oil and gas servicing firms in Rivers state that seek to improve their operational efficiency in terms of cost reduction, enhanced productivity and customer satisfaction should always be prepared to effectively implement new initiatives, adapt to change, and respond to industry challenges.

Keywords: Cost reduction, customer satisfaction, enhanced productivity, operational efficiency, organizational readiness

Introduction

The oil and gas industry is a critical sector of Nigeria's economy. The industry contributes a greater percentage of the nation's revenue. Efficiency of firms in the industry is thus a concern to the firms themselves, and the nation. Improved operational efficiency is vital for maintaining productivity and sustainability in the industry (Smith & Johnson 2022). According to Kalluru and Sham Bhat (2009), operational efficiency is the proficiency of a corporation to curtail costs and wastes, and optimally utilize resource to serve customers' needs.

Business practice in today's increasingly disruptive operating context require firms to sense shifting market conditions and adapt their operations accordingly (Ateke & Harcourt, 2023). This means that firms must be ready to learn, unlearn and relearn, in order to remain true to their mission and vision. Also, growth in information and communication technology has accentuated the need for companies to adopt newer, and sometimes, better ways of doing business. Older methods and practices have to be jettisoned to make room for newer methods. But, it takes organizational readiness implement change effectively (Weiner, 2009).

Weiner (2009) emphasizes that readiness is not only about possessing the necessary resources, but also involves a shared commitment among staff to make the change work. This shared commitment stems from a collective belief that the change is needed, desirable and feasible (Armenakis et al., 1993); and a culture that promote flexibility, innovation and open communication (Kotter, 1996).

Organizations with a high level of readiness for change stand to achieve numerous benefits, including business continuity. However, very little is known about the contributions of readiness for change to the operational efficiency of firms in the oil and gas industry. This is mostly because

of the scarcity of studies focused on providing insights into the level of "change-readiness" of these firms and perhaps how such a posture enhance their productivity, reduce their operating costs and enable them deliver better value to customers. Thus, this study examined the relationship (if any) between organizational readiness and operational efficiency of oil and gas servicing companies in Rivers state.

Theoretical Framework

This study is anchored resource based theory (Wernerfelt, 1984) which argues that a firm has the ability to achieve and sustain competitive advantage if it possesses resources that are valuable, rare, inimitable and non-substitutable. Helfat and Peteraf (2003) define a firm's resources as "all assets, capabilities, processes, attributes, information and knowledge controlled by an enterprise, and which enable them conceive and implement strategies that improve their efficiency and effectiveness.

This theory suggests that the combined efforts of different resources and the expert management of these resource, influence organizational competitiveness (Golicic & Smith, 2013). The theory suggests that firms earn sustained competitive advantage because they have access to strategic resources. These resources have unique characteristics which are rare, valuable, cannot be imitated, and have no close substitute. When these conditions are met, competitive advantage is created.

Concept of Organizational Readiness

Organizational readiness refers to the preparedness of a company to implement and sustain change, particularly in complex and dynamic industries (Forry, 2024; Miadenova, 2022). It encompass the alignment of strategies, capabilities, processes, and culture to support new initiatives or change in operations, technology or regulatory compliance. Organizational readiness enable effective implementation of new initiatives, adaptability and responsiveness. It however, relies on the right infrastructure, skilled workforce, technological capabilities and strategic planning.

High level of organizational readiness is exemplified by ability to initiate change, exert greater effort, exhibit greater persistence, and more cooperative behavior. According to Brown and Burns (2019), organizational readiness is conceptualized as the preparedness of an organization to implement change or innovate, and encompasses leadership commitment, resource availability, and workforce adaptability.

Organizational readiness also involve adapting to regulatory requirements, advances in technology and socio-economic contexts. Readiness for change is an important management concept that helps organizations reach their goals effectively (Miadenova, 2022). An important contributor to readiness for change is leadership style of managers. Transformational leaders and servant leaders focus on team building, motivation and collaboration with followers at different levels to accomplish set goals, hence prepare the company for change (Igwe & Ateke). These leaders enrich the lives of employees, build better organisations and advance the development of societies (Igwe & Ateke).

Concept of Operational Efficiency

Operational efficiency is the ability of an organization to reduce waste in time, effort and materials as much as possible, while producing high-quality product (Nwulu et al., 2022). Operational

efficiency is also seen as the ratio between input required to keep the organization going and the output it provides. Input refers to resources invested in a business, while output refers to what is gained from the business.

According to Kalluru and Bhat (2009), operational efficiency depends skilled workforce and proper use of technology. Operational efficiency is a metric that compares a company's profit to the cost required to make that profit. More specifically, operational efficiency compares the input required to sustain a business to output. Relatively, more efficient firms tend to maintain more stability levels in terms of output and operating performance (Mills & Schumann, 2015).

Operational efficiency is a relative concept. Egbe and Aturu-Aghedo (2023) argue that it entails optimal resource utilization and cost and waste reduction in business operations; while Bartuševiciene and Šakalyte (2013, as cited in Nwulu et al., 2022) states that operational efficiency involve inventory optimization, optimal resource utilization and avoidance of redundancy. Other indices of operational efficiency are reduced order cycle time, waste reduction and energy conservation, (Nwulu et al., 2022). Herein, operational efficiency is deconstructed into cost reduction, enhanced productivity and customer satisfaction.

Cost reduction

Cost reduction is the process of decreasing a company's expenses to maximize profits. It involves identifying and removing expenditures that do not provide added value to customers while also optimizing processes to improve efficiency. Cost reduction typically focuses on generating savings. Cost reduction is the achievement of real and permanent reduction in the unit cost of goods manufactured or services rendered without damaging the ability of the product to serve its intended purposes.

According to Gaurav et al. (2013), cost reduction is the way toward searching for, finding and expelling baseless costs from a business to build benefit without negatively affecting quality. The concept of continuously searching for new ways to reduce costs needs to be constantly promoted at all levels of an enterprise (Figar & Ivanoic, 2015). Cost reduction strategies such as value engineering and value analysis, budget discipline, target costing and life cycle costing can be adopted to reduce material, labor and productivity costs.

Enhanced productivity

Productivity is the added value of business activities in relation to investments in those activities. Sheth and Sisodia (2002, as cited in Ateke & Amangala, 2020) define productivity as the quantifiable added-value of business activities, relative to costs or the output from economic resources invested. Enhanced productivity therefore, referred to the quantity of work attained in a unit of time by means of factors of production, including technology, capital, entrepreneurship, land and labour.

Enhanced productivity is the ratio between inputs and outputs. According to Mathis and John (2013), enhanced productivity is a measure of the quantity and quality of work completed while taking into consideration, the cost of capital employed. The level of organizational productivity is inversely proportional to the level of competitive advantage. More output is not necessarily produced when productivity ratios are higher; it might alternatively be produced with fewer people

or with less cash and time invested in the production of the same amount of output when productivity ratios are lower

According to Amah and Ahiauzu (2013) productivity can be conceived as the capacity of a corporation to realize its intended outcomes while using minimal resources. McNamara (2003) asserts that productivity can be measured in terms of quality, quantity, time, and cost. Hence, analyzing productivity is concerned with determining the amount of time it takes the firm to produce a given unit of products of the required quality.

Customer satisfaction

Customer satisfaction is the accumulation a customer's purchase and consumption experiences (Andreassen & Lindestad, 1998; Oliver, 2003). Yi (2010) mentioned that customer satisfaction is influenced by experiences and expectations with service performance. This means that customer satisfaction is expectation before purchase and perception about performance after purchase. In the service environment, customer satisfaction has been seen as a special form of customer attitude.

Customer satisfaction is a phenomenon of post-purchase reflection on how much the customer likes or dislikes a product after experiencing it. It can be treated as a fulfillment of consumptive goals as experienced and described by customers (Oliver, 2003). Customer satisfaction reflects customers' perspective of their needs and expectations throughout the product life cycle (Amangala & Ateke, 2018). Satisfaction is thus customers' assessment of how a product met their needs. Hamilton-Ibama and Ogonu (2021) states that customer satisfaction is the main concern of businesses of today.

Organisational Readiness and Operational Efficiency

Various studies undertaken by different scholars provide deep understanding of the concept of organizational readiness and its relevance to operational efficiency of firms. Choi et al. (2017) studied effects of organizational readiness for change on EHR implementation success in the United States. The study found that organizational readiness for change positively influenced EHR implementation success, with the strongest effects observed on quality of care and organizational efficiency.

The study of Choi et al. (2017) also indicates that IT sophistication, leadership support, and training positively affected organizational readiness for change, while resistance to change had a negative impact. This demonstrates the importance of organizational readiness in ensuring successful EHR implementation. By identifying key factors that influence readiness, such as IT sophistication and leadership support, Choi et al. (2017) provide valuable insights for firms seeking to promote successful EHR adoption and improve the quality of care.

Haffar et al. (2019) assessed literature to unravel the relevance of organizational readiness to project success. The study found a positive and significant relationship between organizational readiness for change and project success. The results indicate that higher levels of organizational readiness is associated with greater project success. Haffar et al. (2019) identified communication, leadership, organizational culture and employee involvement as factors that influence organizational readiness.

Davenport and Harris (2007) probed the interconnectedness between organizational readiness change, information technology and business process redesign; and the role of information technology in enabling business process redesign and improving operational efficiency. The study found that IT play a crucial role in enabling business process redesign, leading to improved operational efficiency and competitive advantage.

Based on the foregoing, the following hypotheses were formulated to guide the study.

- **Ho1:** There is no significant relationship between organizational readiness and cost reduction of oil and gas servicing companies in Rivers State.
- **H**₀₂: There is no significant relationship between organizational readiness and enhanced productivity of oil and gas servicing companies in Rivers State.
- **Hos:** There is no significant relationship between organizational readiness and customer satisfaction of oil and gas servicing companies in Rivers State.



Fig. 1: Conceptual framework of relationship between organizational readiness and operational efficiency

Methodology

The study examined the relationship between organizational readiness and operational efficiency. This study adopted a descriptive research design. The target population of the study consisted 304 oil and gas servicing companies in Port Harcourt as obtained from the Yellow Pages of the Rivers State Ministry of Commerce and Industry (2014). The study utilized the Taro Yamene (1967) formula to derive a sample size of 173 oil and gas servicing companies, while probability sampling (simple random sampling) was used to arrive at the test units. Primary data was collected using questionnaire. A total of 176 copies of questionnaire was administered to the 173 oil and gas servicing companies. The Cronbach Alpha test was used to assess the reliability of the instrument, with 0.7 set as the benchmark for inclusion in the analysis. The data obtained from the field was analyzed to determine the relationship between the variables under investigation, using Pearson's Product Moment Correlation (PPMC), with the aid of the Statistical Package for Social Sciences (SPSS) version 22.0.

		Organizational	Cost
		Readiness	Reduction
Organizational	Pearson Correlation	1	$.860^{**}$
Readiness	Sig. (2-tailed)		.000
	N	142	142
Cost Reduction	Pearson Correlation	$.860^{**}$	1
	Sig. (2-tailed)	.000	
	Ν	142	142

Data Analysis, Results and Interpretation Table 1: Correlations between Organizational Readiness and Cost Reduction

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

Source: Researcher's Desk, 2024

Table 1 shows the Summary of P(r) analysis of the relationship between organizational readiness and cost reduction of oil and gas servicing companies in Rivers State. The Table shows a P(r)coefficient of .860. This means that a very strong positive relationship exists between organizational readiness and cost reduction of oil and gas servicing companies in Rivers State at 0.05 level of significance and probability value of 0.000. Based on these facts, the null hypothesis which states that there is no significant relationship between organizational readiness and cost reduction of oil and gas servicing companies in Rivers State was rejected.

Table 2:	Correlations	between	Organizat	tional Rea	diness and	1 Enhanced	Productivity
I abit 2.	Correlations	Detween	Organiza	nonai Kea	unicss and	1 Emanceu	I Toutenty

		Organizational	Enhanced
		Readiness	Productivity
Organizational	Pearson Correlation	1	.875**
Readiness	Sig. (2-tailed)		.000
	Ν	142	142
Enhanced	Pearson Correlation	.875**	1
Productivity	Sig. (2-tailed)	.000	
	N	142	142

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

Source: Researcher's Desk, 2024

Table 2 shows that the Pearson(r) between organizational readiness and enhanced productivity is .875 at 0.05 level of significance and probability value of 0.000. This means that a very strong positive and statistically significant relationship exists between organizational readiness and enhanced productivity of oil and gas servicing companies in Rivers State. Based on these facts, the null hypothesis which denies the existence of significant relationship between organizational readiness and enhanced productivity of oil and gas servicing companies in Rivers State was rejected.

		Organizational	Customer
		Readiness	Satisfaction
Organizational	Pearson Correlation	1	.615**
Readiness	Sig. (2-tailed)		.001
	N	142	142
Customer	Pearson Correlation	.615**	1
Satisfaction	Sig. (2-tailed)	.001	
	N	142	142

Fable 3:	Correlations	between	Organizational	Readiness and	Customer	Satisfaction
	Contenations	Detween	OI gamzanonai	ittaunitos anu	Customer	Dausiacuon

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

Source: Researcher's Desk, 2024

Table 3 presents the summary results of test of relationship between organizational readiness and customer satisfaction of oil and gas servicing companies in Rivers State. Table 3 shows that the Pearson's Product Moment Correlation coefficient is .615 at 0.05 level of significance and probability value of 0.000. This means that a strong positive and statistically significant relationship exists between organizational readiness and customer satisfaction of oil and gas servicing companies in Rivers State. Thus, the null hypothesis which states that there is no significant relationship between organizational readiness and customer satisfaction of oil and gas servicing companies in Rivers State was rejected.

Conclusion and Recommendations

Based on the results of data analysis, this study concluded that organizational readiness has significant relationship with operational efficiency (cost reduction, enhanced productivity and customer satisfaction) of oil and gas servicing companies in Rivers State. This implies that higher levels of organizational readiness would result to increase in operational efficiency of oil and gas servicing companies in Rivers State. Thus, the study recommends that Management of oil and gas servicing companies in Rivers State should:

- a) Always be prepared to implement new initiatives, adapt to change, and respond to industry challenges. This will help to improve their operational efficiency in terms of cost reduction, enhanced productivity and customer satisfaction; and
- b) Establish adequate top management support to effectively implementing new initiatives in the organization. This will help to improve the operational efficiency of the organization.

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