e-ISSN 3027-0537
p-ISSN 3027-0375

10.5281/zenodo.13883951 Vol. 07 Issue 09 Sept - 2024 Manuscript ID: #1580

ORGANIZATIONAL STRUCTURE AND ADAPTABILITY OF MANUFACTURING FIRMS IN RIVERS STATE, NIGERIA

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Abstract:

The survey study investigated the relationship between organizational structure and adaptability of manufacturing firms in Rivers State, Nigeria. The environment of business is not an independent entity, but composed of complex combination of factors such as government regulations, product and labour conditions, industry customs and practices which have greater influence on how job task are divided, grouped and coordinated in the manufacturing sector. It is based on this problem that this research was set out to explore the compatibility of organisational structure and adaptability to avert negative influence on manufacturing firms in a dynamic environment. As a consequence, this research involved 4 objectives, 4 research questions and 4 research hypotheses. A population of 362 managers and supervisors of 15 manufacturing firms was covered. A sample size of 186 managers and supervisors were drawn using Krejcie and Morgan (1970) Table. The simple random sampling technique was employed and copies of questionnaire were utilized in gathering data for the study. The response to the questionnaire was measured on a 4-point Likert scale, and the data were analysed using Spearman Rank Order Correlation Coefficient. Based on the findings, the study concludes that there is a significant and positive relationship between the dimensions of organisational structure and adaptability, meaning a correlation exists between organizational structure and adaptability of manufacturing firms in Rivers State. The study recommends that manufacturing firms in Rivers State should enhance mechanistic structures for better process, clarity and risk management, while incorporating organic elements to boost flexibility, innovation, and quick decision-making for improved adaptability and resilience.

Keywords:

Organizational Structure, Mechanistic Structures, Organic Structure, Adaptability, Adaptive Capacity, Vulnerability.

INTRODUCTION

In the dynamic environment of the manufacturing industry, adaptability stands out as a crucial factor influencing the success and sustainability of firms. With rapid changes in market dynamics, technological advancements, and operational challenges, manufacturing firms must possess the ability to adapt swiftly to remain competitive. Adaptability enables manufacturing firms to navigate unforeseen disruptions and uncertainties effectively, such as economic downturns, supply chain disruptions, or shifts in consumer preferences (Smith & Tushman, 2023). Firms that can adjust their strategies, processes, and resource allocations in response to external shocks are better equipped to withstand adversity and maintain operational continuity. Adaptability is closely linked to innovation, as firms that embrace change are more likely to explore new ideas, technologies, and business models Teece, (2021). By adapting to emerging trends and consumer demands, manufacturing firms can identify opportunities for product diversification, process optimization, and market expansion. Additionally, adaptable firms are better positioned to capitalize on breakthrough innovations, incorporating new technologies or approaches to production swiftly.(Teece, 2021)

Adaptability allows manufacturing firms to optimize their operational processes, enhancing efficiency and productivity O'Reilly & Tushman, (2022). Through streamlining workflows, adjusting production schedules, and reallocating resources based on demand fluctuations, adaptable firms minimize waste, reduce lead times, and improve overall performance. Embracing lean principles and agile methodologies enables firms to respond quickly to market changes while maintaining high standards of quality and customer satisfaction. Adaptability is essential for manufacturing firms to stay attuned to the evolving needs and expectations of their customers Sull, (2020). By actively seeking feedback, monitoring market trends, and iterating on product designs, adaptable firms can tailor their offerings to meet changing customer demands effectively. Furthermore, adaptability enables firms to personalize products and services, fostering stronger customer relationships and enhancing brand loyalty. Adaptability serves as a foundation for resilience, innovation, operational excellence, and customer-centricity. By cultivating a culture of adaptability and embracing change as a constant, manufacturing firms can navigate challenges, seize opportunities, and sustain long-term growth. Therefore, investing in adaptability emerges as a strategic imperative for manufacturing firms aiming to remain competitive and relevant in the evolving marketplace. Sull, (2020)

Organizational structure plays a fundamental role in shaping the adaptability and resilience of manufacturing firms. This is particularly pertinent in regions like Rivers State, Nigeria, where industries face a myriad of challenges ranging from economic fluctuations to regulatory frameworks. Understanding the interaction between organizational structure and adaptability within the manufacturing sector is essential for firms aiming to thrive amidst uncertainty and change.Over the past decade, scholars and practitioners alike (Anyaeche & Akindele, 2020; Tammy et al., 2008; Bekanwah, et al., 2020), have increasingly scrutinized the organizational structures of manufacturing firms, seeking insights into their ability to navigate turbulent environments. The Nigerian context, and specifically Rivers State, presents a unique setting for such inquiries due to its diverse industrial environment and the socio-economic dynamics at play.

To comprehend the intricacies of organizational structure and adaptability in manufacturing firms, it is imperative to consider various theoretical frameworks and empirical studies. One such framework is the contingency theory, which posits that organizational structures should be contingent upon the internal and external environment of the firm (Donaldson, 2021). This perspective suggests that manufacturing firms in Rivers State may adopt different organizational structures based on factors such as size, technology, and market dynamics, influencing their adaptability to changing

circumstances. Moreover, the resource-based view (RBV) offers valuable insights into how manufacturing firms leverage their internal resources and capabilities to achieve competitive advantage (Barney, 2020). In the context of Rivers State, understanding how firms deploy their organizational structure to optimize resource allocation and utilization is essential for assessing their adaptability in a challenging business environment.

Schein (2023) highlighted the role of organizational culture in shaping the adaptability of manufacturing firms. A strong organizational culture values innovation, flexibility, and learning which facilitate rapid responses to market shifts and operational challenges. Therefore, examining the cultural and structural arrangements provides a comprehensive understanding of adaptability strategies.In light of the aforementioned theoretical perspectives and empirical findings (Schein, 2023; Barney, 2020; Donaldson, 2021;Anyaeche & Akindele, 2020; Tammy et al., 2008; Bekanwah, et al., 2020) , this paper aims to contribute to the existing body of knowledge by conducting a detailed examination of the organizational structure and adaptability of manufacturing firms in Rivers State, Nigeria and by integrating insights from academic research, industry reports, and first-hand observations, this study seeks to provide practical recommendations for enhancing the resilience and competitiveness of manufacturing firms operating in this region.

STATEMENT OF PROBLEMS

Manufacturing firms in Rivers State, Nigeria, operate within a dynamic and competitive environment, requiring them to adapt swiftly to changing market conditions, technological advancements, and regulatory requirements. However, several challenges impede their adaptability, impacting their competitiveness and sustainability. Manufacturing firms often struggle with rigid organizational structures that inhibit their ability to respond promptly to market changes (Smith, 2022). Hierarchical setups and bureaucratic processes impede decision-making and innovation, hampering the firm's adaptability.The absence of a conducive environment for innovation within manufacturing firms hinders their ability to adapt to evolving market trends (Johnson & Olaniyan, 2021).

Insufficient investment in research and development (R&D), coupled with a risk-averse culture, stifles creativity and inhibits adaptability.Ineffective communication channels and soloed departments hinder the flow of information within manufacturing firms (Okafor et al., 2023). This lack of communication inhibits collaboration, knowledge sharing, and timely decision-making, reducing the firm's adaptability.Many employees within manufacturing firms in Rivers State exhibit resistance to change due to fear of job insecurity or unfamiliarity with new processes (Adewale & Umar, 2020). This resistance slows down the implementation of adaptive measures, impeding the firm's ability to respond to market dynamics effectively.

Manufacturing firms also faces significant challenges in adapting to dynamic market conditions, primarily due to inflexible organizational structures Brown, (2021). The rigidity inherent in these structures often leads to inefficiencies and delays in responding to market changes, hindering the firm's overall competitiveness. Moreover, the lack of a conducive environment for innovation further exacerbates this problem, as existing organizational setups may stifle creativity and inhibit the development of new ideas (Smith & Adekunle, 2022). In addition, communication barriers within manufacturing firms impede the timely flow of information and decision-making processes, resulting in further delays in adapting to market demands (Okafor et al., 2023). Furthermore, resistance to change among employees, often fuelled by the traditional organisational structures prevalent in the industry, poses a significant obstacle to implementing necessary adaptations and improvements

(Adewale & Umar, 2020). Moreover, the presence of departmental silos limits collaboration and information sharing, hampering the firm's ability to leverage internal resources effectively (Chukwu et al., 2022).

Additionally, inefficient resource allocation processes further compound the adaptability challenges faced by manufacturing firms, as rigid structures limit the ability to reallocate resources in response to shifting market dynamics (Adeoye & Ibrahim, 2024). To navigate the external environmental uncertainties characteristic of the region, manufacturing firms must adopt proactive risk management strategies and scenario planning approaches (Oladele & Ajayi, 2023). By addressing these adaptability issues, manufacturing firms in Rivers State can enhance their resilience and competitiveness in a rapidly changing business landscape.

AIM AND OBJECTIVES OF THE STUDY

The study examined the relationship between organizational structure and adaptability of Manufacturing firms in Rivers State. Specifically, it examined the connection between:

1. Mechanistic structure and adaptive capacity of manufacturing firms in Rivers State.
2. Mechanistic structure and vulnerabilityof manufacturing firms in Rivers State.
3. Organic structure and adaptive capacity ofmanufacturing firms in Rivers State.
4. Organic structure and vulnerabilityof manufacturing firms in Rivers State.

RESEARCH QUESTIONS

1. What is the relationship between mechanistic structure and adaptive capacity ofmanufacturing firms in Rivers State?
2. What is the relationship between mechanistic structure and vulnerabilityof manufacturing firms in Rivers State?
3. What is the relationship between organic structure and adaptive capacity ofmanufacturing firms in Rivers State?
4. What is the relationship between organic structure and vulnerabilityof manufacturing firms in Rivers State?

RESEARCH HYPOTHESES

Ho_1: There is no significant relationship between mechanistic structure and adaptive capacity ofmanufacturing firms in Rivers State.

Ho_2: There is no significant relationship between the mechanistic structure and vulnerability of manufacturing firms in Rivers State.

Ho_3: There is no significant relationship between organic structure and adaptive capacity ofmanufacturing firms in Rivers State.

Ho_4: There is no significant relationship between organic structure and vulnerabilityof manufacturing firms in Rivers State.

Conceptual Framework

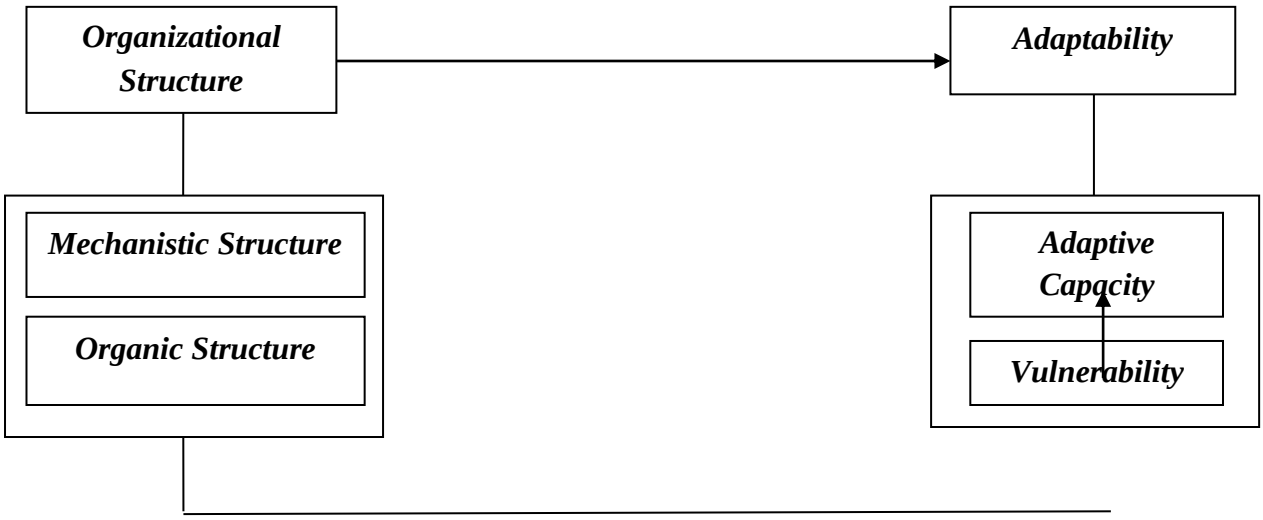

Figure 1: Conceptual framework of Organizational Structure and Adaptabilityof Manufacturing firms in Rivers State.

ORGANIZATIONAL STRUCTURE

Organizational structure refers to the framework that outlines how tasks, roles, and responsibilities are divided, coordinated, and controlled within an organization (Robbins & Judge, 2020). It defines the hierarchy of authority, communication channels, and workflow processes that govern the functioning of the organization(Anyaeche& Akindele 2020). Organizational structure can vary widely depend on factors such as the size of the organization, its industry, culture, and strategic goals.In a traditional hierarchical structure, authority flows from top management downwards through multiple levels of management, with each level responsible for overseeing specific functions or departments. This structure often features clear lines of authority and formalized communication channels but can be rigid and slow to adapt to change.

Alternatively, organizations may adopt a more decentralized or flat organizational structure, characterized by fewer levels of management and a greater emphasis on employee empowerment and decision-making autonomy. This structure fosters flexibility and innovation but may present challenges in maintaining coordination and control(Bekanwah, et al., 2020).Matrix structures combine elements of both hierarchical and decentralized structures, allowing employees to work across functional or project-based teams, while still reporting to a functional manager. This approach facilitates specialization and collaboration but can lead to role ambiguity and conflicting priorities.In recent years, organizations have also explored alternative structures such as network organizations, virtual teams, and sociocracy, each with its own advantages and challenges. Ultimately, the choice of organizational structure should align with the organization's goals, culture, and external environment, enabling it to effectively achieve its objectives while remaining adaptable to change.

Mechanistic Structure: A mechanistic structure is characterized by a high degree of formalization and centralization, with clear hierarchies, standardized procedures, and a rigid division of labour. This structure is typically found in stable environments where efficiency and predictability are crucial. Mechanistic structures rely on well-defined rules and procedures to ensure consistency and efficiency. For instance, manufacturing firms use standardized processes to maintain quality and reduce

variability, essential in industries where precision and reliability are paramount (Lee & Johnson, 2021). Decision-making authority is concentrated at the top levels of the organization, which can lead to more controlled and consistent strategic decisions, beneficial for minimizing risks and ensuring regulatory compliance (Smith, Brown, & Lewis, 2022).

Roles and responsibilities are clearly defined, leading to specialized job functions that significantly enhance efficiency in routine and repetitive tasks (Brown & Clark, 2023). These structures are particularly effective in stable environments where tasks are routine and technologies are well-established, enabling organizations to achieve high levels of operational efficiency and predictability (Martinez & Perez, 2023). Examples of contemporary applications include traditional manufacturing firms and healthcare organizations. In manufacturing, mechanistic structures are prevalent where production processes are highly standardized, such as in automotive manufacturing (Lee & Johnson, 2021). In healthcare, they ensure compliance with strict regulatory requirements and standardized patient care procedures, with centralized decision-making, managing resources and ensuring adherence to medical protocols (Smith et al., 2022).

Organic Structure: An organic structure is characterized by its flexibility, low degree of formalization, decentralized decision-making, and a more fluid and adaptable approach to organizational design. This type of structure is often found in dynamic environments where innovation, rapid response, and adaptability are crucial. Recent research underscores the importance of organic structures in fostering creativity, collaboration, and responsiveness in various organizational contexts.Organic structures are marked by flexible roles and responsibilities, which allow employees to adapt quickly to changing circumstances and contribute to multiple projects. This flexibility supports innovation and problem-solving, as individuals can collaborate across functions without rigid boundaries (Martin & Smith, 2021). The decentralized nature of organic structures empowers employees at all levels to make decisions, fostering a sense of ownership and accountability that enhances motivation and performance (Johnson & Lee, 2022).

In addition to flexibility and decentralization, organic structures emphasize open communication and collaboration. Informal communication channels facilitate the flow of information and ideas, enabling organizations to respond swiftly to external changes and internal challenges (Brown & Wilson, 2023). This open communication culture is particularly beneficial in industries that rely on knowledge sharing and collaborative problem-solving, such as technology and creative sectors (Garcia & Turner, 2023).Organic structures also promote continuous learning and adaptability. By encouraging experimentation and allowing for rapid adjustments, organizations can remain competitive in fast-paced environments. For example, tech startups often adopt organic structures to stay agile and innovative, continuously iterating on products and services based on market feedback (Chen & Zhang, 2020).Moreover, organic structures support a customer-centric approach by enabling closer alignment with market needs and customer preferences. By decentralizing decision-making, organizations can empower front-line employees to tailor services and solutions to meet specific customer demands effectively (Kim & Park, 2021). This customer-focused flexibility can significantly enhance customer satisfaction and loyalty, driving business success in competitive markets.

ADAPTABILITY

Adaptability in organizational contexts embodies the dynamic capacity to adjust and thrive in response to the ever-evolving internal and external environments (Cameron & Green, 2021). It encompasses a multifaceted ability to anticipate, initiate, and manage change effectively, thereby enabling organizations to maintain resilience and competitiveness amidst fluctuating markets and circumstances.Flexibility constitutes a pivotal aspect of adaptability, denoting an organization's

readiness and capability to modify strategies, processes, and structures in alignment with shifting contexts or emerging opportunities (Brown, 2011). Organizations adept at fostering flexibility can swiftly reallocate resources, adjust priorities, and pivot direction as warranted by changing circumstances, thus remaining agile and responsive.
Moreover, adaptability hinges on innovation, which entails the generation and implementation of novel ideas, products, or services tailored to evolving customer needs or market demands (Tushman & O'Reilly, 2008). Cultivating an innovative culture encourages creativity, experimentation, and continuous improvement among employees, thereby nurturing a fertile ground for adaptive responses to dynamic market landscapes.Resilience constitutes another integral dimension of adaptability, representing an organization's capacity to withstand and recover from setbacks, disruptions, or unforeseen events (Hillmann, & Guenther, 2021)). Resilient organizations proactively anticipate risks, develop contingency plans, and cultivate adaptive capabilities, thus enabling them to navigate adversity and uncertainty with resilience and resolve.

Further, agility underscores the importance of speed and responsiveness in organizational adaptation (Nethavhani, 2022).Agile organizations prioritize simplicity, collaboration, and iterative approaches to decision-making and problem-solving, empowering them to react swiftly and effectively to changing circumstances, while capitalizing on emerging opportunities.Adaptability also necessitates a learning orientation, reflecting an organizational commitment to continuous learning, reflection, and adaptation (Levinthal, 2016)). Learning-oriented organizations foster knowledge sharing, experimentation, and feedback loops, thereby nurturing a culture of continual learning and improvement that serves as a cornerstone for organizational adaptability.

Adaptive Capacity: Adaptive capacity refers to an organization's ability to respond effectively to changes in its internal and external environment by adjusting its strategies, structures, processes, and capabilities. Recent research underscores the importance of adaptive capacity in enabling organizations to thrive in complex and uncertain environments, where volatility, uncertainty, complexity, and ambiguity (VUCA) are prevalent.One key aspect of adaptive capacity is the organization's readiness to sense and interpret changes in its environment. This involves monitoring trends, gathering information, and analyzing data to anticipate emerging opportunities and threats (Johnson & Smith, 2023). Organizations with strong sensing capabilities can proactively identify potential disruptions and adjust their strategies accordingly, enhancing their resilience in turbulent times.

Another critical component of adaptive capacity is the organization's ability to mobilize resources and reallocate them effectively in response to changing circumstances. This requires flexibility in resource allocation, including financial resources, human capital, and technological capabilities (Brown & Wilson, 2023). By reallocating resources to areas of strategic importance, organizations can capitalize on emerging opportunities and mitigate risks more effectively.Furthermore, adaptive capacity relies on the organization's ability to learn and adapt over time. This involves fostering a culture of experimentation, innovation, and continuous improvement (Martinez & Perez, 2023). Organizations that encourage learning from both successes and failures can build resilience and agility, enabling them to navigate uncertainties and capitalize on emerging trends.

Moreover, collaboration and networking play a crucial role in enhancing adaptive capacity. By forming strategic partnerships, alliances, and networks with external stakeholders, organizations can access additional resources, expertise, and insights that complement their internal capabilities (Garcia & Turner, 2023). Collaborative approaches also facilitate knowledge sharing and co-creation,

enhancing the organization's capacity to innovate and adapt.Overall, adaptive capacity is essential for organizations seeking to thrive in an increasingly volatile and complex business environment. By enhancing their sensing capabilities, resource mobilization, learning processes, and collaboration efforts, organizations can build resilience, agility, and competitiveness in the face of uncertainty and change.

Vulnerability: Vulnerability, a multifaceted concept within psychology, encompasses an individual's susceptibility to physical, psychological, or social harm in the face of adverse circumstances or stressors. It is crucial in understanding various aspects of human behaviour, including resilience, coping mechanisms, and the development of mental health disorders. Recent research has shed light on the intricate interplay of factors contributing to vulnerability, highlighting the need for nuanced approaches in addressing and mitigating its impact.

One key aspect of vulnerability is its dynamic nature, influenced by a complex interaction of internal and external factors. Internal factors, such as genetic predispositions, personality traits, and cognitive processes, can shape an individual's vulnerability to stress and adversity (Masten & Narayan, 2022). For example, individuals with certain genetic vulnerabilities may be more prone to developing anxiety disorders when exposed to stressful life events (Chen et al., 2020). Additionally, psychological factors like low self-esteem or maladaptive coping strategies can exacerbate vulnerability by impairing one's ability to effectively navigate challenging situations (Vazquez & Nolen-Hoeksema, 2021).

External factors, including socio-economic status, social support networks, and environmental stressors, also play a significant role in determining vulnerability. Research has consistently shown that individuals from marginalized or disadvantaged backgrounds are at greater risk of experiencing adverse outcomes due to limited resources and increased exposure to stressors (Evans et al., 2023). Furthermore, social support networks, such as family, friends, and community organizations, can act as protective factors, buffering the negative effects of stress and promoting resilience (Thompson et al., 2024).

Understanding vulnerability is essential for developing targeted interventions aimed at promoting mental health and well-being. Recent studies have highlighted the effectiveness of interventions that focus on building resilience and strengthening coping strategies among vulnerable populations (Rutter, 2021). For example, cognitive-behavioral therapy (CBT) has been shown to be effective in reducing symptoms of anxiety and depression by targeting maladaptive thought patterns and behaviours (Hofmann et al., 2020). Additionally, community-based interventions that enhance social support networks and address socio-economic disparities have the potential to mitigate vulnerability and promote positive mental health outcomes (Fazel et al., 2022).

Theoretical Framework

CONTINGENCY THEORY

Contingency Theory, introduced by Joan Woodward in the 1950s, posits that the optimal organizational structure depends on internal and external factors rather than a one-size-fits-all approach (Woodward, 1958). This theory is crucial for understanding the adaptability of manufacturing firms, emphasizing that effective structures must align with the external environment. For instance, flexible and decentralized structures are beneficial in dynamic industries like high-tech manufacturing (Wang, 2021). Firms dealing with high task uncertainty and complexity should adopt organic structures, which are less formalized and more decentralized, fostering responsiveness and innovation (Smith & Lewis, 2020).

The type of manufacturing technology employed also influences organizational structure. Advanced automated technologies may require different approaches compared to traditional processes (Johnson, 2022). Additionally, larger firms might need more formalized structures to manage complexity while maintaining adaptability (Brown & Wilson, 2023). A practical example is a global electronics manufacturer decentralizing decision-making to enable regional units to adapt swiftly to local demands. Flexible work teams, reconfigurable as needed, are crucial for addressing specific problems or opportunities promptly (Martinez & Turner, 2021).

Lean manufacturing principles, focusing on eliminating waste and continuous improvement, support adaptability in uncertain environments (Lee et al., 2022). Modular organizational structures, where units operate semi-independently but align for strategic goals, facilitate adaptability without extensive changes (Taylor, 2023). Robust information systems enhance coordination and adaptability by enabling real-time decision-making and adjustments in manufacturing processes (Chen & Zhang, 2020). Toyota exemplifies this theory with its lean manufacturing system, aligning its structure with strategic priorities of quality, efficiency, and responsiveness (Kim et al., 2021). Thus, Contingency Theory provides a framework for aligning organizational structures with environmental, technological, and organizational factors to enhance performance in dynamic markets.

METHODOLOGY

The cross-sectional survey was used and a population of 362 managers and supervisors of 15 manufacturing firms was covered. A sample size of 186 managers and supervisors were drawn using Krejcie and Morgan (1970) table.The simple random sampling technique was employed and copies of questionnaire were utilized in gathering data for the study. Organizational structure was operationalized using mechanistic structure andorganic structure asMechanistic structure was measured using 5 items (e.g.Employees are expected to adhere strictly to predefined roles and procedures without deviation.) while organic structure was measured with 5 items (e.g.Roles and responsibilities within the organization are flexible and may evolve based on situational demands). Adaptability was measured using adaptive capacity andvulnerabilities as given. Adaptive capacity was measured using 5 items (e.g.The organization demonstrates agility in responding to changes in the external environment, such as market trends or technological advancements.) and 5 items were used in measuring vulnerabilities(e.g.The organization faces heightened risks due to inadequate contingency planning and reliance on single points of failure). The response was measured on a 4-point Likert scale and the data were analysed using Spearman rank correlation coefficient.

RESULTS

From the 186 copies distributed, only 178 were retrieved and well filled. The hypotheses test is undertaken at a 95% confidence interval. Hypothesis are rejected when $P < 0.05$ and accepted when $P > 0.05$.

Table 1: Mechanistic Structure andAdaptability

Correlations

			Mechanistic Structure	Adaptive capacity	Vulnerabilities
Spearman's rho	Mechanistic Structure	Correlation Coefficient	1.000	.655**	.567**
		Sig. (2-tailed)	.	.000	.000
		N	178	178	178
	Adaptive capacity	Correlation Coefficient	.655**	1.000	.512**
		Sig. (2-tailed)	.000	.	.000
		N	178	178	178
	Vulnerabilities	Correlation Coefficient	.567**	.512**	1.000
		Sig. (2-tailed)	.000	.000	.
		N	178	178	178

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

Mechanistic structure and Adaptive capacity.
The result of the data analysis reveals that at a significant level $p < 0.05$ ($0.000 < 0.05$), rho = 0.655**. The significance level of 0.000 is less than the alpha level of 0.05. The rho value of.655show a positive correlation between mechanistic structure and adaptive capacity. Therefore, the null hypothesis (Ho_1) is rejected. This proposes that mechanistic structure and adaptive capacity have a strong significant positive relationship.

Mechanistic structure and Vulnerabilities: The result of the data analysis reveals that at a significant level $p < 0.05$ ($0.000 < 0.05$), rho = .567**. This means that there is a significant positive association between mechanistic structure and vulnerabilities. The null hypothesis, Ho_2, is rejected and the alternate accepted.

Table 2: Organic structure andAdaptability

Correlations

			Organic Structure	Adaptive capacity	Vulnerabilities
Spearman's rho	Organic Structure	Correlation Coefficient	1.000	.578**	.595**
		Sig. (2-tailed)	.	.000	.000
		N	178	178	178
	Adaptive capacity	Correlation Coefficient	.578**	1.000	.512**
		Sig. (2-tailed)	.000	.	.000
		N	178	178	178
	Vulnerabilities	Correlation Coefficient	.595**	.512**	1.000

	Sig. (2-tailed)	.000	.000	.
	N	178	178	178

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

Organic structure and Adaptive capacity.

The result of the data analysis in table 2 reveals that at a significant level $p < 0.05$ ($0.000 < 0.05$), rho = 0.578**. The significance level of 0.000 is less than the alpha level of 0.05. The rho value of.578 shows a positive correlation between organic structure and adaptive capacity. Therefore, the null hypothesis (Ho_3) is rejected. This proposes that organic structure and adaptive capacity have a strong significant positive relationship.

Mechanistic structure and Vulnerabilities: The result of the data analysis reveals that at a significant level $p < 0.05$ ($0.000 < 0.05$), rho =.595**. This means that there is a significant positive association between mechanistic structure and vulnerabilities. The null hypothesis, Ho_4, is rejected and the alternate accepted.

DISCUSSION OF FINDINGS

The test of hypotheses one and two revealed that mechanistic structure is positively correlated with the adaptability (adaptive capacity and vulnerabilities) in manufacturing firms in Rivers State. The positive correlation between mechanistic structure and adaptability in manufacturing firms in Rivers State implies that firms with defined and rigid organizational structures tend to be more adaptable. This structure enhances control, coordination, and decision-making, leading to efficient responses to changes. It provides stability and predictability, helping manage vulnerabilities and maintain operational continuity. Clear processes facilitate implementing changes and efficient resource allocation, supporting adaptive capacity. However, firms should balance mechanistic elements with flexibility to foster creativity and long-term adaptability.This is in line

The results of testing hypotheses three showed a moderate positive correlation between organic structure and adaptability (adaptive capacity and vulnerabilities) in manufacturing firms in Rivers State.The moderate positive correlation between organic structure and adaptability(adaptive capacity and vulnerabilities) in manufacturing firms in Rivers State implies that firms with more flexible and decentralized organizational structures tend to be reasonably adaptable. These structures support open communication, collaboration, and innovation, enabling firms to respond to changes and manage vulnerabilities more effectively. However, the correlation is moderate, suggesting that while an organic structure contributes to adaptability, other factors also play significant roles in determining a firm's adaptive capacity and resilience.The flexibility of organic structures allows for quick adjustments and creative problem-solving, enhancing the firm's overall adaptive capacity and resilience in a dynamic environment.

CONCLUSION

This study examined the relationship between organizational structure and adaptability in manufacturing firms in Rivers State. The findings highlighted how different structures impact adaptive capacity and vulnerability.A positive correlation exists between mechanistic structure and adaptive capacity, indicating that firms with clear hierarchies and standardized procedures are better at managing and responding to environmental changes. Additionally, mechanistic structures help reduce vulnerabilities by providing stability and predictability, thus maintaining operational continuity during disruptions.

Conversely, a moderate positive correlation is found between organic structure and adaptive capacity. Firms with flexible and decentralized structures, which encourage open communication and collaboration, tend to be more innovative and responsive to changes. Organic structures also help manage vulnerabilities by facilitating quick adjustments and effective problem-solving. Both mechanistic and organic structures contribute to the adaptability of manufacturing firms in Rivers State. Mechanistic structures provide control and stability, essential for managing adaptive capacity and vulnerabilities, while organic structures offer flexibility and innovation, crucial for swift responsiveness and resilience. Balancing these elements are keys to optimizing adaptability in a dynamic manufacturing environment.

RECOMMENDATIONS

1. Manufacturing firms should enhance their mechanistic structures by implementing more standardized procedures and clearer hierarchies, to improve their adaptive capacity, allowing them to manage and respond to changes more efficiently. Training programs focused on process optimization and role clarity can further bolster this adaptive capacity.
2. Firms should leverage the stability and predictability offered by mechanistic structures. And establishing robust risk management protocols and clear contingency plans that will help maintain operational continuity during disruptions.
3. Firms should incorporate more organic elements into their structures to boost adaptive capacity and encouraging open communication, fostering a collaborative culture, and promoting innovation that can make firms more responsive to changes, as implementing cross-functional teams and regular brainstorming sessions can help harness diverse perspectives and creative solutions.
4. Firms should emphasize flexibility and decentralization and create an environment that supports quick decision-making and adaptability to handle uncertainties more effectively. Providing autonomy to teams and encouraging a proactive approach to problem-solving can enhance the firm's resilience to unexpected challenges.

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