International Journal of Business, Economics and Entrepreneurship Development in Africa



Volume 13, Issue 11, PP 108-122, ISSN: 2360-9402, September, 2023, DOI: 83700381-93213111 Double Blind Peer Reviewed International Research Journal http://arcnjournals.org arcnjournals@gmail.com ©Africa Research Corps Network (ARCN)

External Environment Dynamism and Organizational Adaptability of Manufacturing Firms in Rivers State

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Abstract: The study investigates the relationship between external environmental dynamism and organizational adaptability of the manufacturing firms in Rivers State. A survey of 232 managers and supervisors of 12 manufacturing firms in Rivers state constitutes the population. A sample size of 144 was derived using Krejci and Morgan's 1970 table. The simple random sampling technique was used in this study. A structured questionnaire was distributed to the sample elements. The independent variable (external environmental dynamism) was operationalized with market dynamism and technological dynamism. The dependent variable (adaptability) was measured with flexibility and responsiveness. The Spearman rank order correlation coefficient was used for the analyses. The findings reveal a significant correlation between the dimensions of external environmental dynamism and measures of organizational adaptability of the manufacturing firms in Rivers State. The study recommends that manufacturing firms should be flexible and responsive to market and technological opportunities, which can lead to positive changes in a company's strategic position and develop the absorptive capacity to absorb external knowledge and information and use it to adapt to changes in the environment.

Keywords: Environmental Dynamism, Market Dynamism, Technological Dynamism Organizational Adaptability, Flexibility, Responsiveness.

Published by: Africa Research Corps Network (ARCN)

in Collaboration with: International Academic Journal for Global Research (iajgr) Publishing (USA)



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INTRODUCTION

Environmental changes and other pressures are bringing continuous changes in organizations, which require adapting more often and more quickly than ever before. The dynamic changes in the external environment place every firm in front of serious new and unknown challenges and make it more difficult to adapt to them. Under these conditions known traditional short-term models of corporate behaviour have an increasingly limited role and a chance for success. Some organizations have demonstrated the ability to adapt quickly enough to these environmental changes, although there are many cases that provide a glimpse of hope (Park, 2020). This made it increasingly clear that the ability to sense change and strategically adapt to it quickly is more important than ever and the organizations need an understanding of how to survive and thrive amid rising disruption and uncertainty.

Today, no industry or company is safe from disruption, but many organizations are not prepared to adapt quickly enough to survive accelerating change and long-term success in a changing environment requires prioritizing adaptability as a must-have organizational trait in the firm, as industries can no longer rely on old-style measures of business fitness, but must change their perspective and transform quickly and at scale to become adaptable today to survive tomorrow (Park, 2020). To succeed and thrive, organizations must adapt, exploit, and fit with the forces in their external environments (Wade Joshi & Teracino, 2021). Strategic behaviour at a workplace is seen as the role and influence of the dynamics of the external environment, and the development and change of firm resources and competencies under the influence of external changes which makes organization to seek the source of competitive advantage in their environmental factors which both the internal factors/resources (technology, workforce qualification, raw materials and materials used, innovation, financial resources and organizational structure) and external factors (market dynamics and structure, level of concentration and competition, vertical links, supply and demand dynamics, etc.), and the ability to combine the development of external and internal factors/resources to ensure the fulfillment of its goals (Marichova. 2019).

Finding methods to deal with the environment makes sense, although complex and chaotic it can be desirable, but many businesses are unclear of how to handle them. Many individuals think it is impossible to establish a causal relationship between environmental variables and managerial behaviour because of the diversity of variables and the chaotic nature of environments (Windsor, 1995). The connection of an organization and its surroundings, however, has recently been highlighted in studies (Polonsky et al., 1999). The ability of firms to have an environmental influence is greater than previously thought because they co-exist and change with their environs (Brooks and Weatherston, 1997). Organizations exert some control over a portion of their environments by influencing their industries or working together to create those settings. As a result, the firm can have an impact on the environment in addition to outside factors (Anderson et al., 1994, cited in Ford, 1997).

According to Marichova (2019), the simultaneous monitoring and evaluation of both the external and internal environment allow an assessment of the firm's ability to respond to external changes with its existing potential, either by expanding it or by creating new configurations, but

monitoring the external environment alone is not enough, as the need for change might be caused by dissatisfaction with company positions and current state of resources, and therefore, even if a company has significant assets (resources) and competences, if it operates on the same scale every day, produces the same product, sells the same in the same market, to the same customers, it can only realize short-term advantage on the basis of realized operational efficiency.

Several studies have been made on adaptability, the external environment, and the influence of the dynamics of the external environment, but the dearth of an empirical study on external environment dynamism and organizational adaptability of manufacturing firms in Rivers State motivates this study. This study bridges the gap by examining the influence of external environment dynamism and organizational adaptability, as related to the manufacturing firms in Rivers State. This study is concerned with how organizations fit with their external environments and how organizations are able to adapt to the challenges and opportunities of these environments.

STATEMENT OF PROBLEMS

Changes in demand and technology are shortening the product life cycle, increasing global competition, increasing the dynamics of the external environment, lowering the value of the company's created strategic resource, and creating the conditions for the development, change, and creation of a new strategic company resource. The solution to change and the search for wholly new development opportunities is the most challenging problem confronting any firm with extremely high risk.

Organizational adaptation to environmental changes in Nigeria's industrial sector has been generally poor and cause for concern (Asikhia & Binuyo, 2012), with many enterprises facing significant resource and institutional constraints, as well as issues with the dynamics of their external environment. There is inefficient and ineffective development of an effective monitoring system, incorrect assessment of development opportunities and threats, insufficient forecasting of expected changes in the external environment, and insufficient accumulation of knowledge, learning, and developing strategic responses to changes.

Meinel and Schüle (2018) argue that the environmental dynamic exposes manufacturing firms to a variety of risks. Studies have looked into the causes of industry non-adaptation, however the examined barriers are typically not problem-specific, and surveys have indicated that even when managers perceive no hurdles to adaptation, strategic modifications may still be avoided. Strategic adaptations are anticipatory and goal-oriented actions that aim to increase resistance to environmental volatility. The current research will focus on the influence of environmental dynamism on the organizational adaptability of Rivers State's manufacturing enterprises.

Aim and Objectives

The study investigates the relationship between external environment dynamism and organizational adaptability of manufacturing firms in Rivers State. Specifically. It determines the association between:

1. Market dynamics and flexibilities of the of manufacturing firms in Rivers State.

- 2. Market dynamics and responsiveness of the of manufacturing firms in Rivers State.
- 3. Technological dynamics and flexibilities of the of manufacturing firms in Rivers State.
- 4. Technological dynamics and responsiveness of the of manufacturing firms in Rivers State.

Research Questions

- 1. How do market dynamics relate to the flexibilities of the manufacturing firms in Rivers State?
- 2. What is the relationship between market dynamics and responsiveness of the manufacturing firms in Rivers State?
- 3. What is the relationship between technological dynamics and flexibilities of the manufacturing firms in Rivers State?
- 4. How do technological dynamics relate to responsiveness of the manufacturing firms in Rivers State?

RESEARCH HYPOTHESIS

- Ho₁: There is no significant relationship between market dynamics and flexibilities of the of manufacturing firms in Rivers State.
- Ho₂: There is no significant relationship between market dynamics and responsiveness of the of manufacturing firms in Rivers State.
- Ho₃: There is no significant relationship between technological dynamics and flexibilities of the manufacturing firms in Rivers State.
- Ho₄: There is no significant relationship between technological dynamics and responsiveness of the manufacturing firms in Rivers State.

REVIEW OF RELATED LITERATURE

Conceptual Framework



Source: Conceptualized by the Researchers.

Figure1: A conceptual framework of external environment dynamism and organizational adaptability of manufacturing firms in Rivers State.

The study is anchored on uncertainty absorption theory. The uncertainty absorption theory was formulated by march and Oslem (1976). The theory explains how firms can absorb and adapt to external environmental dynamism. It suggests that firms can develop absorptive capacity to absorb external knowledge and information and use it to adapt to changes in the environment, In the context of manufacturing firms, uncertainty absorption theory suggests that firms can develop absorptive capacity to absorb external knowledge and information absorption theory suggests that firms can develop absorptive capacity to absorb external knowledge and information about changes in the environment and use it to adapt their manufacturing processes.

ENVIRONMENT DYNAMISM

Dynamism is a concept used to describe how unpredictable or volatile the environment is, and it has a positive relationship to uncertainty (Boyd & Gove, 2006). Environmental dynamism is a generic term that describes the rate of change and the level of variable instability in a certain context. A few examples of dynamism include technological change, which affects how production processes are carried out; customer preference changes, which affect how products are marketed; market competition, which affects how marketing activities are carried out; and changes in foreign exchange or economic policy, which affect how investment plans are carried out. All of these combined to create an unstable or unpredictable environment.

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The rate of change and instability in the environment is referred to as environmental dynamism. Dynamic refers to the ability to act or change. The term "dynamic environment" also refers to changes in market components such as client preferences, disruptive technology, and the intensity of escalating competition. Management theorists have investigated the increased role of the external environment in assisting organizations in seizing opportunities through dynamic capabilities (Teece et al., 2007). According to research, the high levels of adaptability qualities displayed by organizations may be a result of increased environmental dynamism, which has to be investigated. Gibson and Birkinshaw (2004) shared similar views, stating that future research should investigate the adaptability relationship with the level of dynamism in the corporate environment. Environmental dynamism is defined by Miller (1983) as the frequency, volume, and irregularity of competitor changes, customer preferences, manufacturing technologies or services, and competitive practises in important businesses, and determining the surroundings is a subjective method.

Instability, turbulence, the extent and predictability of changes in consumer preferences, manufacturing or service technology, and the ability to compete in significant areas are all examples of environmental dynamism. Businesses in the same industry have the same entry and output markets, as well as the similar technological aspects that define their environment (Karna et al. 2016). Environmental dynamism refers to the external environment's unpredictability, volatility, and instability. Ambiguity caused by environmental dynamism leads to difficult-to-understand cause-and-effect relationships.

The term "external environment" refers to all outside forces and influences that have an effect on a business' operations and that need to be addressed or dealt with in order for the business' operations to proceed. Examples of such forces and contexts include sociocultural, technical, economic, governmental, and political pressures, as well as natural disasters and crises brought on by humans. Economic environmental forces include things like wages and exchange rates, employment statistics, and associated things like recessions, politics and governmental policies, natural disasters, technology breakthroughs, and sociocultural pressures. The hiring and unemployment rates, employee benefits, organizational operational costs, sales, and profits are all impacted by the local, national, regional, and global economies. Organizations frequently engage in strategic planning as they adapt to their external environments in order to assess the external environment, identify their strengths and weaknesses, and create a response to the environment in the form of services that are likely to resonate favourably with the environment (Alkhafaji, 2003; Allison & Kaye, 2005; Andreasen & Kotler, 2003; Peter & Donnelly, 2004).

The level of uncertainty changes depending on the surroundings. The degree of uncertainty in the environment measures managers' ability to perceive or predict external events and trends affecting their companies. The rate of change and the degree of complexity influence the level of environmental uncertainty. A two-dimensional model developed by Robbins and Coulter in 2002 is used to characterise environmental uncertainty. The simple-to-complex dimension of the environment is concerned with whether the environmental factors considered for decision-making are few and similar or numerous and different; the stable-to-changing dimension of the

environment is concerned with whether the environmental factors remain constant or change over time.

Market Dynamics

A societal institution known as the market enables economic actors to coordinate their actions through voluntary exchange. Market dynamics are the procedures that have an impact on prices and the actions of consumers and producers (Corporate Finance Institute, 2023), the unpredictability of customer tastes and demographics change. Prices, as well as producer and customer behaviour, are affected by market dynamics (Banton, 2021). These factors influence the supply and demand for a particular good or service in a market, which produces pricing signals. Any sector or government policy can be impacted by market dynamics.

Supply and demand curves are influenced by market dynamics, to form the basis of numerous economic models and theories. Policymakers aim to discover the optimal approach to employ and different financial tools to use in promoting an economy since market dynamics affect supply and demand curves (Banton, 2021). Market changes have an effect on supply and demand as well as the economy's overall trajectory. The supply-side theory and demand-side base are two fundamental economic methods when it comes to altering supply or demand in an economy with the ultimate goal of positively affecting the economy. Before making any investments or business decisions, market dynamics must be regularly assessed because they are not consistent but rather constantly changing.

Technological Dynamics

Technology is the understanding of how to produce goods and give services. Technologies are getting more complicated and interconnected as more equipment, medical gadgets, financial transactions, and power systems rely on computer software than ever before. This high dependency makes technology appear more difficult to regulate and comprehend, and stakeholders and information processing rely largely on digital technologies and artificial intelligence, which require less human involvement (Wolff, 2021).

Both "internal factors" and "external factors" have an impact on the technological transition process. External factors link technological change to a variety of changing social environment aspects where a given technology is embedded, whereas internal variables link it to unresolved technical challenges and established means of resolving those concerns. Studies of technology dynamics frequently argue that technologies are not "self-evident" or "market-demanded," but rather the product of a certain path of technological development and are influenced by social, economic, and political forces.

According to Flavio and Chiara (2022), transitions to a digital and information economy pose three main challenges for businesses. The first is the growing significance of intangible assets in industrial processes, such as R & D, software, and other intellectual property. The second factor is the increasing value of tacit knowledge. The third reason is rising technical complexity, which needs more sophisticated complementary expenditures on worker skills and organizational innovation. Technology dynamics seeks to overcome different "internal" and "external" frames

of view by proposing a co-evolutionary approach to technology development (Wikipedia, 2023), Policymakers must also address how individuals might develop the digital skills and talents required to embrace and integrate cutting-edge technologies into nations' current manufacturing bases.

ADAPTABILITY

A company's ability to recognize and seize new market and technological opportunities, which leads to changes in a company's strategic stance, is what is meant by adaptability. "Change that enables the capacity to thrive" and "mobilising people to tackle difficult challenges and thrive" are two concepts related to adaptability. Adaptive leadership is compared to the biological idea of a thriving organism by Hiefetz, Grashow, and Linsky (2009), who also link enhanced organizational growth and value to thriving. Although it does not describe adaptability as such, the word "projected" is used in certain formulations (Tillson et al., 2005) to imply that adaptability is proactive in nature.

Boylan and Turner (2017) assert that the absence of innovation, creativity, and the capacity to foresee changes in some definitions reveals gaps in the definitions, which is significant, and they propose that these characteristics should be included in a thorough definition of adaptability because they are crucial for coming up with novel solutions to problems. Based on this, Boylan and Turner (2017) describe adaptability as a shift in behaviour characterised by original or imaginative solutions used in anticipation of or in response to environmental changes that are suitable for solving issues. An adaptive leader foresees issues and creates alternate solutions to a wide variety of potential outcomes while evaluating and reacting to the constantly shifting environment. Adaptability is both proactive and reactive. Employees who are more adaptable at work are more valued, better leaders, happier, more relevant, better equipped, and readier to handle challenges and adjust to changing careers. By fostering a culture of active listening, stepping outside of your comfort zone, being open to learning from mistakes, asking questions, being upbeat and finding a work-life balance, and using practical emotional intelligence, organizations can help employees become more adaptable at work (Indeed Editorial Team, 2023). Adaptability promotes the ability to be vulnerable and sympathetic with others, as well as the ability to display compassionate leadership and transform hard interpersonal situations into opportunities for relationship-building (Bromley et al., 2021). It facilitates communication with others by normalising the importance of solid professional relationships and providing the means to maintain them.

Flexibility

Flexibility, according to Sethi and Sethi (1990), is a complicated and multidimensional concept.. The ability of an organization to foresee, adapt, or react to external change is reflected in its organizational flexibility (Volverda, 1998; Bueno, 1996). Flexibility entails managing invention resources as well as the ambiguity of meeting various client needs (Zhang, Vonderembse, and Lim, 2003). A flexible firm can make adjustments, respond to change proactively and deal with uncertainty with little time, effort, or money. Organizational flexibility includes organizations' ability to put in place or adjust processes and organizational structure and relates to organizations' strategy implementation practices, Zhang, Vonderembse, & Lim (2003) describe organizational flexibility as the company's capacity to manage production resources and the uncertainty of meeting a variety of client demands. A flexible organization can respond to change, manage uncertainty, and make modifications with little time, price, or effort. The sort of job and the amount of employee feedback required will determine how flexible a company may be. This prompted some businesses to adopt a hybrid workforce model, while others let workers choose their own schedules within predetermined parameters. Workplace flexibility means that employees can collaborate with their supervisors to create a schedule that is appropriate for their job and duties. According to Weick (1982), flexibility is required to adapt non-transitional changes to current practises. This implies that the organization must identify changes and maintain an adequate supply of original reactions to these changes.

Responsiveness

Organizational responsiveness is a company's ability to comprehend its complex relationship with the outside environment through noticing, interpreting, and acting proactively to challenges (Schilling, 2000). According to Huber (2004), organizational responsiveness is determined by the collective sensing effort of all organizational members. This is similarly based on modular organising, as explained by Sanchez and Collins (2001), which is the merging of autonomous organizational components into customised constellations (Sanchez, 2003; Schilling, 2000; Worren, Moore, & Cardona, 2002). According to Sanchez and Collins (2001), the primary benefit of this modularization is increased organizational flexibility without jeopardizing performance.

According to Hult et al. (2005), organizational responsiveness can be defined as a company's inclination to act on information created about the market. According to Kohli and Jaworski (1990), who take the perspective of the market information process, organizational responsiveness is related to information use within the organization and is made up of two sets of activities: response design and response implementation. Response design involves using market intelligence to develop plans, while response implementation entails using market intelligence to carry out such plans. Additionally, Kohli and Jaworski (1990) identified a number of concrete examples of organizational responsiveness, such as choosing target markets, developing and providing goods and services that address customers' present and future needs, and manufacturing, distributing, and promoting the goods in a way that prompts positive responses from final consumers. By affecting what is noticed, how this information is understood, and the reasons behind certain decisions, managerial cognition and behaviour help connect a company's actions to a changing environment (Kaplan 2008). According to this point of view, market scenario research and actual responses are the first two steps in an organization's responsiveness process (Chattopadhyay, Glick, & Huber, 2001; White et al., 2003).

Empirical Review

Gong, Le, Zhang, Chen, and Zeng (2021) study the external alignment of exploratory and exploitative organizational practices with environmental dynamism and the internal alignment with absorptive ability. The study's findings indicate that a stable environment favours organization with a high exploitation and low exploration practice strategy; that environmental

dynamism inhibits the impact of both exploitative and exploratory practices on organizational adaptability; and that organizational absorptive capacity significantly reinforces the link between the intensity environmental dynamism and organizational adaptability.

In respect to employees' commitment to change, Mangundjaya Wustari (2014) identifies the function and contribution of employees' perceptions of the external environment and internal organization. Using organizational trust and organizational task environment as data collection instruments, the study was conducted at financial state-owned organizations with 539 respondents. According to the study, employees' perceptions of their internal organization and the outside world both have positive and substantial relationships with their willingness to embrace change. The findings also indicated that, in comparison to the organizational task environment, organizational trust contributes more to the willingness to change.

The relationship between environmental dynamism, competitive strategy, and nonfinancial performance of manufacturing enterprises in Nigeria was examined by Idowu (2017). Cross-sectional survey research design was used. Strategic managers at the chosen 70 manufacturing companies in Lagos State, Nigeria, were surveyed to gather primary data. Descriptive statistics and inferential statistics were used to comprehensively evaluate the data. The findings demonstrated a favourable and significant link between environmental dynamism, competitive strategy, and non-financial performance.

Obamen, Omonona, Oni, and Ohunyeye (2021) assessed the impact of environmental management practise instruments on the sustainability of manufacturing organizations. A survey design was used in the investigation. A total of 363 questionnaires were distributed to personnel in the manufacturing industry, including managers, supervisors, and line workers. The data was analysed using Principal Component Analysis (PCA). The study discovered that environmental management practice instruments were significantly and positively connected with sustainability, as they contribute to the social, economic, and environmental sustainability of businesses.

Omimakinde and Dickson (2022) investigated the impact of environmental dynamism on the liquidity position of Nigerian food processing enterprises. The study especially examined the effect of environmental dynamism on the selected food processing enterprises' current ratio, quick ratio, and cash ratio. Secondary data obtained from yearly financial reports of selected corporations published on the Nigeria Stock Exchange database between 2016 and 2020. To test all hypotheses, this study used Pearson correlation analysis and OLS linear regression analysis to assess the data acquired. Environmental dynamism (ED) has a favourable effect on all dependent variables, according to the findings. According to the findings of this study, environmental dynamism has a favourable impact on the liquidity situation of Nigerian food processing enterprises.

Tamunomiebi and Green-Soprinye (2020) investigate the connection between organizational mindfulness and responsiveness. According to the findings, the collective sense of awareness and consciousness employed in the organization's everyday duties and operations goes a long way

towards guaranteeing that the organization is able to successfully respond and handle the changing and developing expectations of its surroundings.

METHODOLOGY

A cross-sectional survey design which is a type of quasi-experimental design was used to attain the objectives in the study. A population of 232 managers and supervisors of 12 manufacturing firms in Rivers state were used was used. krejcie Morgan's 1970 table for sample size determination was used to arrive at a sample size of 144. The simple random sampling technique was used in this study. A structured questionnaire was distributed to the sample elements. The independent variable (external environmental dynamism) was operationalized with market dynamism and technological dynamism. The dependent variable (adaptability) was measured with flexibility and responsiveness. Each construct was measured with 6 items. The Cronbach alpha was utilized to determine the reliability of the variable. The questionnaire Items were rated on a 4-point Likert scale from 1-strongly disagreed, 2-disagree, 3-agree, and 4-strongly agreed. The Spearman rank order correlation coefficient was used in analyzing the earlier state hypotheses.

RESULT

144-questionnaire was distributed, but only 140(97.2%) copies were returned. The hypotheses test is undertaken at a 95% confidence interval and the decision rule is stated below. Where P < 0.05 = Reject the null hypotheses

Where P > 0.05 = Accept the null hypotheses

			Market Dynamism	Flexibility	Responsiveness			
Spearman's rho	Market Dynamism	Correlation Coefficient	1.000	.840**	.825**			
		Sig. (2-tailed)		.000	.000			
		Ν	140	140	140			
		Correlation Coefficient	.840**	1.000	.736**			
		Sig. (2-tailed)	.000		.000			
	Flexibility	Ν	140	140	140			
		Correlation Coefficient	.825**	.736**	1.000			
		Sig. (2-tailed)	.000	.000				
	Responsiveness	Ν	140	140	140			

Table 1: Correlations between market dynamism and dimensions of adaptability

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

Source: SPSS Output, 2023.

Market Dynamism and Flexibility: Column five of Table 1 above shows a rho value of 0.840^{**} at a significance level of 0.000 which is less than the chosen alpha level of 0.05 for the hypothesis relating market dynamism and flexibility. Since the significance value is less than 0.05, the null hypothesis (Ho₁) which states that there is no significant relationship between market dynamism and flexibility is rejected and the alternate hypothesis is accepted. This implies that there is a strong significant positive relationship between market dynamism and flexibility.

Market Dynamism and Responsiveness: Column six of Table 1 above reveals a rho value of 0.825^{**} at a significance level of 0.000, which is less than the alpha level of 0.05 chosen for the market dynamism and responsiveness hypothesis. The null hypothesis (Ho₂), which claims that there is no significant association between market dynamism and responsiveness, is rejected because the significance value is less than the alpha level of 0.05, and the alternate hypothesis is accepted. This implies that market dynamism and responsiveness have a highly significant positive relationship.

			Technological Dynamism	Flexibility	Responsiveness
Spearman's rho	Technological Dynamism	Correlation Coefficient	1.000	.855**	.845**
		Sig. (2-tailed)		.000	.000
		Ν	140	140	140
	Flexibility	Correlation Coefficient	.855**	1.000	.785**
		Sig. (2-tailed)	.000		.000
		Ν	140	140	140
	Responsiveness	Correlation Coefficient	.845**	.785**	1.000
		Sig. (2-tailed)	.000	.000	
		Ν	140	140	140

Table 2: Correlations between technological dynamism and thedimension of adaptability

**. Correlation is significant at the 0.01 level (2-tailed). Source: SPSS Output, 2023.

Technological dynamism and Flexibility: Column 5 of Table 2 reveals a rho value of 0.855** at a significance level of 0.000, which is less than the alpha level of 0.05 chosen for the hypothesis level relating technological dynamism to flexibility. The null hypothesis (Ho₃), which claims that there is no significant relationship between technological dynamism and flexibility, is rejected since the significance value is less than 0.05, and the alternate hypothesis is accepted. This means that technological dynamisms have a highly significant positive association with flexibility.

Technological dynamism and Responsiveness: Column six of Table 2 above shows a rho value of 0.845^{**} at a significance level of 0.000 which is less than the chosen alpha level of 0.05 for the hypothesis relating to technological dynamism and responsiveness Since the significance value is less than the alpha level of 0.05, the null hypothesis (Ho₄) which states that there is no significant relationship between technological dynamism and Responsiveness is rejected and the alternate hypothesis is accepted. This implies that there is a strong significant positive relationship between technological dynamism.

DISCUSSION OF FINDINGS

The data analysis above depicts that external environmental dynamism in terms of market dynamism and technological dynamism has a connection with adaptability. The discussions of each hypothesis are specified below.

Market Dynamism and Flexibility

The results of the data analysis in Table 1 showed a strong relationship between market dynamism and flexibility. The P-value of 0.000 demonstrates a strong positive relationship existence between market dynamism and flexibility, and the rho value of 0.840 demonstrates a strong positive connection between the variables. The result agrees with Idowu (2017), whose findings demonstrated a favourable and significant link between environmental dynamism, competitive strategy, and non-financial performance. The finding is consistent with Obamen, et al., (2021) whose finding reveals a significant relationship between environmental management practice instruments and the sustainability of manufacturing organizations.

Market Dynamism and Responsiveness

The hypothesis 2 analysis in Table 1 showed a positive strong significant correlation between Market dynamism and responsiveness. The P-value of 0.000, and the rho value of 0.825 demonstrates a strong positive link between market dynamism and responsiveness. The report agrees with Gong, et al., (2021) whose findings indicate that a stable environment favours an organization with high exploitation and that organizational responsiveness and absorptive capacity significantly reinforce the link between the intensity environmental dynamism and organizational adaptability.

Technological Dynamism and Flexibility

The results in Table 2 revealed that technological dynamism relate significantly to flexibility. The correlation among the variables signifies that technological dynamisms can improve flexibility. The P-value of 0.000 shows that technological dynamism relates to flexibility, while the rho value of 0.855 shows a strong positive correlational value among the variables. This result is consistent with that of Omimakinde and Dickson (2022) whose findings shows a significant relationship between environmental dynamism and the liquidity position of Nigerian food processing enterprises.

Technological dynamism and Responsiveness

The analysis presented in Table 2 revealed that technological dynamism relates significantly to responsiveness. The P-value of 0.000 shows that technological dynamism relates to responsiveness, while the rho value of 0.845 shows a high positive correlational value among the variables. This finding agrees with Tamunomiebi and Green-Soprinye (2020) whose findings reveal that the collective sense of awareness and consciousness employed in the organization's everyday duties and operations goes a long way towards guaranteeing that the organization is able to successfully respond and handle the changing and developing technological and market risks expectations in its environment.

CONCLUSION

The study examines the external environmental dynamism and adaptability of manufacturing firms in Rivers State, Nigeria. The study found a strong correlation between external environmental dynamism and the adaptability of manufacturing firms in Rivers State. The external environment is highly turbulent, volatile, and constantly changing, the ability to adapt to

this external dynamism determines the success and growth of the firms. The study finds a relationship between the dimensions of external environmental dynamism and the measure of adaptability. The study concludes that a relationship exists between external environmental dynamism in terms of market dynamism and technological dynamism relates to the adaptability of the manufacturing firms in Rivers State

RECOMMENDATIONS

- 1. The manufacturing firms should develop the absorptive capacity to absorb external knowledge and information and use it to adapt to changes in the environment.
- 2. The manufacturing firms should continuously evaluate the organization's adaptability to external environmental dynamism for optimal target achievement
- 3. The manufacturing firms should be prepared to adapt quickly enough to survive accelerating change and long-term success in a changing environment.
- 4. The manufacturing firms should be flexible, responsive ecologically friendly, and implement the right environmental tools required by law.
- 5. The manufacturing firms should be flexible and responsive to market and technological opportunities, which can lead to positive changes in a company's strategic position.
- 6. Manufacturing firms should search for new development opportunities with little extremely high risk from the environment.

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