

Competitive Intelligence and Organisational Resilience of Food and Beverages Firm in Rivers State

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Abstract: *The study ascertain the relationship between competitive intelligence and resilience of the food and beverage firms in Rivers State. The study used a survey design and a total of one hundred and twenty-seven (127) managers of different food and beverage firms were covered. The study was a census study. The Spearman Rank Order was used to analyze and test the formulated hypotheses. From the results generated, there exist a significant and positive correlation between the dimensions of competitive intelligence (technological and market intelligence) and the measures of resilience (adaptability and career resilience). In conclusion, competitive intelligence is related to resilience of the food and beverage firms in Rivers State. The study recommends using technological and market intelligence to enhance the firm's resilience.*

Keywords: *Competitive Intelligence, Technological Intelligence, Market Intelligence, Resilience, Adaptability, Robustness.*

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1.0 Introduction

The business environment has been characterized by violent competition, environmental changes, high dynamism, technological advancement, and global flexibility in business activities, and the need for resilience has become critical, particularly with the recent outbreak of COVID-19, which has affected many firms across industries. For organizations to be resilient, business enterprises must be conscious and knowledgeable of their competitive environment, as a firm's survival goes beyond fitness, but also its ability to be resilient in responding to unforeseen events and rivals' competitive advantages.

Resilience has been used in several field of study, most especially in Business and management (Sutcliffe and Vogus, 2003), disaster management (Manyena, 2006), engineering (Hollnagel et al., 2006), psychology (Bonanno, 2004), ecology (Walker et al., 2004) sociology (Adger, 2000), and in the studies of entrepreneurial individuals and organisations (Luthar et al., 2000; Walker et al.,

2004). Uncertainty abound in the clarification of the linkages among related concepts such as resiliency, adaptability, transformability, and vulnerability, as the definitions of these concepts and boundaries between these concepts remain ambiguous (Callo-Concha and Ewert, 2014), however the capacity of an organization to survive competition, turbulences in its internal and external environmental lies on its competitive intelligence efficiency.

Competitive intelligence (CI) is the process and forward-looking practices used in producing knowledge about the competitive environment to improve organizational resilience and performance. It involves the systematic collection and analysis of information from multiple sources, and a coordinated competitive intelligence program. Information about competition are nowadays critical component for both, tactical and strategic decision making of every firm. Building information system that supports the management and decision-making, and that can be a source of competitive advantage, is not an easy task. Most firms struggle to capitalize on possibilities for competitive advantage, recognize and anticipate their competitors' strategies, and plan their own business strategies in order to exceed their competitors' plans and remain resilient in their commercial operations. Competitive advantage is heavily reliant on utilizing the firm's knowledge assets while also predicting how competitors would leverage theirs and gain an advantage via improving internal and external adaptation.

Turbulent competition, information development and technological advancement has transformed business activities, with every organisation weary of strengths and opportunities that can improve their business and desiring more awareness in competitive intelligence too be resilient in turbulent time. Hence getting quality and useful information about competitive advantage strategies through integrated and intelligent competitive system to provides critical informational support to both tactical and strategic decision-making, in the modern competitive struggles is of high importance. Although several studies have being made on resilience and competitive intelligence respectively, the dearth of empirical study on competitive intelligence and organisational resilience of food and beverages firm in Rivers State necessitate this study, hence this study will bridge the gap.

Statement of problems.

In recent years, there has been an increase in the insecurity of corporations, economies, and communities. High competition, humanitarian disasters, pandemics, and wars in many countries have created shockwaves affecting geopolitics, economic, trade, energy, and financial markets, and business reputations, markets, supply chains, and employees have been impacted in unexpected ways.

Many businesses consider resilience to be primarily concerned with sustaining short-term operational continuity during crises, however actual resilience is more widespread. The 2008 global financial crisis taught leaders in both the public and private sectors many valuable lessons about resilience and readiness, but they were unprepared for the triple threat they faced in 2020, a confluence of a global health pandemic, social and political unrest, and worsening climate

events that put organizations under pressure in ways many could not imagine. These issues have increased the need for companies to be resilient.

Many food and beverage companies are suffering from enormous financial difficulties, low environment is outside the organization's control, its actions are their responsibility. It necessitates revenues, and high employee turnover as a result of competitive issues. Although the business the food and beverage industry having competitive intelligence and being strategically aware in their business, service, and market participation.

However, despite the fact that the existing literature provides a good understanding of resilience and the drivers of competitive intelligence act, their organization, usage and dissemination within firms, little is known on the relationship of competitive intelligence with performance (Tej-Adidam, Banerjee, & Shukla, 2012) and resilience of the food and beverages firms in Rivers state, and most of this studies are descriptive in nature, hence the needs for the researcher to broaden societal insights on competitive intelligence and resilience of the food and beverage firms .

Aims and Objectives of the study

The study determines the influence of competitive intelligence on the resilience of the food and beverage firms in Rivers State. Specifically, it examines the relationships between:

1. Technological intelligence and adaptability of the food and beverage firms in Rivers State.
2. Technological intelligence and robustness of the food and beverage firms Rivers State.
3. Market intelligence and adaptability of the food and beverage firms in Rivers State.
4. Market intelligence and profitability of the food and beverage firms in Rivers State.

Research Hypothesis.

Ho₁: There is no significant relationship between technological intelligence and adaptability of the food and beverage firms in Rivers State.

Ho₂: There is no significant relationship between technological intelligence and robustness of the food and beverage firms in Rivers State.

Ho₃: There is no significant relationship between market intelligence and adaptability of the food and beverage firms in Rivers State.

Ho₄: There is no significant relationship between market intelligence and robustness of the food and beverage firms in Rivers State.

Review of Related Literature

The variables and research parameters are explored from a literary perspective. The conceptual framework is depicted in figure 1 and lists the variables as competitive intelligence and organizational resilience.

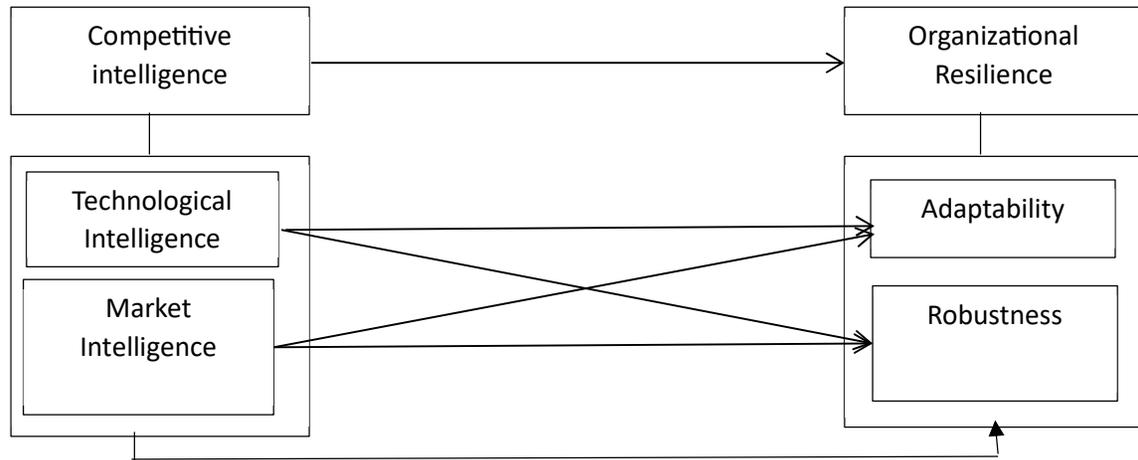


Fig. 1.1: Conceptual framework of competitive intelligence and resilience of food and beverage firms in Rivers State

Source: Adapted from Atkinson *et al.* (2020); Osita-Ejikeme and Amah (2022).

Competitive Intelligence

Competitive intelligence can be defined as a methodical information retrieval and investigation that transforms disjointed raw information about markets, competitors, and technologies into a glowing picture of the corporate environment for decision makers (Wolter, 2011). Competitive intelligence is typically forward-looking assertions about competitive positions, intentions, and tactics. Numerous studies and analyses in the past have shown that the strategic decision-making process must not neglect the strategic actions of existing and potential competitors, and that organizations must go above and beyond to ensure this knowledge, regardless of the industry in which they operate.

Hamid (2018) defines competitive intelligence (CI) as the process of collecting, processing and analysing information from and about the internal and external or competitive environment in order to help decision-makers in decision-making and to provide a competitive advantage to the enterprise. Competitive intelligence (CI) is defined by Hamid (2018) as the process of gathering, processing and analysing information on the competitive environments to assist decision-makers in making decisions that provide a competitive advantage to the organization. Competition is expanding across all industries, and organizations are under pressure to create agile, adaptable strategies to manage risks and drive growth; a corporation that lacks a solid competitive intelligence program risks being caught off guard by competition.

Swayze (2023) defines competitive intelligence as "business-focused data gathered on competitors to produce insights for strategic decision-making." It is a crucial asset when establishing a resilience plan since competitive analysis helps organizations improve and differentiate themselves from the competition. When a company combines competitive intelligence with market information, it can generate a comprehensive view of the market, allowing it to make more confident strategic decisions. A competitive assessment enhances the

understanding of the competition's success and failure, allowing the firm to design an appropriate model, adapt their strategy and tactics to avoid any mistakes made by competitors, and improve the success of their strategies.

The competitive intelligence can be used to improve the firm market positioning, innovate multi-generational product planning, adapt pricing strategies to capture more of the market, develop sales and marketing strategy to counter competitive insurgents, identify unserved or underserved markets and to improve commercial operations through technology and digital resources (Swayze (2023). Competitive intelligence activities include market intelligence, competitor intelligence, technological intelligence, strategic and social intelligence, structural–organizational intelligence but this study focus on market intelligence and technological intelligence.

Technological Intelligence

Technology intelligence (TI) is a method that assists firms in identifying technological opportunities and threats that may affect their future survival and success. Its goal is to collect and disseminate technological knowledge essential for strategic planning and decision-making. Effective TI capabilities are becoming increasingly important as business grows more global and technology life cycles shorten (Kerr et al., 2008).

Technology intelligence (TI) is a technique that helps businesses find technological opportunities and risks that could affect their survival and success in the future. Its objective is to gather and share technological knowledge that is crucial for developing strategic plans and decisions. As company becomes more globalized and technology life cycles shorter, effective TI capabilities are becoming more and more crucial (Kerr et al., 2008).

To take advantage of new business opportunities and spot possible threats, businesses must stay up to date on technology advancements. Many organizations and businesses have used technology intelligence (TI) systems in order to gather and easily disseminate information about new technologies and trends to decision makers as they become aware of the benefits in creating new opportunities. It can be challenging to set up such a system since it requires the ability to evaluate enormous amounts of data, choose what is helpful, and provide it to those who need it.

The internet has aided in the expansion of data sources for technology intelligence, which is critical for the evolution of technology intelligence (Veugelers, Bury & Viaene, 2010). Technology intelligence enables firms to be aware of emerging technological dangers and possibilities. It is critical for firms to be able to understand emerging technologies as opportunities and dangers and how they will impact their operations. Over the last two decades, there has been a tremendous increase in the number of products and services produced by technology, owing to the fact that it is much easier and less expensive to obtain and store data from many sources that can be evaluated and used in various industries.

Market Intelligence

Market intelligence is referred to as information or data that an organization gathers from the market in which it now operates or desires to do business in order to identify market segmentation, market penetration, market opportunity, and current market metrics. Market intelligence is crucial for assessing the status of the industry and gathering information about competitors, both of which help businesses succeed (Bhat, 2023).

Market intelligence (MI) is the collecting and analysis of data about a firm's market trends, competition and customer monitoring to provide continual insight into market trends such as competitors' and consumers' values and preferences. Market intelligence is the term used to describe pertinent information about a particular market or product that may be used to evaluate company data in the context of the overall industry landscape, support critical business decisions, and guide market strategy. Market intelligence can offer insights into consumer behaviour, how they engage with rival businesses, and how to comprehend the current market, its problems, and potential for expansion. (Pradham, 2020).

Market intelligence and business intelligence, on the other hand, are not the same thing. Market intelligence gathers information from outside sources, providing you with a full view of the entire market rather than just your organization, whereas business intelligence concentrates on internal components such as billing rates, headcount, processes, etc. However, by combining market intelligence and business intelligence techniques, a company can obtain a complete view of its ongoing performance in a given market context.

Market intelligence is current, useful information on the target market, potential clients, and competitors. It aids in future prediction and assists the firms in making judgments by sorting through market turbulence and helps corporations to gain an insight of the competitive landscape, the target market, consumer trends, and individual buyer profiles by gathering market data (Pradham, 2020)

Resilience

Resilience is a company's ability to absorb anxiety, recover perilous functionality, and flourish under new conditions; it is more than just an operational contemplation; it is a potential strategic advantage that permits firms to exploit opportunities when competitors are least prepared (Reeves, O'dea, & Carlsson-Szlezak, 2023). Most organizations are still struggling, and many have been forced to close their doors, some permanently. However, some businesses have endured and even flourished in this peculiar climate. They are not just individuals who work in industries whose products and services are required during crises, but those who have adopted resilience as a strategy. Smallbone et al. (2012) and Pal, Westerlind, and Torstensson (2013) describe resilience as a firm's ability to react to a crisis or a transition while maintaining its competitive advantage, while McPhee (2014) defines resilience as the capacity to withstand shocks.

According to Renjen (2021), 2020 was an unprecedented year of global disruption, leaving some businesses unable to cope. A new Deloitte Global report reveals that firms with in-built resilience were better fortified to handle the catastrophe, as a result of their use of readiness, adaptability,

collaborative, dependability, and accountability as a strategy to overcome future business challenges. Companies that practice resilience see opportunity amid adversity.

Thinking forward, taking early action in strategy, workforce, technology, and social effect, and doing what it takes to respond to and recover from a crisis are all aspects of resilience. During the crisis, establishments that had applied key actions prior to 2020 emerged as leaders in resiliency as they have invested in workforce initiatives like reskilling their employees or restructuring work, they had diversified operations and developed technological competences to drive new business models, they had changed to remote working, kept employees safe and maintained trust between leaders and employees and their organizations valued diversity, equity and inclusion and they were committed to improving the environment and strengthening communities; but unfortunately, only few organisations are among the resilient firm (Renjen, 2021).

Leaders should focus on cultivating specific behaviours and mindsets, both on their own and in their teams, to promote a more resilient organization. Finding lessons and opportunities in events, appreciating the nuance of workplace paradoxes, and challenging colleagues to venture outside of their comfort zones. Leaders should advocate good well-being and improve in ongoing listening tours and surveys which can aid in gathering feedback about the firm, its culture, and what employees require.

Adaptability

The degree to which an organization can alter its structure and business processes and achieve its goals in line with the particular characteristics of dynamic environments and a process is referred to as adaptability (Epstein, 2022). Adaptability, according to Paliokaite (2012), provides a competitive advantage, in fast changing settings. Adaptability is not just about surviving a change, adaptability is being a proactive catalyst, it requires being actively prepared for change, advocate for it, and consistently adding more capabilities into your repertoire for the skillset to meet emerging needs.

Adaptability is about “bouncing forwards and going beyond simply enduring a challenge, but to thrive beyond it. According to Dalziell and McManus (2004), adaptability is defined as organizational staff involvement and engagement in such a way that they are held accountable for and concerned with building the organization's resilience through their work because they are aware of the links between resilience and long-term success.

Adaptability is essential for thriving in the volatile, unpredictable, complex, and ambiguous (VUCA) global economy of the twenty-first century, as personnel face new unforeseen circumstances at an increasing rate. Although stress causes people to become more inflexible in old habits and mindsets, improving adaptability is especially vital when circumstances are unpleasant. Despite the fact that competence building has been shown to be beneficial, very few employers invest in any sort of adaptation skill-building. Enterprise executives would be wise to address resilience and their organization's demands by investing in people to promote adaptability. (Blog on People and Organizations, 2023)

Robustness

Robustness is the capacity to withstand or endure external shocks and to maintain stability in the face of uncertainty (Bankes, 2010:2). According to Jen (2003:14), robustness is the ability of a system to tolerate instabilities in structure without change in function. According to Men, et al., (2011), robustness is the capacity of a complex system to continue operating in the presence of shocks or disturbances.

This emphasis on shock resistance and systemic functioning pervades most robustness applications across numerous fields. In engineering, system robustness refers to functional reliability in the face of eventual failure; in biology, robustness is the ability of developmental processes to continue on course despite the impact of environmental perturbations; and in ecosystems, robustness is defined in terms of ecological resilience, which is the ability to maintain functions and control in the face of external disturbance (Jen, 2003:14) and the safeguarding of some envisioned system features in the face of changes in the behaviour of its component elements or its surroundings (Carlson & Doyle, 2002: 2538).

Empirical Review

Studies have been done in relation to the variables under inquiry. Tej, Banerjee and Shukla (2012) investigate the influence of competitive intelligence (CI) techniques on company performance in the context of India's growing market. The study employed a stratified sample drawn from a number of mailing lists focusing on Indian businesses. The methodology used in the study was cross-sectional and survey based. According to the study, Indian firms with higher levels of CI activities achieve better financial performance results; and the current level of CI activities in Indian firms is moderate, implying an opportunity for using and implementing more sophisticated CI techniques.

Osita-Ejikeme and Amah (2020) investigated the association between strategic flexibility and corporate resilience in South-South Nigerian manufacturing enterprises. To investigate the relationship between the dimensions (operational flexibility and market flexibility) and the measures (adaptability and agility), four objectives, research questions, and hypotheses were proposed. A systematic questionnaire was created, and completed copies were used in the study. The link between the dimensions of Strategic Flexibility and the measures of Corporate Resilience was investigated using Structural Equation Modelling (SEM) and Smart PLS 3.3.3. The findings suggest that all aspects of strategic flexibility boosted business resilience.

Morris and Sexton (1996) investigated entrepreneurial intensity relationship with corporate performance. The idea of entrepreneurial intensity (EI) is proposed in order to capture both the degree and amount of entrenched behaviour within a specific firm. It is anticipated that EI levels are highly related to metrics of corporate performance. The results of a survey focused at a cross-section of industrial enterprises are provided. The findings show that EI has substantial connections with five of the six performance indicators.

Umoh and Amah (2013) investigate the relationship between organizational resilience and knowledge acquisition. The study's sample comprised of 138 employees from the thirty-four manufacturing enterprises registered with the Manufacturers Association of Nigeria, Rivers State Council. The study collected both quantitative (questionnaire) and qualitative (interview) data. The data was analysed using the Spearman rank correlation coefficient and the Multiple Regression Model in the Statistical Package for Social Sciences (SPSS) version 17. Our findings demonstrated a significant and favourable connection between knowledge acquisition and organizational resilience. Knowledge acquisition, in particular, was found to have a favourable and significant impact on organizational resilience.

Akhigbe and Onuoha (2019) conducted a critical examination of the relationship between strategic agility and organizational resilience in Rivers State, Nigeria. Because the variables were not under the researcher's control, a cross-sectional survey, a sort of quasi experimental design, was utilized in this investigation. This study included 125 managerial workers from the 15 registered food and beverage companies. The Pearson Product Moment Correlation statistical technique was used to assess the data received via questionnaire. A total of 81 questionnaires, or 85% of those distributed, were successfully retrieved and used in the study. Thus, the findings demonstrated a notable link between strategic agility dimensions (flexibility and accessibility) and organizational resilience measures (adaptability and robustness).

Methodology

A survey design was used to study the association between competitive intelligence and resilience of Rivers State food and beverage firms. This study's population consists of 127 managers and supervisors from food and beverage companies. The study was a census study because the population was within the researcher's reach. To gather information on the variables under inquiry, participants were given a standardized questionnaire. Each dimension and measure item were measured with five inquiry items. Technological and market intelligence were used to assess competitive intelligence, whereas adaptability and robustness were used to assess resilience. The data from the study and the testing of hypotheses were analysed using the Spearman rank order correlation coefficient.

Result

Out of the 127 questionnaires issued, 125 were returned, which makes 98.4% of the total. The hypothesis test is carried out with a 125% confidence interval, and the decision rule is shown below.

Where $P < 0.05$ = Reject the null hypotheses

Table 1: Relationship between technological intelligence and adaptability

Correlations				
		Technological Intelligence		Adaptability
Spearman's rho	Technological Intelligence	Correlation Coefficient	1.000	.785**
		Sig. (2-tailed)		.000
		N	125	125
	Adaptability	Correlation Coefficient	.785**	1.000
		Sig. (2-tailed)	.000	
		N	125	125

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

The findings of the data analysis in Table 1 show a substantial relationship between technological intelligence and adaptability, with $P \leq 0.05$ (0.000 0.05) and $\rho = 0.785$. This means that a change in one of the variables will positively impact the other, i.e. a change in technological will have an impact on the level of firm's adaptability. Therefore, the study findings reveal a positive and significant relationship between technological intelligence and adaptability. Considering the foregoing, we therefore reject the null hypothesis and accepts the alternate hypothesis which states that that there is a significant link between technological intelligence and adaptability of the food and beverage firms in Rivers State.

Table 2: Relationship between technological intelligence and robustness

Correlations				
		Technological Intelligence		Robustness
Spearman's rho	Technological Intelligence	Correlation Coefficient	1.000	.795**
		Sig. (2-tailed)		.000
		N	125	125
	Robustness	Correlation Coefficient	.795**	1.000
		Sig. (2-tailed)	.000	
		N	125	125

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

The study in Table 2 shows a moderately positive rho value of 0.795 and a P-value of.000, which is less than .05 (0.000 0.05), indicating a significant relationship between technological intelligence and robustness. The implication of this is that an improvement in technological intelligence will enhance the level of robustness of the firm. Thus, the null hypothesis is rejected and we therefore accept the alternate hypothesis that there is a significant relationship between technological intelligence and robustness of the food and beverage firms in Rivers state.

Table 3: Relationship between market intelligence and adaptability

Correlations				
			Market Intelligence	Adaptability
Spearman's rho	Market Intelligence	Correlation Coefficient	1.000	.825**
		Sig. (2-tailed)		.000
		N	125	125
	Adaptability	Correlation Coefficient	.825**	1.000
		Sig. (2-tailed)	.000	
		N	125	125

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

The analysis on table 3 shows a positive relationship between market intelligence and adaptability. This can be seen from the P-value of .000 and a coefficient value of .825. This implies that a change in one of the variables will positively affect the other, i.e. market intelligence will positively influence the level of adaptability in organizations. Therefore, we infer that there is a positive and significant relationship between market intelligence and the firm's adaptability. Following the result, the null hypothesis is hereby rejected and the alternate hypothesis accepted that there is a significant relationship between market intelligence and adaptability of the food and beverage firms in Rivers state.

Table 4: Relationship between market intelligence and robustness

Correlations				
			Market Intelligence	Robustness
Spearman's rho	Market Intelligence	Correlation Coefficient	1.000	.845**
		Sig. (2-tailed)		.000
		N	125	125
	Robustness	Correlation Coefficient	.845**	1.000
		Sig. (2-tailed)	.000	
		N	125	125

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

Table 4 demonstrates a favourable association between market intelligence and resilience. This is demonstrated by the P-value of .000 and the coefficient value of .845. This indicates that a change in one of the variables will have a positive impact on the other, i.e. market intelligence will have a positive impact on organizational robustness. As a result, we conclude that market intelligence and firm robustness have a positive and significant association. As a result of the findings, the null hypothesis is rejected and the alternate hypothesis, that there is a substantial relationship between market intelligence and the robustness of the food and beverage enterprises in Rivers state, is accepted.

Discussion of Findings

Technological Intelligence and Adaptability

The results of the data analysis showed a strong relationship between technological intelligence and adaptability. The P-value of 0.000 demonstrates relationship existence between technological intelligence and adaptability, and the rho value of 0.785 demonstrates a strong and positive link between technological intelligence and adaptability. Thus, it can be deduced that for firms that wants to have adaptability must embrace technological intelligence. The study's findings are consistent with those of Tej Adidam, Banerjee & Shukla (2012), who discovered that Indian firms with higher levels of competitive intelligence activities achieve better financial performance outcomes.

Technological Intelligence and Robustness

The result of hypothesis 2 demonstrated a significant connection between technological intelligence and robustness. The P-value of 0.000, and the rho value of 0.795 shows a strong relationship between the two variables. This confirm that a change in any of the variable will affect the other. Furthermore, when there is technological intelligence involvement, it enhances the level of the firm's robustness. The result aligns with the study of Akhigbe and Onuoha (2019) whose findings demonstrated a notable link between strategic agility dimensions (flexibility and accessibility) and organizational resilience measures (adaptability and robustness).

Market Intelligence and Adaptability

According to the findings of the third hypothesis, market intelligence is substantially related to adaptability. This demonstrates how market knowledge improves adaptability in Rivers State's food and beverage industries. The coefficient value of 0.825 indicates that changes in market intelligence have an impact on the adaptability of food and beverage enterprises. As a result, market information appears to improve business adaptability in food and beverage firms. The findings substantiate the findings of Osita-Ejikeme and Amah (2020) that strategic flexibility boosted business resilience.

Market Intelligence and Robustness

The fourth hypothesis' results suggest that market intelligence is highly related to resilience. This demonstrates how market knowledge improves the resilience of Rivers State's food and beverage industries. The coefficient value of 0.845 indicates that changes in market intelligence have an effect on the resilience of food and beverage enterprises. As a result, market information appears to improve company robustness in food and beverage firms. The findings corroborate the findings of Morris and Sexton (1996) investigated entrepreneurial intensity relationship with corporate performance and the findings show that entrepreneurial intensity has substantial connections with performance indicators.

Conclusion

The study examines competitive intelligence and resilience of the food and beverage firms in Rivers State. It is important to state that the study found that embracing competitive intelligence for enhances improved resilience of the food and beverage firms, as it gives a competitive advantage that enhances robustness and adaptability in the business activities. It was also noted that the use of technological and market intelligence improves the beverage firm's adaptability and robustness. The study thereby concludes that for resilience of the food and beverage firms, competitive intelligence is a necessity.

Recommendations

- 1) The food and beverage firm should embrace competitive intelligence and ensure swift response as such will boost their resilience .
- 2) Technological intelligence should be used to disseminate technological knowledge essential for strategic planning and decision-making as such will enhance their resilience.
- 3) The food and beverage firm should use competitive intelligence for assessing the status of the industry and gathering information about competitors as such will make them take measures to enhance their resilience.
- 4) The food and beverage firm must stay up to date in their competitive intelligence advancements to easily disseminate information about new technologies and market trends to be flexible and take advantage of new opportunities.

References

- Adger, W. N. (2000). Social and ecological resilience: are they related? *Progress in human geography*, 24(3), 347-364. <https://doi.org/10.1191/030913200701540465>
- Akhigbe E. A. & Onuoha, B. C. (2019). Strategic agility and organizational resilience of food and beverage firms in Rivers State, Nigeria. *International Journal of Business Systems and Economics* 12 (2), 80 – 93.
- Atkinson, P., Hezaji, M., Nazarian, A. & Abasi, A. (2020). Attaining organizational agility through competitive intelligence: The roles of strategic flexibility and organizational innovation. *Total Quality Management and Business Excellence*, 14, 1-37.
- Banks, S. (2010). Robustness, adaptivity, and resiliency analysis. Association for the Advancement of Artificial Intelligence, *Fall Symposium*, <http://www.aaai.org/ocs/index.php/FSS/FSS10/paper/view/2242/2643>.
- Bergeron, P. ; Hiller, C. A. (2005-02-01). *Competitive intelligence. Annual review of information science and technology*. 36 (1): 353–390. [doi:10.1002/aris.1440360109](https://doi.org/10.1002/aris.1440360109).
- Bhat, A. (2023). Market intelligence: Definition, methods, types and examples. *Questionpro.Com*, <https://www.questionpro.com/blog/market-intelligence/>
- Bonanno, G. A. (2004), "Loss, trauma, and human resilience: have we underestimated the human capacity to thrive after extremely aversive events?", *American Psychologist*, 59 (1), 20-28.

- Callo-Concha, D., & Ewert, F. (2014). Using the concepts of resilience, vulnerability and adaptability for the assessment and analysis of agricultural systems. *Change and Adaptation in Socio-Ecological Systems Climate Change, Social Changes, Technological Development*, 1(2014), 1-11.
- Chaudhuri, Surajit; Dayal, Umeshwar; Narasayya, Vivek (2011). *An Overview of business intelligence technology*. *Communications of the ACM*. 54 (8): 88. <https://doi.org/10.1145/1978542.1978562>.
- Dalziell, E.P & McManus (2004). *Resilience, Vulnerability, and Adaptive Capacity: Implications for Systems Performance*. University of Canterbury. New Zealand.
- Epstein S. (2022). Getting familiar with the idea of adaptability, as well as learning how to strengthen it, is key to helping you get ahead at work. *Worklife*, <https://www.bbc.com/worklife/article/20220915-how-adaptability-helps-you-bounce-forwards-at-work>
- Hamid T. (2018). The role of competitive intelligence and its sub-types on achieving market performance. *Cogent Business & Management*, 5(1), 1-16. <https://doi.org/10.1080/23311975.2018.1540073>
- Hollnagel, E., Woods, D. D., & Leveson, N. (Eds.). (2006). *Resilience engineering: Concepts and precepts*. Ashgate Publishing, Ltd.
- Jen, E. (2003). Stable or robust? What's the difference? *Complexity*, 8(3), 12–18.
- Kerr, C. I. V.; Mortara, L.; Phaal, R. & Probert, D. R. (2006). [A conceptual model for technology intelligence](#). *International Journal of Technology Intelligence and Planning* 2(1), 73-93.
- Luthar, S. S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child development*, 71(3), 543-562. <https://doi.org/10.1111/1467-8624.00164>
- McPhee, W. (2014). A new sustainability model: engaging the entire firm. *Journal of Business Strategy*, 35(2), 4-12.
- Mens, M. J. P., Klijn, F., de Bruijn, K. M., & van Beek, E. (2011). The meaning of system robustness for flood risk management. *Environmental Science & Policy*, 14(8), 1121–1131.
- Montgomery, D. B. & Weinberg, C. B. (1979): Toward strategic intelligence systems. *Journal of Marketing*, 43 (4), 41–54.
- Morris M, H. & Sexton D. L. (1996). The Concept of entrepreneurial intensity: Implication for company performance. *Journal of Business Research* 36, 5-13.
- Mortara, L. and Kerr, C. and Phaal, R. and Probert, D. (2008). [Technology intelligence: Identifying threats and opportunities from new technologies](#). University of Cambridge.

- Osita-Ejikeme, U. E., & Amah, E. (2022). Strategic flexibility and corporate resilience of manufacturing firms in South-South, Nigeria. *International Journal of Management Sciences* 9(3), 50 – 73.
- Pal, R., Westerlind, R. & Torstensson, H. (2013). Exploring the resilience development process by implementing the crisis strategic planning framework: a Swedish textile SME perspective. *International Journal of Decision Sciences, Risk and Management*, 5(1), 1-34.
- Paliokaite, A. (2012). *The relationship between organisational foresight and product innovation in small and medium enterprises*. In Proceedings of the 8th International Ph.D. School on National Systems of Innovation and Economic Development, Globelics Academy, Rio de Janeiro, Brazil.
- People and organisation Blog (2023). Everyone needs more of this one skill. *Mckinsey.Com*, <https://www.mckinsey.com/capabilities/people-and-organizational-performance/our-insights/the-organization-blog/everyone-needs-more-of-this-one-skill>
- Pradham, N. (2020). What is market intelligence? Types, best practices, and use cases. *Market Intelligence Category*, <https://www.g2.com/articles/market-intelligence>
- Reeves, M., O’dea A. & Carlsson-Szlezak, P. (2022). Make resilience your company’s strategic advantage. *Harvard Business Review*, <https://hbr.org/2022/03/make-resilience-your-companys-strategic-advantage>
- Renjen, P. (2021). Resilience in an age of disruption, *World Economic Forum*, <https://www.weforum.org/agenda/2021/01/business-resilience-pandemic-disruption/>
- Smallbone, D., Deakins, D., Battisti, M. & Kitching, J. (2012). Small business responses to a major economic downturn: empirical perspectives from New Zealand and the United Kingdom, *International Small Business Journal*, 30(7), 754-777.
- Sutcliffe, K.M. and Vogus, T.J. (2003). *Organizing for resilience*, in Cameron, K.S., Dutton, J.E. and Quinn, R.E. (Eds), *Positive Organizational Scholarship: Foundations of a New Discipline*, 1st ed., Berrett-Koehler, San Francisco, CA, pp. 94-110.
- Swayze, S. (2023). How to gather competitive intelligence to strengthen your GTM strategy. *10EQS.Com*, https://www.10eqs.com/wp-content/uploads/Competitive_Intelligence-1.pdf
- Tej A., P., Banerjee, M., & Shukla, P. (2012). Competitive intelligence and firm's performance in emerging markets: an exploratory study in India. *Journal of Business & Industrial Marketing*, 27(3), 242-254.
- Umoh, G. I, Amah, E. (2013). Knowledge acquisition and organizational resilience in Nigerian Manufacturing Organizations. *Information and Knowledge Management* 3(9), 56-63.
- Veugelers, Mark; Bury, Jo; Viaene, Stijn (February 2010). Linking technology intelligence to open innovation. *Technological Forecasting and Social Change*. 77 (2): 335–343. [doi:10.1016/j.techfore.2009.09.003](https://doi.org/10.1016/j.techfore.2009.09.003).

Walker, B.H., Holling, C.S., Carpenter, S. R. and Kinzig, A. (2004), "Resilience, adaptability and transformability in social-ecological systems", *Ecology and Society*, Vol. 9 No. 2, available at: ftp://131.252.97.79/Transfer/WetlandsES/Articles/walker_04

Wikipedia (2023). Robustness. *En. Wikipedia.Org*, <https://en.wikipedia.org/wiki/Robustness>

Wolter, K. (2011). Competitive intelligence. *Application Management: Challenges–Service Creation–Strategies*, 183-215.