ENTREPRENEUR ALERTNESS AND RESILIENCE OF SMALL AND MEDIUM SCALE ENTERPRISES IN RIVERS STATE NIGERIA

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ABSTRACT

Motivated by the dynamism facing modern small and medium scale enterprises (SMEs) in Nigeria, particularly Rivers State and the need for organizations to adjust fluidly to these dynamics, this study investigated the relationship between entrepreneur alertness and resilience of SMEs, as well as the moderating influence of environmental turbulence on the relationship between entrepreneur alertness and resilience of SMEs. Entrepreneur alertness was decomposed into explorative learning, exploitative learning, and risk perception, while resilience had adaptive capability and agility as measures. The psychometric integrity of the instrument and trustworthiness of qualitative data were established. Quantitative data were obtained from 218 usable copies of questionnaire. The partial least square - structural equation modelling was deployed to test the measurement and structural aspects of the model, with the use of Smart PLS 3.2.6. All aspects of entrepreneur alertness were found to have promoted measures of resilience, while environmental turbulence enhances the relationship between entrepreneur alertness and resilience of SMEs. The study recommends that SMEs in Rivers State should improve upon their degree of responsiveness to explorative learning, exploitative learning and risk perception.

Keywords: Entrepreneur alertness, resilience, explorative learning, exploitative learning, risk perception

INTRODUCTION

Globally, businesses (especially small and medium scale enterprises [SMEs]) are challenged by volatile and unstable operating environment. They regularly face an unprecedented number of disturbances to their existing condition. Hence, these enterprises fail, in the absence appropriate risk management methods and scalable resilience measurements (Wieland & Wallenburg, 2013). Thus, Amah and Onwughalu (2017) argue that present-day enterprises operate in environments marked by unending change coming from competitive dynamics and other environmental factors. This means that that firms' existence and sustainability requires being equipped with necessary competencies that enable strategic responsiveness to market dynamics.

In business milieu marked by high proliferation of technology and business failures, only companies that exhibit high resilience capacity are likely to successfully weather stormy moment and imponderable variety in the business world. Furthermore, corporations follow written down rules in their efforts to survive and withstand interruptions that may appear to cut short their corporate existence. Sheffi (2005) state that a firm's existence rests more on the activities carried out before disruptions happen than on measures taken when disturbance arises. This position suggests that corporate resilience must vital component of company management.

Cressey (2010) argue that resilience capacity is a basic issue that demand systematic response throughout an organization. Corporate resilience is the capacity to continue functioning and succeed, despite problems that may confront the firm or complicate the business environment. A high degree of resilience increases company stability, competitiveness, profitability and shareholders' value (Hamel & Valikangas, 2003). In other words, resilience as an organizational trait, helps firms to endure the tumultuous business environment and improve capacity to survive the test of time. Cooper et al. (2013) observe that being more efficient and effective in executing operations in the face setbacks is a relevant corporate capability.

Over the years, different researchers have investigated strategies to strengthen resilient capacity of organizations using various frameworks. Ahiauzu and Jaja (2015) exaimed process innovation and resilience of Public Universities in Rivers State Nigeria. The study made efforts to examine corporate resilience and identified three dimensions- situation awareness, cornerstone vulnerability and adaptive capability. The study however, focused on universities, and not SMEs. Amah and Onwughalu (2017) examined ambidexterity and resilience of telecommunication firms in Port Harcourt, Rivers State but effort was placed on ambidexterity which were measured using exploration and exploitation ambidexterity and there was no effort to measure resilience.

Similarly, Sylva and Umoh (2018) examined how resilience of organization in the Nigerian Aviation Industry may be strengthened from the stand point of management information system capabilities. The study did not investigate the relationship between Entrepreneur alertness and resilience in the context of SMEs. Furthermore, Radomska (2015) did a research on explorative learning of organizations. However, the study did not focus on a single unit of analysis and failed to correlate vigilance with organizational resilience which creates a knowledge gap.

Additionally, Ramendran et al. (2013) studied entrepreneur alertness and its effects on employees' productivity. Despite the various academic works, there seems to be scarcity of research on how entrepreneur alertness connects with resilience of SMEs in South-South Nigeria. Again, prior research have not studied the moderating impact of environmental turbulence on the connection between entrepreneur alertness and resilience of the SMEs in Rivers State, Nigeria. It is these identified gaps that has informed this study.

SMEs throughout the world, particularly in rapidly developing countries like Nigeria, have long begun to reap the benefits of technical and other modern advances that have led to greater changes in their operating templates (process, production, and distribution activities). As the number of SMEs grow, so does the number of items on the market, making it increasingly difficult for managers to keep their companies afloat. As a result, SMEs today confront hyper-competition. The unexpected economic downturn across nations caused by Coronavirus, has altered current business narratives, hampered business survival and made corporate resilience a critical characteristic for firms. Observably. In the event of a rapid shift in the business environment, a lack of corporate resilience might lead to a company's demise.

SMEs, particularly those in emerging countries like Nigeria, are beset by sundry challenges, including intense rivalry, high manufacturing costs, lack of raw materials, and reliance on old-fashioned technology that makes survival and growth difficult (Akhigbe and Onuoha, 2019). Developing resilient capacity would enable these firms to cope with unexpected changes in the environment. Corporate resilience help firms avoid negative effects of abrupt crises, adapt to current developments, and withstand dynamic business pressures (Okuwa et al., 2016). To this end, this study evaluated how entrepreneurial alertness, defined as explorative learning, exploitative learning, and risk perception is linked to resilience of SMEs in Rivers State, Nigeria. The study also examined the moderating influence of environmental turbulence on the nexus between entrepreneur alertness and resilience of SMEs in Rivers State, Nigeria.

The study formulated the following hypotheses to guide the collection and analyses of data:

- Ho₁: Explorative learning does not significantly relate to adaptive capacity of SMEs in Rivers State.
- Ho₂: Explorative learning does not significantly relate to agility of SMEs in Rivers State.
- Ho3: Exploitative learning does not significantly relate to adaptive capacity of SMEs in Rivers State.
- Ho4: Exploitative learning does not significantly relate to agility of SMEs in Rivers State.
- Ho₅: Risk perception does not significantly relate to adaptive capacity of SMEs in Rivers State.
- Ho₆: Risk perception does not significantly relate to agility of SMEs in Rivers State.
- Ho₇: Environmental turbulence does not have significant influence on the relationship between entrepreneur alertness and resilience of SMEs in Rivers State.

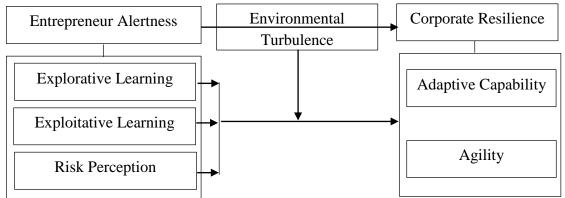


Fig. 1: Conceptual Research Model.

Source: Adapted from Zhao, Yang, Hughes & Li (2021), Volberda, Verwaal, and Weerdt (2006), Annareui, Battistella and Nonino (2020).

LITERATURE REVIEW

Theoretical Framework

RBV as proposed by Lacity and Willcocks (2008), is the most important driver of a company's success, since it is concerned with the company's resources and may contribute to its long-term competitive advantage. It is all about hard-to-imitate characteristics of a firm as a source of performance and competitive advantage (Hamel & Prahalad, 1996). It is more difficult for rivals to replicate resources that do not have an extensive learning curve or a substantial shift in organizational environment and culture since they cannot be readily relocated or acquired. However, the RBV takes an internal approach to the competitive environment that enterprises encounter, which begins with an examination of internal environment. Consequently, RBV is seen as an alternative to Porter's five-force model. RBV places high priority on internal resources and competencies while developing a strategy for long-term competitive advantage in the market. Businesses make strategic decisions based on their internal resources and capabilities while competing in the external business environment (Madhani, 2010).

Contingency theory at the structural level of organization's analysis is a dominant, theoretical, rational, open system model (Scott, 1992). The primary claim of contingency theory is that it is most suited to the environment in which a company works. As far as an organization's structure is concerned, environmental factors must be considered (Scott, 1992). Contingency theory is predicated on the ideas that there is no one optimum method to form an organization and that no two organizations operate in the same manner (Galbraith, 1973). One-size-fits-all approaches to human resources are ineffective, according to contingency, since their efficacy is context-dependent (Baird & Meshoulam 1988). Contingency decisions were mostly considered in terms of external and internal fitness. It is important for an organization's strategy to be aligned with its environmental plan in order to achieve external fitness.

Concept of Entrepreneur Alertness

Sethi and Sethi (1990) argue that alertness is a complex and multidimensional concept. A company's capacity to anticipate, adapt or respond to environmental change is reflected in the entrepreneur's alertness (Volverda, 1998; Bueno, 1996). When it comes to managing production resources and ensuring that clients' needs are met, entrepreneurial alertness is a necessity (Zhang et al., 2003). Accordingly, it can be inferred that flexible companies are able to adapt quickly and effectively to change, as well as adapt and respond proactively to change.

In this regard, alertness enable firms to swiftly launch new products, alter capacities, personalize goods, handle product mix changes, and manage change in customers' delivery schedules (Kathuria, 1998). In keeping with multidimensional nature of alertness, this study decomposes entrepreneur alertness into explorative learning, exploitative learning and risk perception.

Explorative learning

Explorative learning in organizational contexts, refers to companies' ability to respond to environmental changes and deploy relevant strategy to adapt to them. When a company's fundamental values, culture, core expertise, brand and strategic positioning are maintained, explorative learning may be described as a strategic as well as a reactive strategy for internal and external change in the organization (Sushil 2014). This is the underlying principle of the flowing current strategy, which uses strategic channels of diversion, change, division, and integration to dynamically balance continuity and forces of change (Sushil, 2013). All stakeholders' perspectives are included in exploratory learning, which also incorporates theories of interested parties.

Exploitative learning

The quantity of alternative sequencing schemes and the variability of plans allow for exploitative learning without a major transitional penalty or performance shift (Volberda, 1997). Integrated processes that allow for a wide variety of operational variables (sequencing, planning) responses are compatible with operating awareness. The capacity of a system to adapt to change is referred to as exploitative learning. There is a strong connection between routine management and exploitative learning. If you are looking for the most common, it does not matter what sort of activity your company undertakes, but how many activities it does. These routines have a primary focus on operational and reactive aspects. The ability to react quickly to familiar change is provided by a high level of alertness. The company's business may be affected for a short period of time as a result of these changes. Organizations can use their knowledge and extrapolation to design procedures to lessen this uneasiness because of the large level of environmental variety in these types of combinations (Anderies et al., 2013).

Risk perception

The ability of a company to adapt its structure and decisions in response to observable variations, relationships, and information dissemination processes in order to meet or cause structural changes in the environment is reflected in its risk perception. By separating leadership and power from each other, as well as managing the systems and modulating the procedures for making decisions, integration, and execution, the potential for risk perception is put in motion (Volberda, 1998). To cope with the volatility and unexpected fluctuations of the market. Firm perimeters need to be flexible (e.g. the network and joint venture system) and flat formations with the fundamental feature of levels are needed by organizations to house efficient management preparation of details and information (Buckley & Casson 1998). The management's ability and speed in adapting its decision-making and communication processes within a particular structure are referred to as "risk perception" or "adaptive manoeuvring capability" (Volberda, 1997).

Concept of Organizational Resilience

Resilience refers to the ability of an organization to carry out its functions and return to a stable state after major disturbance or stress by considering the before and during (Cumming et al. 2005; Gunderson 2000; Hearnshaw and Wilson, 2013). Resilience also refers to an organization's ability to continue achieving its goals despite adversity, both before and after a crisis occurs. Recovery and the desire and ability to adjust to changing circumstances are all notions associated with resilience. These include concepts such as self-awareness, detection, communication, reaction and, ideally, avoidance (McAslan 2010). While it is important to be resilient, an organization is only really resilient when it can withstand adversity and return to its pre-disturbance state (Practical Action 2010).

Achieving resilience requires not just the ability to bounce back, but also the ability to modify one's situation (Maguire and Cartwright, 2008). Restoring the organization to its pre-event state would leave it just as vulnerable to the next disruption, according to this understanding of resilience. Change, renewal, and re-organization are all notions that fall within the transformational model of resilience (Folke 2006). Resilience as defined by Hamel and Valikanga (2003) is the ability of an organization to adapt its business model and strategy in response to changing conditions. This study looked at resilience through the lenses of adaptive capability and agility.

Adaptive capability

The capability of an organization to identify and capitalize on emerging-market opportunities can be defined as adaptive capability (Wang & Ahmed, 2007). However, adaptability does not just mean being able to recognize and adapt to market demand, but also being able to take advantage of existing resources inside a firm (Staber & Sydow, 2002). An adaptive capability may reorganize, coordinate, recombine and distribute resources to respond to market changes rapidly and effectively, according to researchers (Gibson & Birkinshaw, 2004).

Agility

An effective integration of response capabilities and knowledge management in order to adapt to unforeseen (or unpredictable) changes in both proactive and responsive business and customer needs and opportunities quickly, efficiently, and accurately without compromising on the cost or quality of the product and process is defined as agility (Ganguly et al., 2009). Agility is a term used to describe the variety of methods used to attain success. Rather than being constrained by a small number of predetermined answers, being highly aware involves having the active capacity and willingness to detect new possibilities, overcome inertia, and address unexpected events (e.g., unanticipated change). It is a "replicable organizational resource" if an organization is able to change fast, effectively, and sustainably (Worley et al., 2014).

Entrepreneur alertness and Corporate Resilience

A complex environment necessitates increased differentiation in organizations, which in turn produces integration issues (Lawrence & Lorsch, 1967). However, as Weick (1982) points out, significant differentiation does not always lead to high integration. Combining high differentiation with low integration could produce lower efficiency, but it may be more efficient in enhancing awareness, improvisation and the ability to develop one's own solution.

An organization's dynamic capabilities represent its capacity to adapt in terms of its strategic resource awareness and alignment with its resources, organizational form, and ever-changing strategic demands (Ganesh et al., 2004). Firms must adapt to environmental change and match internal resources with external demand in order to grow and survive in a variety of industries, according to further empirical research (Zahra & George, 2002). The dynamic capacities of companies with a high degree of adaptability (Staber & Sydow, 2002).

Amarikwa et al. (2020) studied the link between risk perception and employee creativity in the insurance business in Rivers State, Nigeria. The study found that risk perception is connected to employee-driven innovation (service, process and administrative). Also, Gomezel and Aleksic (2020) explored the association between risk-takings and growth (market share and ROI growth) of firms. In Yousuf et al. (2019), the link between exploitative learning and firm performance was examined. The study found that operational and financial success of organizations benefit from entrepreneur alertness.

Turkish SMEs are able to successfully counter rivalry in rising nations (Celtekligil, 2019). It is crucial for organizations in sectors that experience technical variations, to exploit this fluctuation effectively and to execute strategic creative decisions. According to the empirical findings, organizations are able to accurately predict technological changes and are supported by technical advancements in their industry. According to Anggraini and Sudhartio (2018), strategic agility is critical in the banking industry because of the volatility of the environment. This means that players in the banking industry must be able to adapt to changing environmental conditions.

Environmental Turbulence (ET)

Environment turbulence is characterized by frequent and unpredictable changes that bring risk and uncertainty for all phases of product and service development (Calantone et al., 2002). The first tendency suggests that turbulence result from environmental complexity. The second trend focuses on environmental dynamic, which includes speed and unexpected forms (Chen et al., 2014). MacCormack and Verganti (2003) proposed that environmental turbulence is an anatomical process that describes how the body adapts to changes in the environment. In contrast, Calantone et al. (2003) showed that turbulence is an environmental condition of uncertainty that puts firms at risk.

According to Pavlou and El Sawy (2006), a standard scale for change and prediction in the workplace may be found in environmental turbulence. When significant levels of change and uncertainty are present, it is difficult for an organization to forecast occurrences, according to Johanesson and Palona (2010). In other situations, environmental turbulence contain three key aspects: environmental dynamism, environmental complexity, and environmental predictions. Zangoueinezhad et al. (2013).

METHODOLOGY

The quasi experimental design was employed by the study. The population of the study was 499 managerial staffs of SMEs in Rivers State. Using the random sampling technique, 217 copies of questionnaire were distributed to respondents. The response to the various items were measured using the 4 point Likert scale ranging from 1 - 4. Where 1 = Strongly disagree, 2 = Disagree 3 = Agree and 4 = Strongly agree. In this study, steps were taken to ensure the validity of the measuring instrument. The validity of the instrument in this study was ascertained using the convergent and discriminant validity. A convergent validity is deemed accepted when the average loading is equal to or greater than 0.7 while the discriminant validity is accepted when the variance extracted is greater than correlational square. The validity is presented in Table 1.

S/N	Construct	AVE (convergent validity)	Decision	Discriminant Validity	Decision
1	Explorative Learning	0.7528	valid	Variance extracted(0.566708) > Correlation square (0.619054)	valid
2	Exploitative learning	0.7868	valid	Variance extracted(0.619054) > Correlation square (0.0484)	valid
4	Risk perception	0.7676	valid	Variance extracted(0.58921) > Correlation square (0.116281)	valid
5	Adaptive Capacity	0.7056	valid	Variance extracted(0.499871) > Correlation square (0.074529)	valid
6	Agility	0.7750	valid	Variance extracted(0.600625) > Correlation square (0.021609)	valid
7	Environmental Turbulence	0.8452	valid	Variance extracted(0.714363) > Correlation square (0.0289)	valid

 Table 1: Convergent and Discriminant Validity for Constructs

For each of the constructs, we realized an Average Variance Extracted (AVE) greater than 0.7 which signifies the presence of convergent validity. We also realized that the variance extracted for each of the construct is greater than correlation square which signifies the presence of discriminant validity for each of the constructs.

The composite reliability was carried out using average variance extracted to ascertain the reliability. The study adopted the threshold of 0.5 for AVE and 0.6 for composite reliability. The study realized that the average variance extracted for each construct was within 0.5 and a composite reliability for each of the constructs greater than 0.6. Therefore, our constructs are reliable.

Smart PLS 3.2.6 prescribe by do Nascimento and da Silva Macedo (2016) was adopted to examine individual items and their loadings to ensure all loadings meets the minimum cut-off recommended by Hulland (1999). Further, indicator reliability was evaluated and internal consistency reliability of items and constructs respectively, under threshold conditions recommended by Straub et al. (2004) and Sarstedt and Ringle (2017). The results indicate reliability and internal consistency reliability. The study analysis was based on application of Least Square using the PLS algorithm with regression-based methods or Generalized Structured Component Analysis (GSCA), which is a fully informational method that optimizes a global criterion (Hwang et al. 2010). PLS-SEM is mostly used to explain relationships and prediction of target constructs (Hair et al., 2014).

RESULTS AND DISCUSSION

A total of 217 copies of the instrument were distributed, and all of which were retrieved. The perfect response rate recorded was as a result of frequent visits and phone calls made by the researcher. Out of the 217 copies retrieved, 11 copies (1.1%) were discarded lot due to invalid and missing responses such as constant responses or selection of more than a single option. Only cases with complete records or equivalent number of cases were included so that data entry will be consistent (Malhotra, 1999). On the whole, 206 copies of the instrument, representing 94.9% of the distributed copies, were accepted for entry and subsequent analysis.

Assessing the Structural Model (Main Effect)

The structural model is assessed once the measurement model is validated. This stage involves testing the hypotheses to confirm or refute the theorized logic. Hypotheses tests were done through bootstrapping. Then, the significance of the path coefficients (β) and the coefficients of determination (R^2 or predictive accuracy) were identified. Also, the structural model's predictive relevance (Q^2) was assessed as an alternative to goodness-of-fit, using a nonparametric approach called Stone-Geisser test (Geisser, 1975; Stone 1974).

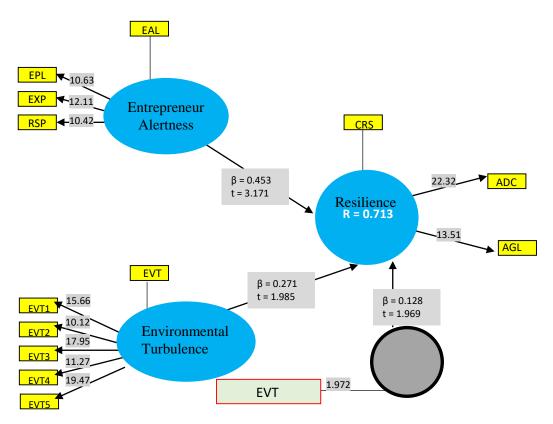


Fig. 1: Path relationship between EAL-> CRS in the presence of EVT.

Interpretation of Results on Multivariate (Inferential) Analysis					
Table 2: Summary of Results on the Tests of Hypotheses H ₀₁ , H ₀₃ , and H ₀₅					

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Null	Path	Path	Predictive	Effect Size-f ²	Predictive	Decision
Hypothesis	(Relationship)	Coefficient	Accuracy		Relevance $-Q^2$	
		$(\beta), (t - value)$	R^2			
H ₀₁ :	EPL -> ADC	0.371(4.103)	0.389	0.351	0.181	Not supported
		Significant	Moderate	Large	Relevant	
Ho2:	EXP -> ADC	0.346(2.531)	0.389	0.214	0.181	Not supported
		Significant	Moderate	Medium	Relevant	
H ₀₃ :	RSP -> ADC	0.302(3.003)	0.389	0.224	0.181	Not supported
		Significant	Moderate	Medium	Relevant	

Source: SmartPLS 3.2.6 output on research Data, 2021.

It can be interpreted from Table 2 that entrepreneur alertness (proxied by explorative learning, exploitative learning and risk perception) has a significant positive relationship with adaptive capability. Also, a unit improvement in entrepreneur alertness (EAL) could give rise to more than one-third increase in adaptive capability (ADC). This means that the ability of SMEs to adapt to unexpected situations could increase by a little bit above one-third when there is a unit increase in such organization's capacity to adjust its explorative learning, exploitative learning, and adaptive capability to meet exigent organizational occurrences.

Moreover, the model indicates a significant and satisfactory predictive relevance on the relationship between entrepreneur alertness and Adaptive capability. This means the current level at which SMEs dynamically adjust their explorative learning, exploitative learning and adaptive capability to meet exigent organizational occurrence could, to a large extent, predict their future potentials to adapt to unexpected situations. Thus, reliance on the view that SMEs can increase their ability to adapt by dynamically adjusting their explorative learning, and adaptive capability to meet exigent organizational occurrence may not be out of place.

Dimensions of Entrepreneur Alertness and Agility <u>Table 3: Summary of Results on the Tests of Hypotheses H₀₂, H₀₄, and H₀₆</u> <u>Null</u> Path Coefficient Predictive Effect Size ^{f²} Predictive

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Null	Path	Path Coefficient	Predictive	Effect Size-f ²	Predictive	Decision
Hypothesis	(Relationship)	$(\beta), (t - value)$	Accuracy R ²		Relevance $-Q^2$	
H ₀₄ :	EPL -> Agility	0.383(1.968)	0.349	0.247	0.107	Not
		Significant	Moderate	Medium	Relevant	supported
H ₀₅ :	EXP -> Agility	0.374(3.370)	0.349	0.206	0.107	Not
		Significant	Moderate	Medium	Relevant	supported
H ₀₆ :	RSP -> Agility	0.314(2.355)	0.349	0.218	0.107	Not
		Significant	Moderate	Medium	Relevant	supported

Source: SmartPLS 3.2.6 output on research Data, 2021

Table 3 demonstrates that entrepreneur alertness (proxied by explorative learning, exploitative learning and risk perception) has significant positive relationship with agility. Table 3 suggests that a unit increase in entrepreneur alertness could spark up about two-fifths increase in agility. Hence, the rapid, continuous, and systematic evolutionary adaptation and entrepreneurial innovation directed by SMEs at gaining and maintaining competitive advantage could be enhanced by about two-fifths owing to a unit increase in such organizations' capacity to adopt explorative learning, exploitative learning, and adaptive capability to exigencies in the environment.

Influence of environmental turbulence on relationship between entrepreneur alertness and resilience Finally, it was proposed in hypothesis seven (H_{07}) that Environmental turbulence does not significantly moderate the relationship between Entrepreneur alertness and corporate resilience.

Null Hypothesis - Ho:7	Path	Path Coefficient	Predictive	Decision
	(Relationship)	$(\boldsymbol{\beta}), (t - value)$	Accuracy R ²	
Hypothesis Testing without	EAL -> CRS	0.391(1.974)	0.368	
moderating variable		Significant	Moderate	
Hypothesis Testing with	EAL -> CRS	0.453(3.171)	0.508	Not
moderating variable		Significant	Weak	supported
	EVT -> CRS	0.271(1.985)	0.508	
		Significant	Weak	
	Moderating	0.128(1.969)	NIL	
	Effect 1 -> CRS	Significant		

Table 4: Summary of Results on the Test of Hypothesis H₀₇

Source: SmartPLS 3.2.6 output on research Data, 2021

Table 4 shows that when Environmental turbulence does not interject, the standardized path coefficient from entrepreneur alertness to corporate resilience was positive, moderate and significant. However, with the introduction of environmental turbulence, there was an increase in the path relationship between entrepreneur alertness and corporate resilience.

Moreover, after controlling for the covariates, entrepreneur alertness and environmental turbulence, the interaction between entrepreneur alertness and environmental turbulence significantly accounted for the remaining variance of corporate resilience. Therefore, H_{07} was not supported. Thus, the ability of firms to display resilience in terms of adaptive capability and agility will increase in the face of environmental turbulence.

SUMMARY OF FINDINGS

This study investigated the nexus between entrepreneur alertness and resilience of SMEs in Rivers State, Nigeria. Having conducted the quantitative analyses and interpretations of data, the following emerged as summary of findings:

- 1) SMEs in Rivers State, Nigeria are characterized by moderate level of risk perception which is evidence in their mediocre adaptive capability.
- 2) There is moderate level of entrepreneur alertness in SMEs in Rivers State, Nigeria.
- 3) Higher level of entrepreneur alertness promotes resilience of SMEs in Rivers State, Nigeria.
- 4) Higher levels of explorative learning will boost adaptive capability.
- 5) Increase in exploitative learning will cause an improvement in adaptive capability.
- 6) Higher level of risk perception will boost adaptive capability.
- 7) Higher levels of explorative learning will promote Agility.
- 8) Increase in exploitative learning will cause an improvement in Agility.
- 9) Higher level of risk perception will boost Agility.
- 10) Environmental turbulence does not reduce the strength of associated between entrepreneur alertness and corporate resilience.

CONCLUSION AND RECOMMENDATIONS

In view of the results of the empirical analyses conducted, and in line with the aim of the study, we conclude entrepreneur alertness significantly enhance resilience f SMEs in Rivers State, Nigeria. The three dimensions of entrepreneur alertness contained in the theoretical model significantly promote adaptive capability. However, explorative learning accounts for more variation in adaptive capability, while exploitative learning and risk perception contribute less.

This study provides empirical evidence that all three dimensions of entrepreneur alertness contained in the model significantly enhanced agility. Meanwhile, explorative learning gives more explanatory power to the total effect of entrepreneur alertness on agility, while exploitative learning has less effect on target variable. High levels of environmental turbulence enhance the predictive power of entrepreneur alertness on corporate resilience. Based on the findings and conclusion above, the following recommendations are made:

- 1) SMEs in Rivers State should ensure fluid exploitative learning by decoupling work processes. This will make work unambiguous for employees who can be then undertake tasks effectively and efficiently with minimal instructions.
- 2) SMEs should ensure that they are better able to adjust their structural activities to rising demands of their environment.
- 3) SMEs should ensure that they allow mutual participation of employees and managers in decisionmaking to bolster responsiveness of the human capital of the organization.
- 4) To enforce agility, SMEs should imbibe the culture of attaching incentives to operational activities such as reduced delivery time, efficient use of resources etc.
- 5) SMEs should build strong relationship within all functional units and departments in the organisations in a way to increase capacity of organisations to be able to easily increase the organization's ability to identify and capitalize on emerging market opportunities.
- 6) Management of SMEs should ensure customers are satisfied with their service delivery, which would enable customer retention in view of environmental turbulence.

REFERENCES

- Amarikwa, C. M., Omoankhanlen, J. A., & Nwuche, C. A. (2020). Structural alertness and employee driven innovation in Nigerian insurance companies, *International Journal of Multidisciplinary Research*, 6(3), 47-60.
- Anderies, J. M., Folke, C., Walker, B., & Ostrom, E. (2013). Aligning key concepts for global change policy: Robustness, resilience, and sustainability. *Ecology and Society* 18(2), 1-17.
- Anggraini, W., & Sudhartio, L. (2018). Strategic Agility in Environmental Turbulence A case of Banking Sector in Indonesia, *SU-AFBE*, *12*(6), 1-12.
- Baird, L., &I. Meshoulam (1988). Managing two fits of strategic human resource management. *Academy* of Management Review, 13(1), 116–128.
- Buckley, P. J., & Casson M. C., (1998). Models of the multinational enterprise. *Journal of International Business Studies*, 29(1), 21.
- Bueno, E. (1996). Organización de Empresas. Estructura, Procesos y Modelos, Ed. Pirámide, Madrid.
- Calantone, R., Garcia, R., & Dröge, C. (2003). The effects of environmental turbulence on new product development strategy planning. *Journal of Product Innovation Management*, 20(2), 90-103.
- Celtekligil, K., &Adiguzel, Z. (2019). Analysis of effect of innovation strategy and technological turbulence on competitive capabilities and organizational innovativeness in technology firms. *Procedia Computer Science*, 158, 772–780.
- Chen, J., Neubaum, D. O., Reilly, R. R., & Lynn, G. S. (2015). The relationship between team autonomy and new product development performance under different levels of technological turbulence. *Journal of Operations Management*, 33, 83-96.
- Cumming, G. S., Barnes, G., Perz, S., Schmink, M., Sieving, K. E., & Southworth, J. (2005). An exploratory framework for the empirical measurement of resilience. *Ecosystems*, 8(8), 975-987.
- do Nascimento, J. C. H. B., & da Silva Macedo, M. A. (2016). Structural Equation Models using Partial Least Squares: an Example of the Application of SmartPLS® in Accounting Research. *Revista de Educação e Pesquisa em Contabilidade*, 10(3).
- Folke, C (2006). Resilience: the emergence of a perspective for social-ecological systems analyses. *Global Environmental Change*, 16, 253-267.
- Galbraith, J. (1973). Designing Complex Organizations. Reading, MA: Addison-Wesley.
- Ganesh, M., Jose, S. (2004). Adaptive strategies of firms in high-velocity environments: The case of B2B electronic market. *Journal of Global Information Management*, 12(1), 41-49.
- Ganguly, A., Nilchiani, R., & Farr, J. V. (2009). Evaluating agility in corporate enterprises," *International Journal of Production Economics*, 118(2), 410–423.
- Gibson, C. B., & Birkinshaw, J. (2004). The antecedents, consequences, and mediating role of organizational ambidexterity. *Academy of management Journal*, 47(2), 209-226.
- Gomezel, A. S., & Aleksić, D. (2020). The relationships between technological turbulence, flow experience, innovation performance and small firm growth, *Journal of Business Economics and Management*, 21(3), 760–782.
- Gunderson, L. H. (2000). Ecological Resilience In Theory and Application. *Annual Review* of Ecology, *Evolution, and Systematics, 31*, 425-439.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis: Global edition*. Pearson Education Limited.
- Hair, O., Hult, G. T. M., Ringle, R. F., & Knight, G. A. (2014). Innovativeness: Its antecedents and impact on business performance. *Industrial marketing management*, 33(5), 429-438.
- Hamad, Z.M.M. (2016). A structural equation model for analyzing the impact of environmental turbulence on non-financial performance. *Journal of Management and Strategy*, 7(2), 53-72.
- Hamel, G., & Prahalad, C. (1996). Competing for the future. Harvard Business School Press.
- Hearnshaw, E. J. S., Wilson, M. M. J. (2013). A complex network approach to supply chain network theory. *International Journal of Operations and Production Management*, 33(4), 76-87.
- Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic management journal*, 20(2), 195-204.
- Hwang, G. J., & Tsai, C. C. (2011). Research trends in mobile and ubiquitous learning: A review of publications in selected journals from 2001 to 2010. *British Journal of Educational Technology*, 42(4), E65-E70.

- Lacity, M. C., & Willcocks, L. (2008). Information systems and outsourcing: studies in theory and practice, Palgrave Macmillan.
- Lawrence, P. R., & Lorsch, J. W. (1967). Organization and environment: Managing differentiation and integration. Harvard University Press.
- Lepak, M. A., & Snell, S. A. (1999). Establishing a framework for research in strategic human resource management: merging resource theory and organizational learning, Ferris, G. (Ed.): *Research in Personnel and Human Resources Management*, 14, 61–90.
- MacCormack, A., & Verganti, R. (2003). Managing the sources of uncertainty: Matching process and context in software development. *Journal of Product Innovation Management*, 20(3), 217-232.
- Madhani, P. M. (2010). The resource based view (RBV): Issues and Perspectives. PACE, A Journal of Research of Prestige Institute of Management, 1(1), 43-55.
- Maguire, B., Cartwright, S. (2008). Assessing a community's capacity to manage change: A resilience approach to social assessment. Australian Government Bureau of Rural Sciences, Canberra ACT.
- McAslan, A. (2010). Organizational resilience: Understanding the concept and its application. Torrens Resilience Institute, Adelaide, Australia.
- Pavlou, P. A., & El Sawy, O. A. (2006). From IT leveraging competence to competitive advantage in turbulent environments: The case of new product development. *Information Systems Research*, 17(3), 198-227.
- Porter, M. E. (1980). Competitive strategy. The Free Press.
- Sarstedt, M., Ringle, C. M., & Hair, J. F. (2017). Partial least squares structural equation modeling. *Handbook of market research*, 26(1), 1-40.
- Scott, W.R. (1992). Organizations: Rational, natural, and open systems. Prentice Hall.
- Sethi A.K., &Sethi S.P. (1990). Alertness in manufacturing: A survey. *International Journal of Flexible Manufacturing Systems*, 2(4), 289-328.
- Staber, U., & Sydow, J. (2002). Organizational adaptive capacity: a structuration perspective. *Journal of Management Inquiry*, 11(4), 408-424.
- Sushil, O. (2014). Managing continuity and change for strategic performance. *Global Journal of Flexible Systems Management*, *14*(4), 275–276.
- Thebo, J. A., & Shar, A. H. (2020). A moderation analysis of environmental turbulence and organizational leadership between the relationship of intellectual capital and frugal innovation in SMEs in Pakistan. *International Journal of Disaster Recovery and Business Continuity*, 11(1), 3122-3132
- Volberda, H.W. (1997). Building flexible organizations for fast-moving markets. *Long Range Planning*, *30*(2), 169-183.
- Wang, C. L., & Ahmed, P. K. (2007). Dynamic capabilities: A review and research agenda. *International Journal of Management Reviews*, 9(1), 31-51.
- Weick, K. E. (1982). Management of organizational change among loosely coupled elements. In P. S. Goodman (ed.). *Change in organizations: New perspectives on theory, research and practice*. Jossey Bass.
- Worley, C. G., Williams, T. E., & Lawler, E. (2014). *The agility factor: Building adaptable organizations for superior performance*, Jossey Bass.
- Yousuf, A., Haddad, H., Pakurár, M., Kozlovskyi, S., Mohylova, A., Shlapak, O., &János, F. (2019). The effect of exploitative learning on performance: A field study on small and medium-sized industrial companies in Jordan. *Montenegrin Journal of Economics*, 15(1), 047-060.
- Zahra, S. A., & George, G. (2002). Absorptive capacity: A review, reconceptualization, and extension. *Academy of Management Review*, 27(2), 185–203
- Zhang, Q., Vonderembse, M., & Lim, J. (2003). Manufacturing alertness: Defining and analyzing relationships among competence, capability, and customer satisfaction, *Journal of Operations Management*, 21(2), 173-191.
- Zhao, W., Yang, T., Hughes, K. D., & Li, Y. (2021). Entrepreneurial alertness and business model innovation: the role of entrepreneurial learning and risk perception. *International Entrepreneurship* and Management Journal, 17(2), 839-864.