

Innovation and Organizational Resilience: A Study of Selected Small Scale Firms (SCFs) in Abuja Metropolis

¹Adebayo I. ADIO and ²Jamiyu A. IBRAHEEM

¹Department of Entrepreneurial Studies, College of Management Sciences, Micheal Okpara University of Agriculture, Umudike, Abia State, Nigeria.

²Department of Business Administration & Management, Federal College of Agriculture, Ishiagu, Ebonyi State, Nigeria

Abstract: *This study investigated the influence of innovation on organizational resilience in the small and medium scale enterprises industry. The survey design was adopted. Data were obtained from 108 managers from a population of 385 management staff of the 7 selected small scale firms in Abuja, Nigeria. The instrument adopted for data collection was the questionnaire. A total of 78 questionnaires were retrieved and also analyzed. The Spearman's Rank correlation coefficient tool was used to test the hypotheses. Findings revealed that product innovation is significantly related to adaptability and vulnerability. Based on these findings the study concluded that organizational innovation has significant influence on resilience. Product innovation promotes adaptability and makes small scale organizations less vulnerable. The study therefore recommends that small scale organizations should create an enabling environment which encourages employee creativity and innovative capacities which will play a key role in building organizational resilience. Small scale firms should also implement policies and processes which would allow for informed changes to structure, work processes and operations which in turn would be beneficial to the organization*

Key words: *Innovation, Organization Resilience, Adaptability and Vulnerability*

© 2019. Adebayo I. ADIO and Jamiyu A. IBRAHEEM. This is a research/review paper, distributed under the terms of the Creative Commons Attribution-Noncommercial 4.0 Unported License <http://creativecommons.org/licenses/by-nc/4.0>, permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

INTRODUCTION

In modern times where uncertainty is the order of the day, organizations that are proactive and innovative and takes the right decision could be the organization that survives in this dynamic and ever changing business environment (Awa & Kalu, 2012). Resilience is now a much-needed element in the repertoire of any business about changing environmental factors.

In the past two decades, attention of business managers and scholars have continued to shift towards the importance of innovation in building organizational resilience. Innovation is one of the instruments that leverages a firm upon entering new and existing market, and provide the company with a competitive edge. Innovation opens new ground and opportunities in both local and international market by offering new products and ideas to both local and foreign markets. As businesses operate over a period of time, it faces different kinds of challenges in the environment; some of these challenges could lead to business failure, especially when the firm is

not resilient.

Plessis, (2007) opines that innovation is a formation of new knowledge that helps the new business gain returns, with the main aim of making the organizations internal business process and structure more sophisticated so as to produce market acceptable products and services. Innovation creates value for businesses (Akram *et al*, 2011) considering the degree of change in customer tastes and desires, and the degree of dynamism in the business environment. The survival of an organization could to a great deal depend on how well they can bounce back from business setbacks and challenges. In some cases people use innovation and creativity interchangeably without highlighting the difference between the two, innovation however involves creativity (Amabile *et al*, 1996) but at the same time it takes a lot more than creativity to bring about organizational innovation. Scholars (Plessis, 2007; Nielson 2006; Allen, 1977, Bressman & Dirkinshaw, 1999; Awa & Kalu, 2012; Eze *et al*, 2013) approach innovation differently. Innovation is viewed by some profession as the introduction of a new good, to others it is the introduction of new methods of production while some consider it as creation or opening of new markets.

In today's highly competitive and sensitive business environment, with the consistent and persistent change in customer taste and desires, and with firms struggling to remain relevant in the industry, ideas are no longer centered on cost reduction and mass production with companies paying more attention to customer needs. Innovation has become a vital instrument for top firms to build competitive advantage above those that are less innovative. Current research (Awa & Kalu, 2012; Eze *et al*, 2013) has shown that companies that are usually market leaders are companies who have innovative competencies and uses such competencies to satisfy variety of customer with different needs, thereby making it difficult for customers to switch brands of customers switching brands, while attracting competitor's brands. Firms cannot survive through cost reduction and re-engineering alone. Innovation is a key factor in organizational resilience (Davila *et al*, 2006). Organizations have identified the numerous advantages presented by innovation and have sought to explore it in every possible way, either to improve quality or create new market or sometimes in attempt to reduce labour cost.

The term innovation in many cases refers to both radical and incremental changes in thinking, in things, in process or in service (Mckeown, 2008). Radical innovation - is a product, service and process with entirely new and unique improvement in its existing features which in turn improves the value and cost of performance (Leifer *et al*, 2007; Akram *et al*, 2011). Radical innovation presents greater risks to firms who go into them as it is associated with lots of uncertainty, and are more difficult to commercialize (Akram *et al*, 2011). Radical innovation involves a complete system overhaul, plants and machineries used in previous business may be less relevant to current business.

Incremental innovation – basically refers to a modification on existing product or service usually to attract a slightly different target market in the industry (Akar, 2001; Akar & Keller, 1990). Incremental innovation most times is likened to as line extension; it does not need to significantly diversify from current business (Akram *et al*, 2011). This type of innovation builds the skills and competencies of the employees in an organization and helps the organization increase its market share and remain relevant in the industry (Banbury & Mitchell, 1995).

Generally, resilience is a crucial characteristic in this unpredictable business environment. Trees can only survive storms if they can bend in the wind Feather, (2011). We have seen time and again that the most successful businesses are resilient enough to bounce back from any crisis. Many organizations have failed to recognize the importance of building and

putting in place resilient plans and machineries that will help companies and organizations recover from unforeseen changes.

In the early 2000, Nigeria witnessed the emergence of many small scale enterprises firms. This led to high level of market competition and organizations struggled to retain market share by these organizations. Environmental challenges became another problem the people had to deal as many people were being discouraged from patronizing some of these organizations. The outcome of this is that many of these firms could not see the light of the day 10 years down the line. It was on the back drop of this that study seeks to find out how organizations can survive these challenges and remain strong in business. The main aim of this study is to evaluate the relationship between innovation and organizational resilience. The other specific objectives formulated include:

1. To examine the significant relationship between product innovation and adaptability
2. To investigate the level of relationship between product innovation and vulnerability.

REVIEW OF RELATED LITERATURE

2.1. Conceptual Framework

2.1.1. The Concept of Innovation

Baumol, (2004) emphasizes that despite the importance of innovation for the development of organizations and sectors, the scientific literature has found it difficult to trace the development of a theoretical point of view, especially when dealing with organizational innovations.

“Innovation is generally understood as the successful introduction of a new thing or method... innovation is the embodiment, combination, or synthesis of knowledge in original, relevant, valued new products, processes, or service” (Luecke & Katz, 2003: 4).

In some cases people inter use innovation and creativity without knowing the big difference between the two, innovation however involves creativity (Amabile et al, 1996) but at the same time it takes a lot more than creativity to bring about organizational innovation. Scholars In every field of study today, approach innovation differently. Innovation is viewed by some profession as the introduction of a new goods, to others it is the introduction of a new method of production while some consider it as creation or opening of new markets.

In today’s highly competitive and sensitive business environment, with the consistent and persistent change in customer taste and desires, and with firms struggling to remain in relevant positions in the industry, ideas are no longer centred on cost reduction and mass production with companies paying more attention to customer needs. Innovation has come in handy for top firms to build competitive advantage than those that are less innovative. Current research has shown that companies that are usually market leaders are companies who have innovative competencies and uses such competencies to satisfy variety of customer with different needs, thereby elimination the opportunity of customers switching brands but still attracting competitor’s brands. Companies cannot grow through cost reduction and reengineering alone... innovation is the key element in providing aggressive top-line growth and for increasing bottom – line results (Davila et al, 2006). Organizations have identified the numerous advantages presented by innovation and have seek to explore it in every possible way, either to improve quality or create new market or sometimes in attempt to reduce labour cost.

2.1.2 The Concept of Product Innovation

Innovation is considered as a very important factor for the survival and development of the competitive strength of any organization. Firms need to come to terms with the threats of constantly increasing global competition. This brings about a high volume of innovative products developed by organizations flooding the market. The development of new product for industrial firms is pillar upon which growth is built. The competitive advantage or position a firm build is to a great extent determined by the ability to innovate it's product and the time required to bring new products to the public domain. Firms are constantly introducing new and more sophisticated products in a rapid and fast cycles but their ability to pull off full scale production volume is crucial for success (Pisano, 1997). Product life cycles are getting shorter and this is pressuring many firms into expansion of production capacity in a quicker sequence to generate sales revenue.

For industrial companies, innovations of the product systems and mainly innovations of the related processes are critical. Based on technological factors, there is a tight relationship between technical products and the processes built to generate these products. In developing innovative strategies, consideration must be given to underlying product-process interactions. (Utterback, Abernathy 1975; Hayes, Wheelwright 1979 a, 1979 b; Kim *et al* 1992). Prior to the introduction of new products, changes in the process requirements must also be considered. "The tightness of the relationship between product and process features varies with the industrial sector. In the process industries like chemicals, pharmaceuticals, and biotechnology a close relationship between products and production process can be noticed" (Pisano, 1997:13)

2.1.3 The Concept of Organizational Resilience

Resilience is the organization's capability to predict major future events from gradually unfolding trends, constantly adapting to change, and rapidly bouncing back from disaster. The business environment is quickly becoming more connected, unpredictable and very volatile and the impacts of external events are more substantial. Late or inappropriate response will but the organization at a risk of being left behind.

The concept of resilience gained considerable attention in the last three decades as organizations strive to face constant changes in the environment, where the focus was upon the ability of systems to cope with changes in the environment (Petak, 2002). In the mid-1980s, resilience was mainly used to refer to human environmental interactions, exhibited in discussions of organizational sustainability (Lélé, 1998) and in the late 1970s/early 1980s it manifested in behavioural studies where it depicted an individual's capacity to withstand and rebound from crisis (Walsh,1996). Resilience was first used to refer to organizations by (Wildavsky, 1988). However, it took till the late 1990s before scholars started the application of resilience to organizations and the study started gaining popularity (Umoh, Amah and Nwokocha, 2014). Since then, there has been scholarly work with respect to other phenomenon for example, resilience in the face of earthquakes (Petak, 2002).

There have also been specific case studies, for instance, relating to Hurricane Katrina and the capacity of New Orleans to recover (Campanella, 2006). We have also had a broader discussion of resilience in relation to other field of studies such as healthcare systems (Mallak,1998), business supply chains (Christopher & Peck,2004), information systems (Comfort *et al.* 2001) and resilience engineering (Hollnagel *et al.* 2006; Woods & Wreathall, 2003). In his classic work "Searching for Safety" (Wildavsky, 1988) called for caution in the use of anticipatory strategies and use of rule of thumb in building resilience strategies. He is of the

opinion that anticipation could bring about a great deal of wasted effort and resources orchestrated by hypothesized risks, which are mainly exaggerated or are false predictions.

2.1.4 The Concept of Adaptability

In trying to build 'bounce-back' capabilities, managers should build and develop the organization's absorptive capacity, by facilitating environmental scanning in search of valuable external information which would be easily assimilated exploited. Walker *et al* (2002:3) define adaptive capacity as "an aspect of resilience that reflects learning, flexibility to experiment and adopt novel solutions, and the development of generalized responses to broad classes of challenges". Folke *et al*, (2003) as quoted in Umoh *et al*, (2014) identified four dimensions of adaptive capacity:

Learning to live with uncertainty
Nurturing diversity for reorganization and renewal
Combining different types of knowledge for learning
Creating opportunities for self-organization.

Armitage (2005) adapts Folke *et al*'s (2003) four dimensions for socio-institutions. In a socio-institution context, adaptive capacity will depend mainly on the attributes of individuals, and organizations that could encourage learning when challenged with change and uncertainty, such as willingness to learn from mistakes and make better future decision.

Adaptive capacity may be defined as the ability or inclination of individual or group to maintain an experimental attitude towards new situations as they occur and to act in terms of changing circumstances (McManus 2007). The ability of an organization to adapt is characterizes their ability to display resilient characteristics. Amah and Baridam (2012) discuss the relevance of adaptation and concluded that the goal is to gain advantage over less adaptive competitors. This suggests that adaptive capacity is also linked to competitiveness.

2.1.5 The Concept of Vulnerability

Organizations in this study do have ongoing risk identification processes and have engaged in some emergency and recovery planning. "These are typically the larger organizations in terms of employee numbers and often have the backing or driving force of a parent company, or even other organizations within the industry (Lengnick-Hall & Beck, 2003). Most times when the process of planning is directed by (but not performed by) the parent company it is considered to only has partial relevance to the organization at a local level. Vulnerabilities depict the identification coupled with proactive management, and treatment of vulnerabilities that if realized, could threaten the ability of the organization to survive. "This includes emergency and disaster management, and business continuity, and covers many of the traditional crisis planning activities. It focuses on organization participation in planning activities including risk management, business continuity and emergency management planning. It also the way organization has been involved in external emergency exercises or created exercises internally for staff and stakeholders" (McManus, 2007)

2.1.6 Relationship between Innovation and Organizational Resilience in Small Scale Firms

Reasonable effort has been made in an attempt to explain firm's resilience and industry change (Agarwal & Gort 2002; Klepper & Simons 1997; Klepper & Thompson 2006). Innovation

however features prominently in the case studies of industry change and growth from one stage to another, the analysis of the issue has mainly failed to account for the complex nature of the innovation process. Many studies particular, did not account for the fact that while some innovations succeed, a good number of them failed. Innovation in essence increases the likelihood of exceptional performance as well as death. In this work, we attempt to disentangle these two effects. The major line of argument or approach adopted in most work of firm's resilience is the argument that innovation is the essence or the main reason for firm's survival because in most cases only those firms that can successfully innovate are able to build and sustain a competitive advantage in the market (Wagner, 1999). There is however an element of truth in this argument, but it is faulted because it only tells one side of the story since it doesn't present the argument or fact that innovation, especially those that are new-to-the-world, are subject to uncertainty.

2.2 Theoretical Framework

A critical look into the definition provided in the existing literature should involve three important considerations. The first consideration suggests that innovation is not something to be defined single handedly and in a unified manner. Innovation can either be a new product, a new service, a new technology, or a new administrative practice (Hage, 1999). In a different way, each of these areas of innovation can take five general forms including diversification of the existing pool of products and services; newer addition and versions of the existing types; introduction of a completely new item; improvement of presentation techniques and styles; and development of participation models.

The second consideration advocates that although the general notional properties of organizational innovation have been fairly consistent, but the nature and kinds of the investigated innovations have been changed overtime. While in 1960s and 1970s public sector organizations and their incremental change were the prime focus, private sector organizations' radical change occupied the investigation trends in 1980s and 1990s (Hage, 1999). Besides, later investigations on innovation involved more on the analytical focus on advanced manufacturing technologies rather than counting the number of innovations within a particular time frame (Zammuto & Connor, 1992). On the other hand two broad categories of innovation have received less attention in the study innovation in the advance management literature: a) innovations in large-scale technical systems such as nuclear energy, electrical railroad, high-speed trains and telephone systems and coaxial cables; and b) radical innovations in the components of assembled products such as cars, trains and commercial airplanes (Hage, 1999).

The third area of consideration comprises that the conceptual organization of „organizational innovation“ by the scholars could not provide a coherent theoretical framework in defining the concept with its implicated complexities. Hence, the phenomenon remained susceptible to differing interpretations and contextualization.

Lam (2004) classified this body of diverse interpretations into three different streams. He recognized that these strands have empirical overlaps but they were theoretically distinct to the level that they hindered the process of developing a clear view of „organizational innovation and interrelations between its different dimensions. The three streams include:

I. Organizational Design Theories: This set of theories defined organizational innovation from the perspective of structural characteristics of organizations. Focusing on the link between structural forms and the propensity of an organization to innovate, scholars like Mintzberg

(1979) and Teece (1998) aimed to determine the effects of organizational structural variables on product and process innovation.

II. Theories of Organizational Cognition and Learning: These theories, in contrast, defined organizational innovation based on cognitive foundations of organizations at the micro-level. Emphasizing on the learning and organizational knowledge creation process, this camp of research investigated innovation capabilities of organizations depending on the firms' capacity to create and exploit new knowledge (Nonaka & Takeuchi, 1995).

III. Organizational Change and Adaptation Theories: this strand defined innovation as an outcome of the creation of new organizational forms. In the context of technological changes and radical environmental shifts, innovation is considered as a capacity to respond to changes in the external environment, and to influence and shape it (Child, 1997).

METHODOLOGY

3.1 Research Design and Population

The cross sectional survey which is a form of the quasi experimental research design was adopted for this study. The population consists of 385 management staff in the selected small scale firms in Abuja, Nigeria. The search revealed a total of 18 companies and 7 of them were sampled. We arrived at a sample size of 108 using the Taro Yamane formula. The simple random sampling method was used in selecting the respondents mainly because of the heterogeneous nature of the industry under investigation (small scale enterprises).

The questionnaire instrument adopted in this study was structured into two sections, A and B. section A captures the demographic details of the respondent while section B gathers data about the criterion variable and the predictor variable. Innovation being the predictor variable is measured on a 7 point item while organizational Resilience being the criterion variable measured with adaptability and vulnerability has 4 items measuring each giving us 8 items on the instrument. The instruments were scaled on a 5 – item Likert scale ranked from (1) strongly agree (2) disagree (3) undecided (4) agree (5) strongly agree (Okpu and Kpakol, 2015).

3.2 Validity and Reliability Test

Questionnaire used in this work was subjected to face and content validity to ensure that the instrument could do what it is expected to do in this study. Experts in the field were also consulted. The researcher carried out a pilot testing using 10 workers in testing the reliability of the instrument. The responses they gave masterminded some modification in the questionnaire contents before it was administered to respondents. The reliability was tested through the "Test Retest Reliability" method. The test showed a good relationship with a coefficient of reliability of 0.8.

Table 4.1 showing the outcome of distributed questionnaires

| | | |
|-------------------------------------|-----|------|
| Number of Questionnaire Distributed | 108 | 100% |
| Number of Questionnaire Retrieved | 83 | 77% |
| Number of Usable Questionnaire | 78 | 72% |

Source: SPSS Output

Table 4.1 above is used to illustrate the questionnaire distribution and retrieval process. It also illustrates the number of questionnaires which were considered useful and included in the study as a result of the cleaning process which entailed; the identification of blank questionnaires, bad

entries, and high incidence of missing values and omissions and error in item checks. Hence, Out of a total of 108 distributed questionnaires, 78 were considered useful and included in the study as shown in table 4.1

DATA ANALYSIS, PRESENTATION & DISCUSSIONS

4.1 Demographic Analysis

Here, the outputs of our demographic data analysis are presented. The presentations would help us understanding the nature of the demographic distribution of our sample population.

Table 4.2 showing the gender distribution of respondents

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------|-----------|---------|---------------|--------------------|
| Valid | Male | 47 | 60.3 | 60.3 | 60.3 |
| | Female | 31 | 39.7 | 39.7 | 100.0 |
| | Total | 78 | 100.0 | 100.0 | |

Source: Research data, 2019

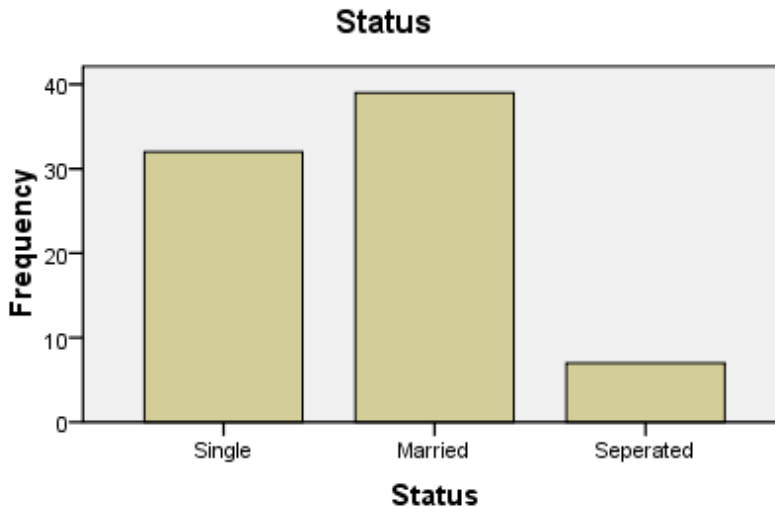


Fig 4.2 showing the bar chart for marital status

Table 4.3 and fig 4.2 clearly show the marital status of respondents with a greater percentage of respondents falling into the married category (50%) followed by those who are still single (41%). The least comprises of respondents in the seperated category (9%).

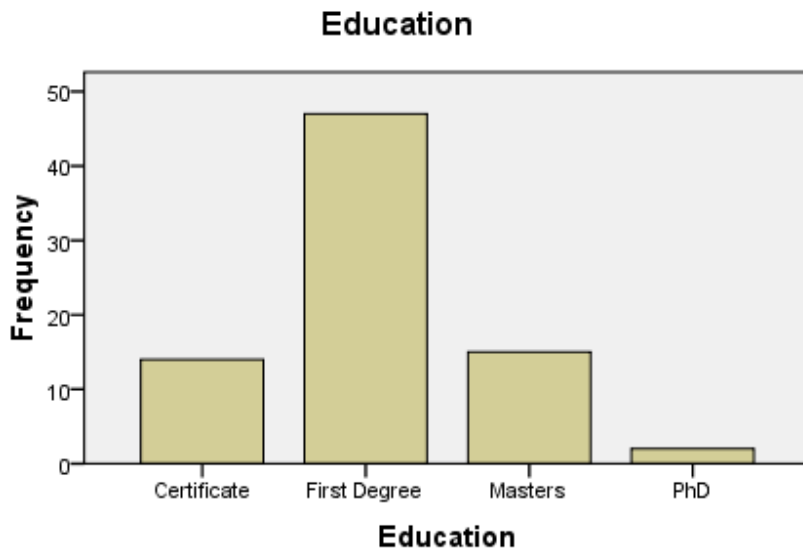


Fig 4.4 showing the pie chart for Qualification attained

Table 4.5 and fig.4.4 shows the educational qualification of our respondents. The chart shows that a good number of our respondents possess First degrees (60%), this is followed by those with other master degrees (19%), then those with professional Certificate qualifications (18%) and finally those who have obtained a PhD (3%).

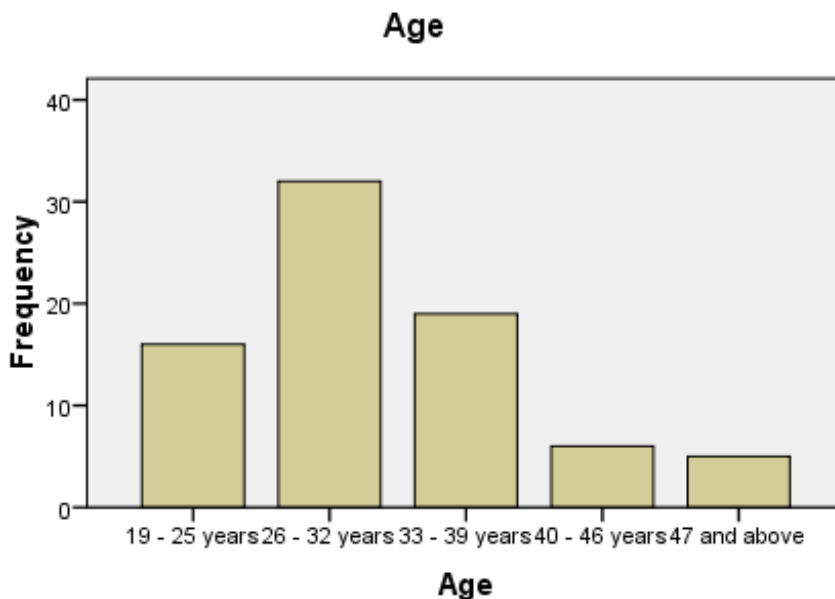


Table 4.4 and fig 4.3 illustrate that more of the respondents fall between the (26 - 32) years age bracket, followed by the (33 – 39) years bracket, then the (19 – 25) years age bracket, and the (40 – 46) years bracket, and finally the (47 and above) age bracket.

4.2 Univariate Analysis

This section covers the univariate analysis on each variable, their indicators and measures and finally the latent concepts. Analysis here includes the use of frequency tables, mean scores, standard deviation coefficients which are used to assess the normality of data distributions. The study variables include the independent variable (innovation) and its measures; process innovation, product innovation and administrative innovation; the dependent (Organizational resilience) variable and its measures; vulnerability and adaptive capacity, and finally the contextual variable which is organizational culture. Table 4.6 indicates our analysis for output of the criterion variable Innovation. The variable in this study is measured on a 5 point Likert scale where (5) represents strongly agree and (1) representing strongly disagree. The mean scores show a tendency or probability of agreement with very low standard deviation scores.

Table 4.6 showing Statistics for Innovation

| | N | Minimum | Maximum | Mean | Std. Deviation |
|-------------------|----------|----------------|----------------|-------------|-----------------------|
| Innovation | 78 | 1.00 | 5.00 | 3.9541 | .99518 |
| Product | 78 | 1.00 | 5.00 | 3.9359 | 1.11762 |

Source: Research Data, 2019

Table 4.7 also summarizes the responses to the dependent variable using the average mean scores of its measures. The mean scores indicate agreement levels of responses with the lowest at 3.7249 and with the highest standard deviation score at 1.07613.

Table 4.7 showing the Statistics for organizational Resilience

| | N | Minimum | Maximum | Mean | Std. Deviation |
|----------------------------------|----------|----------------|----------------|-------------|-----------------------|
| Organizational Resilience | 78 | 1.00 | 5.00 | 3.9679 | 1.07613 |
| Vulnerability | 78 | 1.00 | 5.00 | 3.9881 | .900312 |
| Adaptive | | | | 3.7249 | .837910 |
| Valid N (list wise) | 78 | | | | |

Source: Research data, 2019

Shown above is the output for the dependent variable which is Organizational growth with mean scores indicating degrees of agreement.

4.3 Hypotheses Testing

For the secondary data analysis, all hypotheses are tested and bivariate relationships examined and a benchmark of 95% confidence interval was adopted at a 0.05 level of significance.

Table 4.10 showing test for hypotheses three

| | | Vulnerability | |
|-----------------------|----------------|-------------------------|--------|
| Spearman's rho | Product | Correlation Coefficient | .701** |
| | | Sig. (2-tailed) | .000 |
| | | N | 78 |

Source: Research data, 2019

The tables above shows a positive relationship between product innovation and vulnerability (HO₃) is significant at a probability value of 0.000 and a rho value of 0.701 where (p<0.05).

Table 4.11 showing test for hypotheses four

| | | Adaptive | |
|-----------------------|----------------|-------------------------|--------|
| Spearman's rho | Product | Correlation Coefficient | .691** |
| | | Sig. (2-tailed) | .000 |
| | | N | 78 |

Source: Research data, 2019

From the table it can be observed that the relationship between product innovation and adaptive capacity (HO₄) is significant at a probability value of 0.000 and a rho value of 0.691 where (p<0.05).

4.4. Discussion of findings

The findings of our study, shows a relationship between our independent variable which is innovation and the dependent variable which is organizational resilience. The study illustrates the need for management to effectively manage their operations through innovative processes, products and administration in order to achieve a sustainable resilient organization. Thus to achieve resilience it is important to draw adequately upon the capabilities of the employees and other organizational resources, as well as the innovative use of knowledge, skill, technology and other innovative mechanisms.

Therefore all previously stated null hypotheses are, based on our findings and analysis, rejected. The output of our data analysis thus finds that:

- i. There is a relationship between product innovation and vulnerability. This finding agrees with the work of Weick *et al*, (1999) that product innovation has negative relationship with vulnerability. He discovered that innovative firms in most cases are

less vulnerable to changes as they have high adaptive capacity. Damanpour and Gopalakrishnan (2001) discovered a negative relationship between product innovation and vulnerability he is of the opinion that innovative firms are less vulnerable and has the ability to withstand the unthinkable by having innovative product the firm can fall back to for survival.

- ii. There is a positive relationship between product innovation and adaptive capacity. Our findings also agree with the work of Weick et al, (1999) that product innovation has a significant and positive relationship with adaptive capacity. Damanpour and Gopalakrishnan (2001) also went further to state that product innovation has the ability to build an internal shock absorber for a firm by making sure the firm can adapt to changes without major damage. Cordier et al (2008) also support the findings of Damanpour and Gopalakrishnan (2001) by discovering a significant relationship between product innovation and adaptive capacity of a firm.

CONCLUSION AND RECOMMENDATIONS

The intent of the empirical endeavor was to investigate the relationship between innovation and organizational resilience. The study findings from our analysis support a correlation between both variables as the dimension of innovation (product innovation) strongly and significantly associate with resilient an organization can be, and it is on the backdrop of these findings that we therefore conclude that innovative activities should be encouraged in order to enhance the resilient stance and capacities of the small scale enterprises/organizations.

In view of the research and the importance of innovation in achieving organizational resilience, the following recommendations are important to Small Scale:

- The organizations through institutionalized policies can effectively manage their innovative tendencies and activities.
- Organizations should create an enabling environment which encourages employee creativity and innovative capacities
- The organizational atmosphere should be structured by management in such a way that appreciates and recognizes employee efforts and contributions to the organization
- Small Scale firms should ensure modification and improvement on their products from time to time.

REFERENCES

- Adler, P. S., Goldoftas, B. & Levine, D. I. (1999) Flexibility versus efficiency? A case study of model changeovers in the Toyota production systems. *Organization Science*. 10(1), 43-68.
- Alaei, A., Shafae, J., Ariana, A. and Maghvan, T. S (2012), "The role of knowledge management in created organizational Innovation", *Journal of Applied science Research*, 2(2), 1136-1141.
- Amah, E and Baridam, D (2012) Adaptability and Organizational Effectiveness: A Study of the Nigerian Banking Industry. *International Journal of Business and Management Tomorrow*. 2(3), 122-131
- Awa, H.O and Kalu, S. E. (2010), "Repositioning the Non-incremental changes and Business Strategic Windows Correlates" *Journal of Business and Management*, 5(2), 184-193.
- Baridam, M.D. (2001), "Research methods in Administrative Science". *Belk Publishers*, Port Harcourt.

- Bell M. (2002). *The Five Principles of Organizational Resilience*. Gartner Inc., Stamford, Connecticut.
- Bierly, P. E., Kessler, E. H. & Christensen, E. W. (2000) Organizational learning, knowledge and wisdom *Journal of Organizational Change Management*, 13(6), 595-618.
- Bock, G. (2001) Determinants of the Individual's Knowledge Sharing Behavior the Organization: The Theory of Reasoned Action Perspective. *Ph. D Dissertation, Korea Advanced Institute of Science and Technology*.
- Buckle, P. (2006). Assessing Social Resilience. In D. Paton & D. Johnston (Eds.), *Disaster Resilience: An Integrated Approach*:
- Cardinal, L.B., Alessandria, T.M and Turner, S.F (2001), "knowledge codifiability, resources and science based innovation", *Journal of knowledge management*, 5(2), 195 -204
- Carlsson, S. (2008). Enhancing knowledge acquisition through the use of KMS. *Proceedings of the 5th International Conference on Intellectual Capital and Knowledge Management*, New York: New York Institute of Technology Systems.
- Charles C. Thomas.Christensen, C.M. & Raynor, M. E. (2003). *The Innovators Solution: Creating and Sustaining Successful Growth*. Harvard Business School Press, Cambridge, MA.
- Child, J. (1997). Strategic Choice in the Analysis of Action, Structure, Organizations and Environment: Retrospect and Prospect. *Organization Studies*, 18(1): 43-76
- Cohen, M. D. & Sproul, L. E. (1991) Editors' introduction *Organization Science* 2(1) 1-3 (Special Issue on Organizational Learning – Papers in honor of [and by] James G. March).
- Comfort, L.K., Sungu, Y., Johnson, D. & Dunn, M.(2001), "Complex systems in crisis: anticipation and resilience in dynamic environments", *Journal of Contingencies and Crisis Management*, 9(3), 144-158.
- Corporate Nigeria (2010). *The problems facing Nigerian Manufacturing Industry*. Available At <http://www.corporate-nigeria.com/index/industry/industry-overview.html>
- Coutu, D. L. (2002). How resilience works. *Harvard Business Review*. 80(5), 46-55.
- Creswell, J.W. (2003) "*Research Design: Quantitative and mixed methods approaches*", 2nd Edition. UK: Thousand Oaks
- Daft, R. L. & Huber, G. P. (1987) How organizations learn: a communication Frame work *Research in Sociology of Organizations* 5, 1-36.
- Daft, R.L (1998) *Organization Theory and Design*, 6th Ed, South-western College Publishing, Cincinnati, Ohio.
- Dalziell, E., & McManus, S. (2004). *Resilience, Vulnerability and Adaptive Capacity: Implications for System Performance*. Paper presented at the International Forum for Engineering Decision Making.
- Davenport, T.H., and Prusak, L. (1998). *Working Knowledge*. Boston: Harvard Business School Press.
- Davis, H. T. and Nutley, S. M (2000) Developing Learning Organization in the National Health Service. *British Medical Journal April*, 23-34
- Drucker, P. (1994), "The Theory of Business", *Harvard Business Review*, Sep, 95-104.
- Freeman, S. F., Hirschhorn, L., and Maltz, M. (2004) Organizational Resilience and Moral Purpose: Sandler O'Neill and Partners in the aftermath of 9/11/01. Paper presented at the National Academy of Management meetings, New Orleans, LA

- Gloet, M. and Terziovski M. (2004), “Exploring the relationship between knowledge management practices and innovation performances”, *Journal of manufacturing technology management*, 15(5), 46- 66
- Hamel, G (1991), “Competition for Competence and inter-partner Learning within international Strategic Alliances”, *Strategic management Journal*, 12(5), 83-103
- Hamel, G., Doz, Y.L. and Parahald, C.K. (1989), “Collaborate with your Competitors and win”, *Harvard Business Review*, 67(1), 133-139.
- Hage, J. T. (1999). Organizational Innovation and Organizational Change. *Annual Rev. Sociology*, 25, 597-622
- Holling, C.S (1973) Resilience and Stability of Ecological Systems. *Annual Review of Ecology and Systematic*, 1(4), 1-23.
- Kendra, J. M; Wachtendorf, T. (2003) Elements of Resilience: After the World Trade Center Disaster: Reconstructing New Yorks City’s Emergency Operations Center. *Disasters* 27(1), 37-53.
- Lam, A. (2004). *Organizational Innovation, Working Paper No. 1 BRESE*, School of Business and Management Brunel University
- Leifer, R. and O’Connor, G.C and Rice, M. (2001), “implementing Radical Innovation in Mature Firms: The Role Hubs”, *The Academy of Management Executive*, 15(3), 102-113
- Lengnick-Hall, C.A; Beck, T. E (2003) Beyond bouncing back: The concept of organizational resilience. *Paper presented at the National Academy of Management meetings*, Seattle, WA.
- Madni, A. M. (2007). Designing for Resilience. *ISTI Lecture Notes on Advanced Topics in Systems Engineering*.
- Mallak, L. (1998). Measuring resilience in health care provider organizations. *Health Manpower Management*, 24(4), 148-152.
- McManus, S., Seville, E., Vargo, J., & Brunson, D. (2008). A Facilitated Process for Improving Organizational Resilience. *Natural Hazards Review*, 9(2), 81-90.
- Messa, S. and Testa, S. (2004), “Innovation or Imitation? Benchmarking: A Knowledge management process to innovate services”, *Benchmarking: An International Journal*. 11(6), 610-620.
- Meyer, A.D. (1982) Adapting to environmental jolts. *Administrative Science Quarterly*, 27: 515-537.
- Miller, D. (1996) A preliminary typology of organizational learning: synthesizing the literature *Journal of Management* 22(3), 485-505.
- Mintzberg, H. (1979). *The Structuring of Organization*. Englewood Cliffs, N.J.: Prentice Hall.
- Nonaka, I. & Takeuchi, H. (1995). *The Knowledge Creating Company*. New York: Oxford University Press
- Plessis, M.D. (2007), “The role of knowledge management in Innovation” *Journal of knowledge management*, 11(4), 20-29
- Simonin, B.L (1999), “transfer of marketing know-how in international strategic Alliances: An empirical investigation of the role of antecedents of knowledge ambiguity”, *Journal of international business studies*, 30(1), 463-490
- Teece, D.J. (1998). Design issues for Innovative Firms: Bureaucracy, Incentives and Industrial Structure in A.D. Chandler, Jr.,P. Hagstrom, and O. Solvell (eds.). *The Dynamic Firm*, Oxford: Oxford University Press
- Zammuto, R, O. & Connor E. (1992). Gaining advanced manufacturing technologies benefits: the role of organizational design and culture. *Academic Management Review*, 17, 701-728