

Knowledge Acquisition and Organizational Resilience in Nigerian Manufacturing Organizations

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Abstract

This study examines the relationship between knowledge acquisition and organizational resilience. The sample for the study consisted of one hundred and twenty eight (128) employees from the thirty four manufacturing companies that are registered with the manufacturers Association of Nigeria, Rivers State Council. The study utilized both quantitative data (questionnaire) and qualitative data (interview). The spearman rank correlation coefficient and Multiple Regression Model using the Statistical Package for Social Sciences (SPSS) version 17 were utilized for the analysis of data. Our finding revealed a positive and significant relationship between knowledge acquisition and organizational resilience. Specifically, knowledge acquisition was revealed to have a positive and significant influence on organizational resilience. Based on this finding, it was concluded that knowledge acquisition enhances organizational resilience. More specifically, it was concluded that knowledge acquisition, enhances organizational adaptation, organizational resourcefulness, and organizational learning. It is recommended that organizations should continue to strengthen their knowledge acquisition practices in their everyday activities as this is a sure guarantee for their resilience. The managerial implications of these findings were also discussed.

Keywords: Knowledge Management, Knowledge Acquisition, Organizational Adaptation, Organizational Resourcefulness, Organizational Learning.

1. Introduction

Organizations do not exist in vacuum rather they mutually dependent on their external environment. the external environment is dynamic and experiences constant disturbances which include: labour strikes, availability of raw materials, change in customer taste and preferences, power supply, terrorist attacks and natural disasters like (e.g flood, earthquakes, etc). Nigeria is not immuned to the impacts of the recent global financial crises. however, according to Weick and Sutcliffe, (2001), organizations prepare themselves for failure, much like nuclear aircraft carriers, and this preparation alone is the main ingredient to the organization's resilience—they are always preparing for the worst, and therefore, attempts at dismantling such an organization have remained a monumental task. Anyanwu, (2000) listed low level of technology, low level of capacity utilization rate, low investment, high cost of production, inflation and poor performing infrastructure as the lingering problems facing the Nigerian Manufacturing Sector. The biggest problem facing manufacturers over the past decade has been inadequate infrastructure in general and lack of power supply in particular (Corporate Nigeria, 2010). They went on to state that between 2000 and 2010, more than 850 manufacturing companies were either shut down or temporarily halted production. Capacity utilization in manufacturing is around 53%. Imports of manufactured goods dwarf sales of home-grown products – manufactured goods have constituted the biggest category of imports since the 1980s. Other problems facing the Nigeria manufacturing industries, include; heavy tax payment, corruption, counterfeiting, kidnapping/youth restiveness, flood, poor purchasing power, etc.

In the midst of all these disturbances, however, organizations strive to make profit and continue to exist no matter the circumstances surrounding them. These natural and man-made crises and disasters have raised an awareness of the need for organizational resilience. According to Umoh, (2009), “only variety absorbs variety.” This implies that organizations cannot control the variety unless they possess the requisite variety to bring the organization to a state of acceptable space. Within today's litigious environment, corporations and their leadership can no longer claim “we didn't know” as an excuse for corporate resilience failures. Business resilience is now an established need within corporations and should be an embedded institutional capability and defining ethos within the day-to-day business operations of a company (Stephenson, 2012).

Over the past decade, a great deal has been written about Knowledge acquisition and the role it plays in successful resilience of organizations (Durodie, 2003; Dalziell & McManus, 2004, Mitroff, 2005; Ichijo and Nonaka, 2006; Parsons, 2007). Despite this growth of scholarly publications on the influence of Knowledge acquisition on organizational resilience, little empirical evidence exists in developing countries, especially Nigeria. To bridge this gap in literature, this study examines the relationship between Knowledge acquisition and Organizational Resilience of selected manufacturing companies in Nigeria. By exploring the relationship

between Knowledge acquisition and Organizational Resilience, organizations can enhance their competitive advantage and effectiveness.

2. Literature Review

In this era of globalization, one important factor that differentiates successful firms from unsuccessful ones is their vision of the future and their practical ability to act to realize that future by using their aesthetic sensibilities to create knowledge.” Currently, we live in a knowledge intensive era where knowledge plays a key role to resilience and thus organizations need to consider how they manage knowledge within their organization. Although knowledge has always existed in all type of organizations, societies and individuals. However, in the past knowledge was treated like something trivial, something that always existed and taken for granted (Zack 1999). Today knowledge is seen as one of the most important strategic resources with the ability of creating and maintaining a competitive advantage (Zack, 1999). The concept called knowledge-based view is a view in which a company uses knowledge to gain advantage over its competitors by knowing more about its customers, products, technologies, markets and environment. The knowledge-based view is a management concept and is achieved by increasing the organizations employees’ involvement on different levels when striving to reach the operational goals (Encyclopedia.com 2009). Besides, effective knowledge management for resilience can be very meaningful.

As Christensen and Raynor, (2003) bluntly stated that “Resources are usually people or things – they can be hired and fired, bought and sold, depreciated and built”. “The only irreplaceable capital an organization possesses is the knowledge and ability of its people. The productivity of that capital depends on how effectively people share their competence with those who can use it.” Andrew Carnegie (IKM-Corporation 1999-2003). Despite the growing interest in knowledge management and the initiatives many organizations have taken to manage knowledge, few companies have succeeded in creating a knowledge-based competence to gain and establish resilience. The search for knowledge has always been a focal point in the evolution of mankind. As the earliest civilizations appeared in Mesopotamia, Egypt, India and China, they were heavily influenced by their environment, diminishing the impact of the environment on their civilization. Through the centuries, humans have acquired and constructed new knowledge that permitted them to understand and adjust to the world they inhabited, as well as transforming it to suit their needs. Knowledge has helped humans to become the “subject” of change, as opposed to being the “object” of change.

2.1. Knowledge Acquisition

Knowledge management deals equally with the acquisition, handling and use of explicit knowledge as well as the management of tacit knowledge in terms of improving people’s capacity to communicate and collaborate with one another (Al-Hawamdeh, 2002). Knowledge management is a capability pertaining to knowledge creation, knowledge organization, storage and retrieval, knowledge transfer, and knowledge applications which enhances a firm’s ability to gain and sustain a competitive advantage (Carlsson, 2008). Knowledge acquisition means the development or creation of skills, insights and relationships. Nonaka and Takeuchi (1995) proposed knowledge creation process which is made up of sharing tacit knowledge, creating concepts, justifying concepts, building archetype and cross leveling knowledge. **Knowledge generation** includes all activities which bring to light knowledge which is new, whether to the individual, to the group, or to the world. **Knowledge codification** is the capture and representation of knowledge so that it can be re-used either by an individual or by an organization. **Knowledge transfer** involves the movement of knowledge from one location to another and its subsequent absorption. Creation and manifestation is related to how it is created and manifested in people’s minds as well as procedures, culture and even technology.

2.2. Organizational Resilience

Bell (2002) defines organizational resilience as “the capability to respond rapidly to unforeseen changes, even chaotic disruption. It is the ability to bounce back- and, in fact bounce forward- with speed, grace, determination and precision.” For an organization to be able to continue and even increase turnover in the midst of crises is resilience. Organizational resilience is a continuously moving target which contributes to performance during business-as-usual and crisis situations (Mitroff, 2005). It requires organizations to adapt and to be highly reliable (Weick & Sutcliffe, 2007), and enables them to manage disruptive challenges (Durodie, 2003). Flin, Mearns, and Bryden, (2000) argue that leading indicators, “may reduce the need to wait for the system to fail in order to identify weaknesses and to take remedial actions”. In the context of resilience,

this is very important because leading indicators can provide organizations with information on their resilience strengths and weaknesses before a crisis happens.

In a competitive environment, an organization that is aware of its resilience strengths is also more equipped to find opportunities out of a crisis situation (Knight & Pretty, 1997). McManus, Seville, Vargo and Brunson (2008) argued that the resilience of organizations directly contributes to the speed and success of community recovery following a crisis or disaster, Buckle (2006) reflects this when he discusses organizations as a level of social resilience. McManus, Seville, Vargo and Brunson (2008) went on to discuss communities' expectations of organizations and argue, "Consumers and communities are increasingly demanding that organizations exhibit high reliability in the face of adversity and that decision makers are able to address not only the crises that they know will happen, but also those that they cannot foresee". As stated by Bell, (2002) "It is not just the terrorist acts of September, 11, but a decade of unprecedented change, wrenching economic instability and business discontinuities that demand organizational agility and organizational resilience. In many respects, resilience represents the next phase in the evolution of traditional place-centric enterprise structures to highly virtualized, people-centric structures that enable people to work anytime, anywhere."

Fortunately, we are currently in the midst of great change, a condition which Thurow (2003) called the third industrial revolution. It is a shift towards a knowledge-based economy, where knowledge is the most important resource, superseding the traditional management resources of land, capital, and labour (Drucker, 1993). This has stimulated more active discussion about the theory and practice of "knowledge management." Yet most manufacturing organizations still have serious difficulty understanding the knowledge resource, and they still lack an effective theoretical framework for understanding the operations of the manufacturing industries in the knowledge-based economy.

2.3. Organizational Adaptability

More recently, adaptability has also come to be considered an important response option worthy of research and assessment, not simply in order to guide the selection of the best mitigation policies, but rather to reduce the vulnerability of groups of people to the impacts of change, and hence minimize the costs associated with the inevitable (Kane and Shogren, 2000; Smit and Pilifosova, 2001). This has, in part, stemmed from a realization that a certain amount of change will occur, and that society can take concrete steps to minimize the net losses (including taking advantage of opportunities for gains).

Social scientists' contribution to the study and assessment of adaptation has crossed several disciplines, and drawn off of a long tradition of studying vulnerability to natural hazards and to food insecurity (Dilley and Boudreau, 2001). Geographers and anthropologists have identified many ways in which traditional practices allow for greater adaptive capacity, and how a disruption of social cohesion reduces people's adaptive capacity, making them less resilient to environmental stress (Adger, 2000). At the same time as traditional practices and power structures may increase a society's adaptive capacity, they may stand in the way of people making more permanent adjustments in response to the occurrence, or threat, of longer-term environmental change (Adger, 2000). Specialists in particular areas of adaptation (e.g., agriculture, or coastal zone management) have identified particular policies, such as enhanced communication of information or the development of insurance networks that can assist adaptation (Freeman and Kunreuther, 2002).

Adaptability is the degree to which an organization has the ability to alter behaviour, structures; and systems in order to survive in the wake of the environmental change (Denison, 2007). Adaptability entails translating the demands of business environment into action. Organizations as open systems exist in environment that is complex and uncertain. To survive and make profit, organizations need to adapt continuously to the different levels of environmental uncertainty (Amah and Baridam, 2012). Environmental uncertainty represents an important contingency for organization structure and internal behaviours (Daft, 1998). Organizations need to have the right fit between internal structure and the external environment.

2.4. Organizational Resourcefulness

Resourcefulness is the use of any type of resource or series of resources that can be activated by organizational structures, processes, systems and cultures to give an organization competitive advantage or enable it survive a difficult environmental situation. Gainz (2000) stated that organizational resourcefulness can compensate for lack of resources. Large global organizations in intensely competitive industries compete on the basis of their innovation capacity. They work at creating and sustaining the capabilities that feed that capacity and become extremely good at it. Being resourceful also means coming up with solutions to issues and problems that minimize setbacks (HighAR, 2012). Resourcefulness applies to both threats and opportunities. Sometimes the most useful strategy may be counterintuitive—rather than hoarding resources for a safety cushion, perhaps the resilient response is to use a resource constraint as a catalyst to develop an innovation capability.

2.5. Organizational Learning

The concepts of organizational learning and learning organization did not emerge until the 1980s, but their scientific background and principles can be traced back into many perspectives of management (Garratt, 1999). The idea of organizational learning is accredited to the creation of the 'action learning' process (Revans, 1982), which uses small groups, rigorous collection of statistical data, and the tapping of the group's positive emotional energies (Garratt, 1999). This technique is also reflected in Deming and Juran's quality control system using quality circles, SPC (statistical process control) and PDSA (plan-do-study-action). A few works contributed positively to open up the debate of organizational learning and subsequently the popularity of the concept. These include Argyris and Schon's (1978) double-loop learning notion, Senge's (1990) the 'Fifth Discipline' and Pedler, Burgoyne & Boydell (1991) learning company model. Today, the concept of organizational learning and learning organization has flourished and been defined in a wide range of literature (Levitt & March, 1988; Senge, 1990; Cohen & Sproul, 1991; Argyris & Schon, 1996). However, the definitions bear some concurrent criticism. First, the concept of organizational learning and learning organization is "excessively broad, encompassing merely all organizational change ... and from various other maladies that arise from insufficient agreement among those working in the area on its key concepts and problems" (Cohen & Sproul, 1991). Similar criticism has been raised by many other researchers such as Daft and Huber (1987), Dodgson (1993), Garvin (1993), and Miller (1996). Secondly, most of the definitions appear to be complementary rather than fundamentally original or conceptually different (Matlay, 1997). This provides overwhelming, but unclear, information to both researchers and practitioners. Finally, the prevailing concept of organizational learning and learning organization bear a strong bias towards the traditional scientific approach to management, and stress the importance of systems thinking and continuous improvement. A few researchers have identified the limitations of the existing framework in current industrial contexts (Kim & Mauborgne, 1999; Wang & Ahmed, 2001). Therefore, there is a need to review the existing literature of the concept of organizational learning to explicate understanding of the organizational learning concept and practices and essentially upgrade the concept to conform to the requirements of current industrial developments.

An organization must learn so that it can adapt to changing environment (Lee, 1999). Given the ever-accelerating rate of global scale change, the more critical learning and adaptation has become relevant to organization success and ultimate survival. Managers must encourage their employees to share and develop their knowledge bases with each other to improve performance. Personal relationships are very important for the meaning full internal transfer of information that will enable the organization to adapt to changes in the environment. Davis and Nutley (2000) gave two reasons why organizations seek enhanced learning. First, because of the desire to maintain flexibility and competence in the face of rapid change and profound uncertainty, in their environment. Second, because of the need to improve their capacity to innovate and compete. From the foregoing the following hypotheses were derived.

Ho₁: There is no significant relationship between knowledge acquisition and organizational adaptability.

Ho₂: There is no significant relationship between knowledge acquisition and organizational resourcefulness.

Ho₃: There is no significant relationship between knowledge acquisition and organizational learning.

3. Research Methodology

This correlational study was conducted as a cross-sectional survey. The study units for data generation were employees in the manufacturing companies registered with the manufacturing association of Nigeria Rivers State council. The micro-level of analysis was adopted. a sample size of 124 employees was determined using cluster sampling.. Cluster sampling is ideal since the target population is heterogeneous. The independent variable in this study is knowledge acquisition. On the other hand, the dependent variable in this study is organizational resilience and it has three measures: Organizational adaptation, Organizational resourcefulness and Organizational learning. Knowledge acquisition is operationalised using Dewah, (2012) KM questionnaire. On the other hand, three different instruments were utilized in operationalising organizational resilience. The Resilience Scale was used to measure adaptation of the organization; the measures for resourcefulness were based on the earlier study of Valikangas, (2009); while the measures for organizational learning was based on the earlier study of Watkins & Marsiek (2002). The response mode followed a five-point Likert type scale with 5= 'agree strongly', 4= 'agree slightly', 3= 'neither agree nor disagree', 2= 'disagree slightly' and 1= 'disagree strongly'.

Data for this study was analysed using the Spearman's Rank Correlation Coefficient. The test measures the relationship between two sets of ranked observations and degree of relatedness among ordinal variables when ranked respectively. The value of the Spearman's correlation lies between -1 & +1, the sign indicates the direction of association between the independent variable and the dependent variable. The Spearman correlation

is positive if the dependent variable increase when the independent variable increases; and it's negative if the dependent variable decreases when the independent increases. a spearman correlation of zero shows no association between the variables (wikipedia, 2012).on the other hand, multivariate analysis was utilized in testing the moderating effect of technology on the relationship between the dependent and independent variables.

4. Research Results

4.1. Correlation Between Variables

Spearman Rank Correlation is used to show the correlation between the predictor and criterion variables as depicted in Table 1.

Tab 4.1 Correlation between Knowledge Acquisition and Organizational Resilience

			Correlations			
			Knowledge Acquisition	Org Adaptation	Org Resourcefulness	Org Learning
Spearman's rho	Knowledge Acquisition	Correlation Coefficient	1.000	.994**	.267**	.952**
		Sig. (2-tailed)	.	.000	.002	.000
		N	128	128	128	128
	Org Adaptation	Correlation Coefficient	.994**	1.000	.263**	.947**
		Sig. (2-tailed)	.000	.	.003	.000
		N	128	128	128	128
	Org Resourcefulness	Correlation Coefficient	.267**	.263**	1.000	.315**
		Sig. (2-tailed)	.002	.003	.	.000
		N	128	128	128	128
	Org Learning	Correlation Coefficient	.952**	.947**	.315**	1.000
		Sig. (2-tailed)	.000	.000	.000	.
		N	128	128	128	128

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

Tab 1 show significant positive relationship between knowledge acquisition and organizational adaptation (.994); significant positive relationship between knowledge acquisition and organizational resourcefulness (.267) and significant positive relationship knowledge acquisition and organizational learning (.952). Hence, the null hypotheses 1, 2 and 3 are rejected.

5. Discussion of Findings, Conclusion and Recommendation

5.1. The Relationship between Knowledge Acquisition and Organizational Resilience

The findings of this study revealed a positive and significant relationship between knowledge acquisition and organizational adaptation (Rho=0.994, p<0.01). Similarly, a positive and significant relationship was revealed between knowledge Acquisition and Organizational learning (Rho=0.952, p<0.01). The finding of this study also revealed a significant positive relationship between knowledge acquisition and organizational resourcefulness (Rho=0.267, p<0.01). Based on the above it was concluded that knowledge acquisition enhances organizational adaptation, organizational learning, and organizational resourcefulness within manufacturing organizations in Nigeria. These findings may be explained by the fact that most of the manufacturing organizations engaged in continuous acquisition of relevant knowledge. They consider the ideas, experience and skills of workers; they scanned their environment to know if there are changes and bring the change to their organizations; they develop the capacity of worker periodically by sending them for trainings, seminars and workshops; and they also draft in experts from other organizations.

The findings revealed that most organizations today exhibit a high level of knowledge management in terms of knowledge acquisition. These findings confirm the researchers' observation while interacting with some of the top, middle and lower management staff of the organization. The responses during oral interactions show that they practice high level of knowledge acquisition. As a result, these practices have made the organizations resilient. This is seen in their organizational adaptation, organizational resourcefulness and organizational learning. Thus, these research findings show that the problem of lack of organizational resilience does not emanate from the province of lack knowledge acquisition as it concerns the manufacturing companies in Rivers State.

From the discussion above, it is evident that knowledge acquisition is a practice which can help organizations achieve resilience. It can also help enterprise managers and organizations to develop new opportunities, create value, gain competitive advantages and improve performance to attain the organizations objectives and emerging needs (Anand, 2011). Most of the manufacturing organizations have adaptive capacities; they are not rigid and slow to adopt new ideas; they are agile and able to adapt to any and all crises; they recover quickly after shock; they are on the leading edge of innovation. This could be the reason why these companies have survived when most of their competitors are gone. Most of the manufacturing organizations are resourceful; resources are used to their maximum capacity and beyond; they turn threats and weaknesses into opportunities and strengths; they support creativity; innovation and entrepreneurship; they have alternative to most components. Organizational learning is done in most of the manufacturing companies; people in the organizations identify skills they need for future work tasks; people can get funds and other resources to support their learning and are rewarded if they learn; people view problems in their work as an opportunity to learn; people give open and honest feedback to each other.

Based on the findings and conclusion above, the following recommendations are made: firstly, Nigerian manufacturing organizations should continue to strengthen their knowledge acquisition skills in their everyday activities as this is a sure guarantee for their resilience. Secondly, the culture of resilience should be instilled in people at all levels of the organization. Thirdly, Nigerian manufacturing organizations should continue to invite experts to train their employees so that they will learn from internationally recognized best practices.

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