

# EMPLOYEE CREATIVITY AND ORGANIZATIONAL RESILIENCE IN MANUFACTURING ORGANIZATIONS IN RIVERS STATE

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**Abstract:** This study investigated employee creativity and organizational resilience in manufacturing organizations in Rivers State; it involved the adoption of two dimensions of employee creativity and three measures of organizational resilience which guided the researcher in developing six research hypotheses. Based on the hypotheses, the various dimensions and measures as well as their relationship were discussed in the review of literature section of the study. One hundred and twelve (112) copies of the research questionnaire were distributed to respondents based on the sample size determined by the Taro Yamen's formula, however, only ninety (90) copies were used in our analysis representing a response rate of 80.4%. The analysis was carried out using the Pearson's Product Movement Correlation coefficient statistical tool with the aid of statistical package for social scientists (SPSS) version 22.0 and the result revealed a significant relationship between the dimensions of employee creativity and the measures of organizational resilience used in this study. Based on the findings, the study recommended thus; 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's resilience.

**Keywords:** Employee Creativity, Organizational Resilience, Cognitive Abilities, Employee Knowledge, Organizational Learning, Adaptive Capacity, Dynamic Capabilities.

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## 1. INTRODUCTION

Creativity ultimately represents an important ingredient for organizational success. Given their need to thrive within a rapidly changing global economy, many organizations are aware of the important role which creativity plays in the process of innovation which in turn helps to ensure positive organizational resilience. As Westwood and Low (2003) put it, due to the rapidly changing marketplace, companies must innovate, not just to grow but also to survive. Thus creativity is construed as part of the innovation process. Innovations are the practical application of creative ideas, and an organization cannot innovate unless it has the capacity to generate creative ideas. In consequence, creativity becomes important not only for individual and organizational performance and resilience, but also for economic success and social development at a societal and global level (Hamel & Prahalad, 2004).

Employee creativity contributes significantly to organizational innovation, effectiveness, resilient and survival (Nonaka, 1991; Amabile, 1996). Thus, having employees that are creative in their work is an important condition for firms that are determined to build a solid foundation for organizational creativity and innovation and consequent sound resilience. According to Shalley and Gilson (2004) the benefits of having creative employees extend beyond the creative ideas that these employees are able to generate to the enhancement of creativity potential of other employees in the firm as well. The ideas generated by creative employees increase the likelihood that other employees will apply the ideas in their own work,

further develop the ideas and then transfer them to other individuals in the organization for their own use and development, such acts are capable of making organizations more resilient to their dynamic and highly competitive business environment (Accra Jaja & Amah, 2014).

The conceptualization of creativity in organizations can be traced to various person-context theories of creativity that explain creativity as a function of employees' personal characteristics, the characteristics of the context in which they work, and the interactions among these characteristics (Plessis, 2007). Previous research has examined the effect of individual characteristics such as personality, cognitive styles, creativity relevant skills, experience and motivation (e.g. Amabile & Mueller, 2000; Woodman, Sawyer & Griffin, 1993; Scott & Bruce, 1994; Oldham & Cummings, 1997; Mumford, Zaccaro, Harding, Fleishman & Reiter-Palmon, 1997; Reiter-Palmon et al., 1997; Shalley & Oldham, 1997; Tierney, Farmer & Graen, 1999; Vincent, Decker & Mumford, 2002).

In the Western world creativity is conceived of as a pragmatic tool to help people in solving problems and implementing solutions (Kanter, 2008). According to this view a creative employee is, as described by Krippner and Murphy (1973), predatory, in the sense that he grasps the insight for a specific purpose. A process-oriented rather than a product-oriented creative person would use insight-producing states to obtain enlightenment (Sarasvathy, 2001).

Crant (2010) argues that whereas personality, cognitive styles, motivation and skills are all important in explaining employee creativity, there are other individual-related factors that may also affect creativity. One example in this sense is the cultural values held by different individuals. By determining patterns of behavior and attitudes towards creativity, cultural values have the potential to affect people's creativity (Kasof, Chen, Himsel & Greenberger, 2007). As Rank, Pace and Frese (2004) indicate, cultural values most likely influences the manner in which creativity and innovation are enacted and cultivated. In organizational settings, some empirical research suggests that there is a link between creativity and employees' individual values (e.g. Miron, Erez & Naveh, 2004). However there is only but a few works that projects the perceived influence of employee creativity on organizational resilience, this as such presents a gap in literature which needs to be filled. It is against this backdrop that the researcher intends to study the effect of employee creativity on organizational resilience in manufacturing organizations in Rivers State, Nigeria.

The general objective of this study is to examine the effect of employee creativity on organizational resilience in manufacturing organizations in Rivers State, Nigeria. Specifically, the objectives of this study include:

1. To examine the effect of employee cognitive abilities on organizational learning in manufacturing organizations in Rivers State.
2. To examine the effect of employee cognitive abilities on adaptive capacity in manufacturing organizations in Rivers State.
3. To examine the effect of employee cognitive abilities on dynamic capabilities in manufacturing organizations in Rivers State.
4. To examine the effect of employee knowledge on organizational learning in manufacturing organizations in Rivers State.
5. To examine the effect of employee knowledge on the adaptive capacity in manufacturing organizations in Rivers State.
6. To examine the effect of employee knowledge on dynamic capabilities in manufacturing organizations in Rivers State.

#### **Significance of the Study:**

This study draws its significance mainly from the context within which it will be accomplished. The empirical deductions and contributions would be of both practical and theoretical use.

- (i) **Practical Significance:** Practically, this research will draw its significance from the empirical attributes of its enquiry, and as such making the outcome and subsequent recommendations practicable and applicable within the study organizations.
- (ii) **Theoretical Significance:** From the theoretical perspective, this study is expected to add to the existing body of knowledge in the area of employee creativity and organizational resilience. The findings of this research will pave way for further in-depth studies in this area of study. This will as such provide a basis for the adoption of assumed theoretical model and empirical methods. The outcome of this study will equally spur up further studies in this area of research interest.

## **2. REVIEW OF RELATED LITERATURE**

### **Concept and Dimensions of Employee Creativity:**

A defining characteristic of creativity research is its lack of consensus regarding what creativity is. There are numerous number of theoretical approaches developed to explain the general concept of creativity (Sternberg & Lubart, 1996; Sternberg, 2012; Weisberg, 2006; Kozbelt, Beghetto & Runco, 2010). Given such abundance of theoretical approaches there are also multiple definitions of creativity.

Guilford (1977) defines creativity as the art of setting problems and finding proper solutions to them. Runco and Jaeger (2012) considers creativity as the ability of thinking out of scheme, reaching new and functional conclusions, suited to solve a problem or to catch an opportunity. Undoubtedly, the multitude of definitions available is due to the remarkable pluralism which characterizes the field of research in creativity whereby a multitude of theoretical perspectives, with different assumptions and methods, and operating at different levels of analysis, all ideally contribute to a more robust, contestable–understanding of human creativity (Kozbelt, Beghetto & Runco, 2010).

Creativity theories and their corresponding definitions can be categorized according to the aspect of creativity they emphasize (Kozbelt, Beghetto & Runco, 2010; Runco & Jaeger, 2012). As explained in Kozbelt et al. (2010) these aspects refer to process, product, person and place creativities. Within the stream of research on employee creativity in the workplace, Sternberg and Lubart (1999) states that employee creativity is “the production of ideas by an employee that are both novel and useful”.

Amabile (1996) offers a more elaborate version of the above definition stating that “product or response will be judged as creative to the extent that (a) it is novel and appropriate, useful, correct or valuable response to the task at hand, and (b) the task is heuristic rather than algorithmic”.

Moreno and Mayer (1999) opines that the overarching definition of employee creativity seems to favor the idea that employee creativity involves the creation of new and useful products, including ideas and concrete objects. According to these definitions it follows that: creative people are those who create new and useful products, and creative cognitive processes occur whenever a new and useful product is created by a creative person.

Feldman (1999) indicates that at least the following dimensions should be captured within the concept of employee creativity if we are to conceptualize employee creativity as multidimensional: (1) Cognitive processes; (2) Social/emotional processes; (3) Family aspects: growing up and current; (4) Education and preparation: formal and informal; (5) Characteristics of the domain and field; (6) Social/cultural contextual aspects; (7) Historical forces, events, trends. Feldman (1999) further points out that an adequate analysis of employee creativity involves (at least) these seven dimensions or aspects. The dimensions of employee creativity include cognitive abilities and employee knowledge adopted from the work of Woodman, Sawyer & Griffin (1993).

### **Cognitive Abilities:**

Within the context of this study, cognitive ability is viewed as a psychological resource that is available to individuals in varying degrees. Cognitive ability involves the ability to learn, to acquire stores of knowledge and make skilled decisions based on that knowledge (Embretson & Schmidt Mccollam, 2000). In addition, it involves problem-solving in novel situations where previously acquired knowledge is not necessarily available (Deary, 2001). Furthermore, inductive and deductive reasoning and mental manipulation of information are also required (Deary, 2001).

Cognitive ability also can be regarded as one’s ability to adapt to the environment. Adaptability includes a number of subcomponents such as learning from experience, problem-solving when faced with novel situations, and controlling one’s internal and external environments by molding them when necessary (Kanter et al, 2006). It involves capitalizing on strengths whilst at the same time compensating for weaknesses (Sternberg, 2009).

Viswesvaran and Ones (2002) states that industrial and organizational psychologists are divided on the issue of the importance of general mental ability in aspects of work such as personnel selection and job performance. On the one hand are those who argue that cognitive abilities are not good enough predictors (Goldstein, Zedeck & Goldstein, 2002; Sternberg & Hedlund, 2002). On the other are those who point to research supporting its utility in predicting outcomes (Moreno & Mayer, 1999).

Dilchert, Ones, Davis and Rostow (2007) observed a substantial negative relationship between cognitive ability and counterproductive work behaviours such as work avoidance, abuse of resources, absenteeism and destruction of property. In a similar study, Ree, Carretta and Teachout (1995) determined that general ability influenced work performance to a greater extent than did prior job knowledge. Hunter and Schmidt (1996) reported studies indicating general cognitive ability to be the best predictor for job performance when hiring personnel.

### **Knowledge:**

Employee Knowledge tasks are usually dominated by intellectual demands, technical know-how, creativity, interaction, mobilization, networking, and innovation (Noon & Blyton, 2007). For Winslow and Bramer (1994), knowledge work is associated with creating solutions for problems within organizations, through interpreting and applying information, and thus support and recommend them to the firm's management.

Depres and Hiltrop (1995) highlighted the tasks as information manipulation and knowledge production which will eventually lead to new processes, devices, products or applications. On the other hand, Heerwagen, Kampschroer, Powell & Loftness (2004) identified employee knowledge tasks as "planning, analyzing, interpreting, developing, and creating products and services using information, data or ideas as the raw material".

Reich (1993) claimed that the value adding activity of the employee knowledge work is symbolic and not materialistic. According to him, it is "principles, psychological insights about how to persuade or to amuse, systems of induction or deduction, or any other set of techniques for doing conceptual puzzles". Ackroyd and Batt et al. (2005) indicated that 'symbolic analytic' workers have special skills identified in three aspects: problem solving; such as research, product design and fabrication; problem identification, such as marketing, advertising, and customer consulting; and brokerage, such as financing, searching and contracting.

Inalhan (2009) observed that knowledgeable workers are incapable of attaining all the knowledge they need to accomplish tasks. They should be supported by processes, workflows, identified tasks, learning systems and accessible; updated; and contextualized information and knowledge management systems. It could be realized that labeling employees as knowledgeable workers doesn't indicate the fact that all their tasks are knowledge work. Their tasks may include non-knowledge work; however, they are mostly dominated by knowledge assignments (Hua, Loftness, Kraut & Powell, 2010).

### **Concept and Measures of Organizational Resilience:**

Bernard (2004) commented that, "the preponderance of resilience-related research identifies resilience as a universal, developmental capacity of every human being". Individuals have an inborn capacity to develop resilience that transcends race, culture, gender, time, or geographic location.

Madni (2007) defines resilience as the ability to anticipate a perturbation, to resist by adapting and to recover by restoring the pre-perturbation state as much as possible. McManus, Seville, Vargo and Brundsdon (2008) asserts that the numerous concepts that emerge from definitions of organizational resilience include knowledge of the environment, level of preparation, anticipation of perturbations, adaptation, capacity to recover, etc. The ability of organizations to absorb shock or develop resistance in the face of perturbances within its environment is a reflection of how prepared the organization can be.

Alastir (2010) contends that managers of resilient organizations should understand at board level, the environment in which their organizations operates, and be aware of changes which may represent a risk to their people, facilities, activities, services and supply chains. He maintains that managers need to understand the increasing complex cultural, political, legal, regulatory, economic, technological, natural and competitive context within which they operate and monitor key issues and trends that may impact on the objectives of the organization and the perceptions and values of external stakeholders.

Erica (2006) asserts that the economic implication of organizations being unprepared for crisis are significant. The importance of organizations being resilience would be well appreciated if we conceptualize a decline in talented skills in certain workforces due to some unanticipated disaster or crisis or loss of principal executives either as a result of death or being incapacitated to perform their duties.

Amah and Daminabo-Weje (2004) argues that successful organizations are those who understood the dynamic nature of their environment (Competitors, technology, the availability and cost of finance, taxation, government policy and their customer needs and expectations). In this regard, they contend that a successful organization should evolve like a resilient eco-system constantly adopting to reflect the changing external environments.

Smith (2002) describes organizational resilience in the context of being concerned with crisis prevention. According to Smith, there are two wide areas of crisis prevention. The first is concerned with the development of a crisis preparation culture; the second area is concerned with the ethical aspects of corporate behaviour and the creation of resilience as a consequence of suspect ethical behaviour. According to Hess and Rothaermel (2008), a resilient organization “is able to create structure; dissolve it; provide safety in the midst of change; manage the emotional consequences of continuous transformation and change (anxiety and grief); and learn, develop, and grow”.

The measures of Organizational resilience include Organizational Learning, Adaptive capacity and Dynamic Capability, adopted from the work of Accra Jaja and Amah (2014).

### **Organizational Learning:**

Organizational learning requires systematic integration and collective interpretation of new knowledge that leads to collective action and involves risk taking as experimentation (Accra Jaja & Amah, 2014). Organizational Learning is an area of knowledge within organizational theory that studies models and theories about the way an organization learns and adapts. Learning is acquiring new, or modifying existing knowledge, behaviors, skill, values, or preferences and may involve synthesizing different types of information (Accra Jaja & Amah, 2014).

Aggestam (2006) posits that a learning Organization has a culture that supports learning and innovations both by individuals and by the organization. The environment promotes a culture of learning, a community of learners, and it ensures that individual learning enriches and enhances the organization as a whole. Aggestam (2006) maintains that a learning organization is organized in such a way that it scans for information in its environment, creates information by itself, and encourages individuals to transfer knowledge between the individuals in team. This must be guided by the structure and by the vision that is guided by the strategic leadership of the organization.

Accra Jaja and Amah (2014) posits that learning is when changes in knowledge happen inside an individual and learning and accumulation of (new) knowledge always starts with the individual. Individual learning does not necessarily imply changes in organizational knowledge. Organizational knowledge is knowledge independent of specific members in the organization. Organizational Learning (OL) is considered to depend on the collective cognitive processes of individuals. Individuals can be regarded as subsystems in the organization. The concept of learning organization regards the organization as an entity and focuses on those characteristics that encourage its members to learn. Organizational learning, on the other hand, focuses on how learning is developed in an organization (Accra Jaja & Amah, 2014).

### **Adaptive Capacity:**

In socio-ecological context, Walker, Carpenter, Anderies, Abel, Cumming, Janssen, Lebel, Norberg, Peterson and Pritchard (2002) 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.

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 (Accra Jaja & Amah, 2014). Amah and Baridam (2012) discuss the importance of adaptation and noted that the aim is to create advantages over less adaptive competitors.

Dalziell and McManus (2004) define adaptive capacity as the engagement and involvement of organizational staff so that they are responsible, accountable and occupied with developing the organization’s resilience through their work because they understand the links between the organization’s resilience and its long term success. They also define adaptive capacity as relating to strong leadership and a culture which enables clear communication, good working relationships, and a shared vision across the organization. The organization is innovative and creative and people are able to constantly and continuously act to match or exceed the needs of the organization’s operating environment in anticipation of, or in response to change (Accra Jaja & Amah, 2014).

Dalziell and McManus (2004) further demonstrated the difference between adaptive capacity and vulnerability, which they argue are often used interchangeably because of the inclusion of adaptation in definitions of vulnerability. Vulnerability is defined by Dalzille and McManus (2004) as the amount of deviation from the organization’s original state to the point at which it experiences significant change or impacts as a result of the disaster. Adaptive capacity then, is the envelope or space in which the organization’s performance or management of the disaster fluctuates until it reaches an equilibrium (Accra Jaja & Amah, 2014).

**Dynamic Capabilities:**

Tece, Pisano and Shuen (2010) in Accra Jaja and Amah (2014) defined Dynamic capabilities as “the firm’s ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments”. Dynamic capabilities can be distinguished from operational capabilities which pattern to the current operations of an organization. Dynamic capabilities, by contrast, refer to “the capacity of an organization to purposely create, extend, or modify its resource base” (Helfat et al, 2007) cited in Teece, et al., (2010). The basic assumption of the dynamic capability framework is that core competencies should be used to modify short-term competitive positions that can be used to build longer-term competitive advantage (Accra Jaja & Amah, 2014).

Dynamic capabilities thus provide a bridge between the economic-based strategy literature and evolutionary approaches to organization. Accra Jaja and Amah (2014) opines that three dynamic capabilities are necessary in other to meet new challenges. Organizations and their employees need the capability to learn quickly and to build strategic assets. New assets such as capability, technology and customer feedback have to be integrated within the company (Accra Jaja & Amah, 2014).

Teece, et al. (2010) concept of dynamic capabilities essentially says that what matters for business is corporate agility; “the capacity (1) to sense and shape opportunities for threat, (2) to seize opportunities, (3) to maintain competitiveness through enhancing, combining, protecting, and when necessary, reconfiguring the business enterprise’s intangible and tangible assets”.

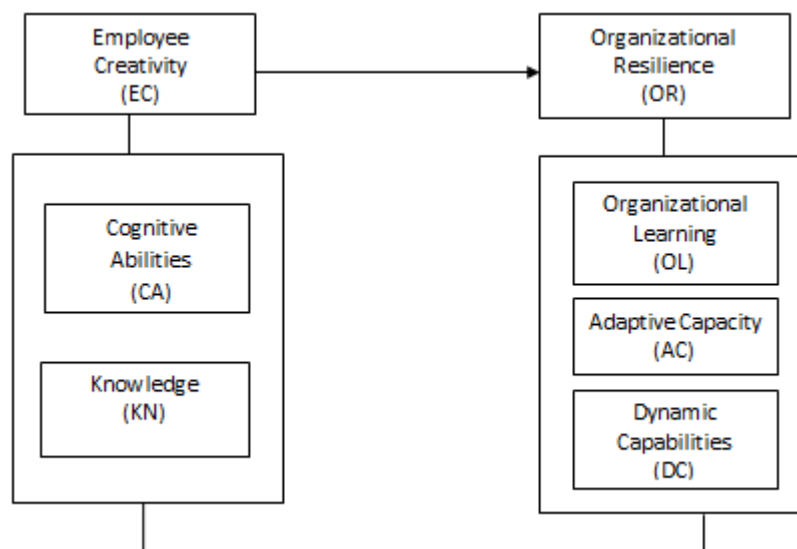
**Relationship between Employee Creativity and Organizational Resilience:**

Reasonable effort has been made in an attempt to explain firm’s resilience and industry change (Klepper & Thompson 2006). Employee creativity 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 creativity process. Many studies particularly did not account for the fact that while some act of creativity succeeds a good number of them failed. Creativity in essence increases the likelihood of exceptional performance as well as death of an organization (Amabile & Mueller, 2008).

The major line of argument or approach adopted in most work of firm’s resilience is the argument that employee creativity is the essence or the main reason for firm’s survival because in most cases only those firms that can successfully innovate through positive employee engagement and creativity are able to build and sustain a competitive advantage in the market (Kendra & Wachtendorf, 2003).

The conceptual framework on employee creativity dimensions adopted from Woodman et al, (1993) and the measures of organizational resilience adopted from Accra Jaja and Amah, (2014) is presented below.

**Conceptual Framework**



**Figure 1: Conceptual framework on employee creativity and organizational resilience in manufacturing organizations in Rivers State.**

Source: Researcher’s Concept, 2018.

**Research Hypotheses:**

**Ho<sub>1</sub>:** There is no significant relationship between employee cognitive abilities and organizational learning in manufacturing organizations in Rivers State.

**Ho<sub>2</sub>:** There is no significant relationship between employee cognitive abilities and adaptive capacity in manufacturing organizations in Rivers State.

**Ho<sub>3</sub>:** There is no significant relationship between employee cognitive abilities and dynamic capabilities in manufacturing organizations in Rivers State.

**Ho<sub>4</sub>:** There is no significant relationship between employee knowledge and organizational learning in manufacturing organizations in Rivers State.

**Ho<sub>5</sub>:** There is no significant relationship between employee knowledge and adaptive capacity in manufacturing organizations in Rivers State.

**Ho<sub>6</sub>:** There is no significant relationship between employee knowledge and dynamic capabilities in manufacturing organizations in Rivers State.

**3. RESEARCH METHODOLOGY**

**Research Design:**

A research design has been described as a program, which guides the researcher in the process of collecting, analyzing and interpreting observation (Baridam, 2001). It also connotes the structuring of investigation aimed at identifying variables and their relationships to one another (Creswell, 2003). Therefore, this study adopted a quasi-experimental design because there are both dependent and independent variables used in the model. The dependent variable is considerably influenced by the independent variables which make Quasi-experimental research design appropriate for the study. Further, primary data was used to carry out the analysis. Therefore, the research design for this work involves the following steps:

- (i) Data collation from a cross section of determinate members of the management level staff of manufacturing firms in Rivers State.
- (ii) The analysis of data collected using the SPSS Version 22.0

**Model Specification:**

The analysis involved the use of the Pearson’s Product Moment Correlation Coefficient statistical tool. This was used to determine the perceived relationship between the independent and dependent variables.

Model, which is the simplification of complex reality, specifies the relationship between the variables used in the analysis. Therefore, the models specify that organizational resilience [measured by cognitive abilities and employee knowledge] is significantly influenced by employee creativity (proxied by organizational learning, adaptive capacity and dynamic capabilities). The models, which are expressed in their natural forms, are formulated as follows,

**Model I**

OL= f (CA)  
 $OL = \alpha_0 + \alpha_1 CA + U_i$  - - - - - equ(1)

**Model II**

OL= f (KN)  
 $OL = \alpha_0 + \alpha_1 KN + U_i$  - - - - - equ(2)

**Model III**

AC= f (CA)  
 $AC = \alpha_0 - \alpha_1 CA + U_i$  - - - - - equ(3)

**Model IV**

AC= f (KN)  
 $AC = \alpha_0 + \alpha_1 KN + U_i$  - - - - - equ(4)

**Model V**

$$DC = f(CA)$$

$$DC = \alpha_0 - \alpha_1 CA + U_i \quad \text{equ(5)}$$

**Model VI**

$$DC = f(KN)$$

$$DC = \alpha_0 + \alpha_1 KN + U_i \quad \text{equ(6)}$$

Where;

The a priori expectations are  $\alpha_1 > 0$  for models I to VI.

- CA = Cognitive Abilities
- KN = Knowledge
- OL = Organizational Learning
- AC = Adaptive Capacity
- DC = Dynamic Capabilities
- $U_i$  = Disturbance Term
- $\alpha_0$  = Intercept
- $\alpha_1$  = Coefficient of the independent Variables.

**Population and Sampling Procedure:**

For the purpose of this study, a total of twenty (20) registered and operational manufacturing organizations in Rivers state were randomly selected using the simple random sampling technique. A sample size of one hundred and twelve (112) respondents were determined using the Taro Yarmen’s formula and the unit of analysis was at the organizational level involving management staff cutting across the twenty (20) selected manufacturing firms.

**Instrumentation:**

A comprehensive questionnaire was designed to help achieve the objectives of study. The quality of the questionnaire was guided by the characteristics of a good questionnaire as specified by Fowler (2008). To ensure quality responses, the questionnaire was designed in line with the 4 points likert scale: (1) Strongly Disagree (SD), (2) Disagree (D), (3) Agree (A), (4) Strongly Agree (SA). The questionnaire was divided into two sections; section A dealt with issues relating to respondents demographics, while section B elicited the information on the variables of the study. A total of one hundred and twelve (112) copies of the questionnaire were distributed.

**Method of Data Analysis:**

The study investigated employee creativity and organizational resilience in manufacturing organizations in Rivers State, Nigeria. Specifically, data collected for this study were analyzed with the aid of the Statistical Package for Social Scientists (SPSS) version 22.

The Pearson’s Product Moment Correlation Coefficient statistical tool was used to determine the impact of the dimensions of the independent variable on the measures of the dependent variable.

**4. ANALYSIS AND RESULTS**

The dimensions of employee creativity: cognitive abilities and employee knowledge were correlated against the measures of the dependent variable which were organizational learning, adaptive capacity and dynamic capabilities. The aim was to ascertain if there is a significant relationship between these dimensions of employee creativity and the organizational resilience measures, and also to determine the direction of the relationship. One hundred and twelve copies of the research questionnaire were distributed, however; only ninety (90) copies were used for the analysis representing 80.4% of total respondents. The Pearson’s Product Moment correlation coefficient statistics was used in analyzing the data collected for the purpose of this study, this was done with the aid of Statistical Package for Social Scientists (SPSS) version 22.



**Hypothesis One:**

**HO<sub>1</sub>:** There is no significant relationship between employee cognitive abilities and organizational learning in manufacturing organizations in Rivers State.

**Table 1: Statistical Analysis for Hypothesis One**

		Correlations	
		CA	OL
CA	Pearson Correlation	1	.768**
	Sig. (2-tailed)		.000
	N	90	90
OL	Pearson Correlation	.768**	1
	Sig. (2-tailed)	.000	
	N	90	90

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

From the result of the above table, the correlation coefficient ( $r = 0.768$ ) between cognitive abilities and organizational learning is strong and positive.

The coefficient of determination ( $r^2 = 0.59$ ) indicates that 59% of organizational learning in the manufacturing firms can be explained by cognitive abilities of the employees. The significant value of 0.000 ( $p < 0.05$ ) reveals a significant relationship. Based on the above therefore, we reject the null hypothesis one. Thus, there is a significant relationship between cognitive abilities and organizational learning of employees in manufacturing organizations in Rivers State, Nigeria.

**Hypothesis Two**

**HO<sub>2</sub>:** There is no significant relationship between employee cognitive abilities and adaptive capacity in manufacturing organizations in Rivers State.

**Table 2: Statistical Analysis for Hypothesis Two**

		Correlations	
		CA	AC
CA	Pearson Correlation	1	.696**
	Sig. (2-tailed)		.000
	N	90	90
AC	Pearson Correlation	.696**	1
	Sig. (2-tailed)	.000	
	N	90	90

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

From the result of the above table, the correlation coefficient ( $r = 0.696$ ) between cognitive abilities and adaptive capacity is strong and positive.

The coefficient of determination ( $r^2 = 0.48$ ) indicated that 48% of adaptive capacity of employees can be explained by the employees' cognitive abilities. The significant value of 0.000 ( $p < 0.05$ ) reveals a significant relationship. Based on the above result, the null hypothesis two is rejected. Therefore, there is a significant relationship between cognitive abilities and adaptive capacity of employees in manufacturing organizations in Rivers State, Nigeria.

**Hypothesis Three**

**HO<sub>3</sub>:** There is no significant relationship between employee cognitive abilities and dynamic capabilities in manufacturing organizations in Rivers State.

**Table 3: Statistical Analysis for Hypothesis Three**

		CA	DC
CA	Pearson Correlation	1	.682**
	Sig. (2-tailed)		.000
	N	90	90
DC	Pearson Correlation	.682**	1
	Sig. (2-tailed)	.000	
	N	90	90

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

From the result of the above table, the correlation coefficient ( $r = 0.682$ ) between cognitive abilities and dynamic capabilities is strong and positive.

The coefficient of determination ( $r^2 = 0.47$ ) indicated that 47% of employees dynamic capabilities can be explained by their cognitive abilities. The significant value of 0.000 ( $p < 0.05$ ) reveals a significant relationship. Based on the result, the null hypothesis three is rejected. Therefore, there is a significant relationship between cognitive abilities and dynamic capabilities of employees in manufacturing organizations in Rivers State, Nigeria.

#### Hypothesis Four

HO<sub>4</sub>: There is no significant relationship between employee knowledge and organizational learning in manufacturing organizations in Rivers State.

**Table 4: Statistical Analysis for Hypothesis Four**

		KN	OL
KN	Pearson Correlation	1	.726**
	Sig. (2-tailed)		.000
	N	90	90
OL	Pearson Correlation	.726**	1
	Sig. (2-tailed)	.000	
	N	90	90

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

From the result of the above table, the correlation coefficient ( $r = 0.726$ ) between employee knowledge and organizational learning is strong and positive.

The coefficient of determination ( $r^2 = 0.53$ ) indicated that 53% of organizational learning can be explained by employees' knowledge. The significant value of 0.000 ( $p < 0.05$ ) reveals a significant relationship. Based on the result, the null hypothesis four is thus rejected. Therefore, there is a significant relationship between employee knowledge and organizational learning of employees in manufacturing organizations in Rivers State, Nigeria.

#### Hypothesis Five

HO<sub>5</sub>: There is no significant relationship between employee knowledge and adaptive capacity in manufacturing organizations in Rivers State.

**Table 5: Statistical Analysis for Hypothesis Five**

		KN	AC
KN	Pearson Correlation	1	.769**
	Sig. (2-tailed)		.000
	N	90	90
AC	Pearson Correlation	.769**	1
	Sig. (2-tailed)	.000	
	N	90	90

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

From the result of the above table, the correlation coefficient ( $r = 0.769$ ) between employee knowledge and adaptive capacity is strong and positive.

The coefficient of determination ( $r^2 = 0.59$ ) indicated that 59% of adaptive capacity can be explained by employees knowledge. The significant value of 0.000 ( $p < 0.05$ ) reveals a significant relationship. Based on the above outcome, we thus reject the null hypothesis five. Therefore, there is a significant relationship between employee knowledge and the adaptive capacity of employees in manufacturing organizations in Rivers State, Nigeria.

### Hypothesis Six

HO<sub>6</sub>: There is no significant relationship between employee knowledge and dynamic capabilities in manufacturing organizations in Rivers State.

**Table 6: Statistical Analysis for Hypothesis Six**

		Correlations	
		KN	DC
KN	Pearson Correlation	1	.795**
	Sig. (2-tailed)		.000
	N	90	90
DC	Pearson Correlation	.795**	1
	Sig. (2-tailed)	.000	
	N	90	90

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

From the result of the above table, the correlation coefficient ( $r = 0.795$ ) between employee knowledge and dynamic capabilities is strong and positive.

The coefficient of determination ( $r^2 = 0.63$ ) indicated that 63% of employees dynamic capabilities can be explained by employees knowledge. The significant value of 0.000 ( $p < 0.05$ ) reveals a significant relationship. Based on the above result, the null hypothesis six is rejected. Therefore, there is a significant relationship between employee knowledge and dynamic capabilities of employees in manufacturing organizations in Rivers State, Nigeria.

## 5. CONCLUSION AND RECOMMENDATIONS

### Conclusion:

The intent of this study was to investigate the relationship between employee creativity and organizational resilience in manufacturing organizations in Rivers State. Specifically this study examined the effects of cognitive abilities and employee knowledge on organizational learning, adaptive capacity and dynamic capabilities. Data collected for the purpose of this study were analyzed using the Pearson's Product Moment Correlation Coefficient statistical tool and the result revealed that a positive and significant relationship exist between the dimensions of employee creativity (cognitive abilities and employee knowledge) and the measures of organizational resilience (organizational learning, adaptive capacity and dynamic capabilities) used in this study.

### Recommendations:

In view of the research findings and the importance of creativity in achieving organizational resilience, the following recommendations are considered important:

- Organizations through institutionalized policies can effectively manage their employees' creative 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's resilience.
- Organizations should encourage employees' contributions to the modification and improvement of their products from time to time.

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