

EMPLOYEE DIVERSITY AND ORGANIZATIONAL INNOVATION IN FOOD AND BEVERAGE FIRMS IN PORT HARCOURT

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ABSTRACT

This empirical study examined the relationship between employee diversity and organizational innovation in Food and Beverage firms in Port Harcourt, Rivers State. The quasi-experimental research design was adopted because it is a cross sectional research survey. The population of this study consists of 280 employees in selected five Food and Beverage firms out of the 14 registered Food and Beverage firms operating in Port Harcourt. Sample size of 125 respondents was determined using the Taro Yamane's formula (1964). Data were collected through copies of questionnaire and were analyzed using Spearman's Rank Order Correlation Coefficient Statistical technique via the use of Statistical Package for Social Sciences (SPSS) version 21.0. The findings in this study established the fact that there is significant relationship between Employee diversity-dimensions and Organizational innovation measures. It is therefore recommended that, the management of the targeted food and beverage companies under study should control and streamline the manifestations of diversity in such a way that promotes uniqueness but yet retains some level of standardization and workforce cohesion. Management should emphasize on control mechanisms within the organization which coordinate behaviours and manage deviance as a result of diversity or differences within the workforce in such a way that workers values would be more aligned to achieving organizational goal.

Keywords: *Administrative Innovation, Educational Background, Employee Diversity, Organizational Innovation, Personality Traits, Team Function, Technological Innovation.*

1.0 INTRODUCTION

Organizations' as well as the scientific community are taking more and more notice of the importance of organizational innovations. Concepts as lean production and total quality management have entered the production philosophies of many organizations and provide answers to the question of how organizations can handle the challenges imposed on them by changing market conditions and tightening competition. Companies have to cope not only with the pressures to decrease costs and to raise quality standards but also with an increasing individualization of demand.

An organization operates on the basis of some set of shared assumptions about why it exists, what its business is, and how it relates to the world. These assumptions act powerfully within every organization. They give rise to the culture of the organization, inform and limit its capacity for change, and explain much of its institutional behaviour.

In today's dynamic business environment with complexities, innovativeness becomes the pivotal point to organization's competitive sustenance, organizational performance and longevity. Business environment is characterized by fast changes in technology, reduced product life cycles and globalization that imitates and necessitates modern day competition (Mumford & Gustafson, 1988). Innovation is the creative skill and efforts made to create something new. Innovation may introduce an organization to alternative pathways of thinking and acting, ones never previously explored. Changes like this could always be disruptive to some degree and - because they are initially unproven, they can mean high levels of uncertainty for extended periods. So why would an organization pursue this kind of path? The answer, in part, could be that these types of change, promise to have an unusually high impact on the organization's ability to generate public value. Across the country for instance, involving clients in program planning would have been largely unthinkable just a decade ago.

Times of great and rapid change, such as the food and beverage sector is experiencing now, demand that each organization re-examine the assumptions and beliefs that have led it to success in the past, in order to see if and where those assumptions may need to change, where they no longer reliably predict success. New hypotheses about success drive innovation and generate effective new strategies for these challenging times. Innovation may also take an organization and its programs, down a new, previously unpredictable path, which turns out to be deeply linked to the organization's purpose. For instance, changing customer taste, prices up or down, to respond to economic and demographic changes may result in a logical step in extending an organization's business model.

Businesses must be able to interplay with their environment (Tecce, 2003). One good way for a firm to continuously interplay with its environment is through innovations. As the business environment is fast becoming more competitive day by day, it becomes very necessary that corporate entities should come up with strategic ways of enhancing the sustenance and survival of their organization in order to compete favourably even in the face of turbulent and challenging business environment.

Furthermore, firms should focus more on innovation in situations of business dynamism and instability (Miles & Snow, 1998). The continuous search and research for innovative ideas should be accepted and adopted as a necessity for improving organizational performance and productivity. There has been very serious competition among organizations, struggling for greater market share and market growth. One of the major reasons for this competition is to ensure that individual organization achieve competitive advantage that is sustainable in a competitive environment. Most organizations have profit as their major objective. This has directed the various activities of organizations. For an organization to attain this profit motive, it has to create value for its stakeholders. Value is better defined by the user. In creating the value that meets stakeholders' expectations, organizations will continue to transform themselves. It is therefore imperative for organizations to transform their current state into preferred state (Nadler & Tushman, 1996).

Innovation requires the development of new customer value through the application of modern techniques that meet their needs and that of the market in strategically new ways. Apart from modern technologies that will promote innovation, the composition of the workforce in terms of age, education, ethnicity, gender, organizational function or team function, physical requirement, sexual orientation and personality etc. cannot be overemphasized if an organization will experience the needed innovation it requires. Similarities and differences exist among employees as noted above. This was supported by (Robinson, 2006) who asserts that employee diversity is used to describe an organization that has become heterogeneous with the mix of people in terms of age, gender, education, sexual orientation, culture organizational function and personality etc.

It is the responsibility of every organization to harness these differences and ensure that the organization keeps pace with change in technology, ensures the realization of technological innovation (product and process innovations) and administrative innovation (service innovation). This will in great measure help the organization remain competitive in business, makes its profit, attain sustainability, adapt and adjust to its business environment. The researcher therefore wants to investigate the role employee diversity plays on organizational innovation in food and beverage firms in Port Harcourt, Rivers State. Investigation will also be carried out to ascertain how dependent organizational innovation is on employee diversity.

Innovative organizations are characterized by greater uncertainty and variability due to the unstable, dynamic and challenging business environment. Often time, the food and beverage sub-sector of the manufacturing industry in Nigeria are faced with myriad of problems, challenging the realization of firms' innovation dreams and other objectives through people in the workplace.

The food and beverage firms, particularly those operating in Port Harcourt are challenged with the problems of technology or technical-know-how, knowledge and skill, idea sharing, creativity and innovation, and strategic human resource policies etc. It is believed that innovation consists of the design, development, and diffusion of a technology (or a practice) which is totally new (Utz, 2006). Not much effort had been made by companies in this sector to creating or adapting new technologies that drives firms' innovation in product, process and service. Many firms in this sector are still battling with the challenges of moving to the "investment driven" stage, where the transfer

of technology and investment in human and physical capital allows them to prepare the ground for the “innovation” stage (Porter, 1991). Most importantly, there is urgent need for firms in the food and beverage sector to learn to build a technical culture that supports the adoption and, subsequently the adaptation, of existing (often foreign) technologies to their local context and their use (Utz, 2006). Again, knowledge and skills are directly related with innovative product, innovative procedure, and innovative administration (Ling & Nasurdin, 2010). Most companies in this sector are not knowledge-driven at all and have had challenges of applying global knowledge to local practices that could result in improved performances and competitiveness. It is believed that organization’s growth and global competitiveness are increasingly driven by knowledge (Salmi, 2009), which is characterized by close links between science and industrial technology. Management should place greater importance on innovation for organizational growth and competitiveness, increased significance of education and training, and greater investment in intangibles such as research and development (World Bank, 2005a). This could be achieved where management invest more in knowledge, and this means investing in strategies that will bring about significant changes leading to better and new ways of doing things through its diverse employees. The disparities in knowledge management activities of firm that build structure in order to analyze corporate knowledge requirements indicated that firm performance is considerably affected by these management gaps (Lin & Tseng, 2005). However, a knowledge-driven organization, may be able to create, disseminate, and use knowledge to enhance their creativity, innovative ideas, growth and development. Knowledge and skill have always been at the core of any organization’s development process, enhancing its performance, innovativeness and competitiveness (Ling & Nasurdin 2010). An organization applying existing knowledge that is new to a firm or new to an industry will definitely reap huge benefits. The application of knowledge brings about more efficient ways of producing and delivering goods and services at lower costs to a greater number of people (Salmi, 2009). The dimensional process of knowledge and inventiveness in products, process and service could raise gamut of possibilities for enhancing performance and competitiveness. While organizations that are not able to keep pace with rapid change will lag behind and eventually go bankrupt. Secondly, the importance of creativity and innovativeness cannot be overemphasized. The challenges of creativity and innovativeness of firms in this sector has been in their creative capacity in modern thoughts or practices (Roger, 1995) or ability to create new products or process that could be first launched in the market (Freeman & Soete, 1997). The diversity of organizational innovation implies applying different business strategies that are more decentralized and more product- or customer-oriented organizational structures aimed at improving companies’ flexibility. This means that, companies need to take into consideration those different kinds of innovation that need management attention and resources that would enhance their innovative ability (Bessant, 2005). The deficiencies in creativity and innovation have led to most firms’ poor performance and inability to have good competitive edge in the manufacturing industry at large.

According to Hsueh & Tu, (2004), innovation can strengthen incorporated performance, profitability and sales growth. Another challenge confronting firms in this sector is the formulation and implementation of a strategic human resource policy which is very significant for an effective human resource management in the workplace. Firms in the food and beverage sector are challenged with issues of managing its diverse employees, and in their effort to recruit, train and

keep employees who are flexible, risk takers, tolerant of uncertainty and ambiguity (Chen & Huang, 2009). Management need to establish an innovation climate that engenders appropriate policies and practices with respect to people and work. For instance, a well implemented diversity policy and programs may to a large extent foster effective management of employees’ diversity sets that would result in mutual relationships of employees, cooperation, sharing of ideas, creativity, team-work and better innovation in the workplace. Eventually, strategic human resource management had a direct effect on technology innovation and indirect through knowledge management (Chen & Huang, 2009). Management should be radical about its inventiveness and creativity by giving its employees the right knowledge, skills and abilities required on their job through training (Hamel & Getz, 2004). While, effective diversity management in the workplace would bring about better performance and innovation, a strategic human resource practices in terms of staffing, training, participation, performance appraisal enhance a firm’s capability in introducing new products, services, and management systems, leading to better innovation outcomes (Chen & Huang, 2009). Discriminations, conflicts and ethnocentrisms and high rate of labour turnover are practically reduced to an insignificant level where effective human resource policies are well implemented.

On the contrary, if the investigation is not carried out, the management of food and beverage firms in Port Harcourt such as; Floor Mills Limited, Dufil Prima Foods Plc, Coca Cola Company Plc, Nigeria Pabod Breweries Company Plc and Erisco Foods Nigeria Ltd., will not see the importance of developing appropriate strategies to solving their innovation challenges through proper management of their employee diversity. And there is the possibility of these companies under study to have similar recurring issues that may negatively affect the realization of their business objectives.

Conceptual Framework

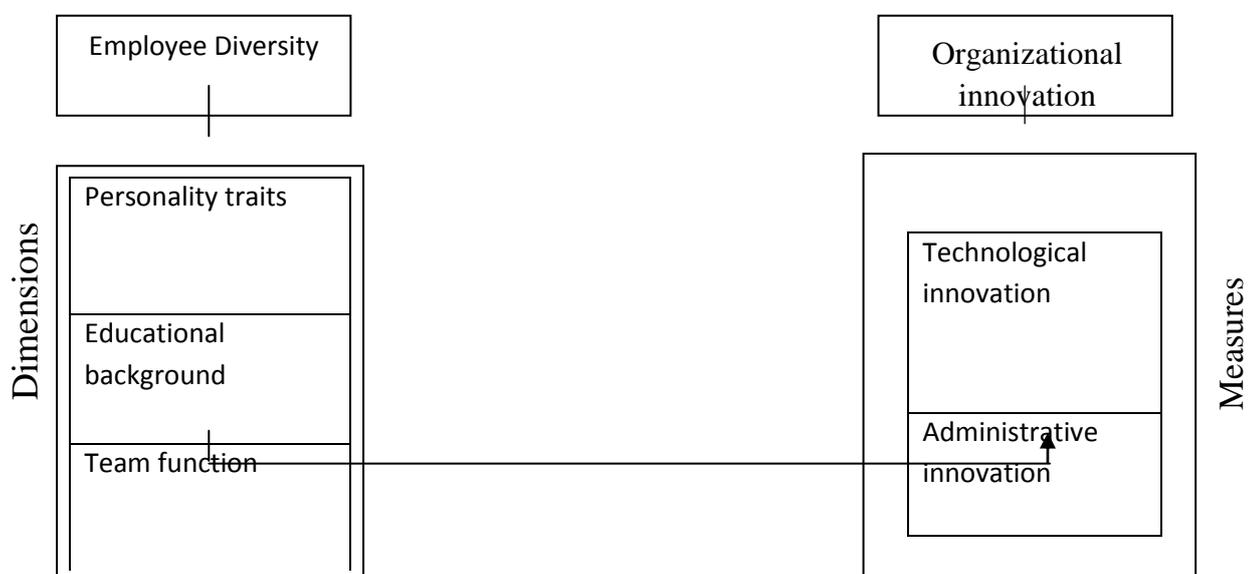


Fig 1. Conceptualized by Researcher, (2017).

The conceptual framework for this study will guide the researcher to achieve the objectives of the study. The dimensions of employee diversity were adapted from the works of Cox & Blake, (1991) and Kreitner & Kinicki, (2007), while measures of organizational innovation were adapted from the works of Chuang, (2005).

1.1 Aim of the Study

The main purpose of this study is to examine the relationship between employee diversity dimensions (employee personality traits, educational background and team function) and organizational innovation measures (technological and administrative innovation) in food and beverage firms in Port Harcourt, Rivers State.

1.2 Research Hypotheses

In this study, the following hypotheses have been formulated by the researcher to guide the investigation:

H₀₁: There is no significant relationship between employee personality traits and technological innovation.

H₀₂: There is no significant relationship between employee personality traits and administrative innovation.

H₀₃: There is no significant relationship between employee educational background and technological innovation.

H₀₄: There is no significant relationship between employee educational background and administrative innovation.

H₀₅: There is no significant relationship between team function and technological innovation.

H₀₆: There is no significant relationship between team function and administrative innovation.

2.0 Literature Review

Concept of employee diversity

Conceptualization of diversity is that of a group characteristic not an individual characteristic which deals with how differences between group members affect group functioning and performance, not how being different from others affects individual works (Chattopadhyay et al, 2004). This concept relatively defines the differences among people and also their similarities. Traditionally, the term diversity has been widely used to refer to the demographic composition of a workforce. Some studies have also looked at employee diversity using the compositional approach, also known as surface level diversity (SDL) or demographic diversity which refers to the extent to which a unit is heterogonous on characteristics such as gender, ethnicity, age, educational background, organizational tenure, organizational function and role levels (Tui & Gutek 2000; Fajana et al, 2011). While the deep-level diversity (DLD) shows the level composition of a group differences with respect to attitudes, personality traits and values (Barrick et al, 1998; Harrison et al, 2002; Thatcher et al, 2003).

Robbins (2006) refers diversity as organizations that are becoming more heterogeneous with the mix of people in terms of age, gender, culture, race, educational background, personality, and ethnicity. Diversity encompasses most characteristics that an employee possesses that affect the way he or she thinks and do things in the workplace. Some studies have also explained employee diversity using four dimensions to include; personality types (extraversion, introversion, agreeableness, conscientiousness, emotional stability, openness to experience); internal dimensions (ethnicity, race, religion, culture, sex, physical ability); external dimensions (work experience, marital status, educational background, job satisfaction and income) and lastly, organizational dimensions to include; departments and designations (Kinicki, 2008). Similarly, diversity applies to all employees and do not only encompass certain range of differences but the entire spectrum of individual differences that makes people unique and management of a diverse workforce poses both opportunities and threats, which management must be aware of in its decision making processes (Kreitner, 2001). No matter the type of organization, it is undisputable that people's actions, inactions and counter actions could engender effectiveness to achieving organizational competitiveness and future developments or dampen cohesiveness of employees and inhibit organization's total success to achieving organizational innovation.

Personality traits

Personality traits are referred to as structures and propensities inside a person that explains his or her characteristic patterns of thought, emotion and behaviours (Colquitt, 2009). It is a recurring regularities or trends in a person maintained. The personality trait of an individual describes the stable set of characteristics that establishes his or her identity (Kreitner, 2001). This is classified into positive personality traits which includes; include; patience, honesty, reliable, intelligent, trusting and negative personality traits such as, - laziness, self-centered, rudeness, obnoxious and unfriendly.

Indeed, personality traits factors are extremely important in explaining the individual's functional behaviours and outcomes in the workplace. Some studies have also remained focused on the five-factor model (FFM) personality traits (Costa & McCrae, 1985). The five-factor model of personality-; conscientiousness, extraversion, emotional stability, agreeableness and openness to experience act as a parsimonious model of distinguishing between differences among individuals' dispositions (Zimmerman, 2008). An employee's personality traits characteristic is a function of his or her behavioural outcomes and actions in the workplace. The personality trait establishes a person's identity and relates to the psychological growth and development of the individual and primarily expressed the individual preferences for work environments. Often times, negative personality traits prove disastrous and cause undesirable tensions and worries in organization (Khosla, 2009). An employee's personality trait influences his or her behavioural outcomes and actions which could affect his perceptions about creativity and change that brings about organizational innovation. Employee's conscientiousness is the most predictive of the employee productivity and performance and therefore positively influence total work performance (Hurtz & Donovan, 2000; Zimmerman, 2008).

Educational background

Education is referred to as a course of study for individuals over a period of time, to provide those being taught with requisite knowledge that will help them throughout life (Hornby, 2000). Education as a concept connotes a life-long learning process which develops the mind and skills of the individual so that he or she can positively contribute to organizational development and growth and become very useful to himself as well. Education can be looked at as a process of teaching, learning and training to improve knowledge and develop skills. Basically, learning occurs as a process of inquiry where the aim is to progressively expand one's knowledge and skills by relying on previous experiences and knowledge (Hakkarainen et al, 1999). It is from this broad perspective of individuals surrendering their will to acquire knowledge, develop their mind set, skills and creative abilities and contributes their own quota to developing their organizations and making it knowledge-driven.

However, educational background refers to the academic credentials an employee obtained which positively relates to his or her knowledge, experience, competence, creativity, skill and behaviours. The "educated employee" refer to the individual who hold at least a bachelor's degree and because the degree is necessary for entry into many higher-paying occupations (Howard, 1986; Trusty & Niles, 2004). Some research studies suggest that individuals with higher levels of education have both greater fluid and crystallized intelligence (Ceci, 1991; Neisser et al, 1996). Fluid intelligence refers to the capacity of working memory, abstract reasoning, attention, and processing complex information and thus declines as individuals age (Kanfer & Ackerman, 2004). While crystallized intelligence is the general knowledge, extent of vocabulary and verbal comprehension. Again there is substantial evidence that individuals' educational attainments are associated with positive career outcomes, including salary level, rates of promotions, development opportunities and job mobility as well (Cappelli, 2000; Howard, 1986; Lazear, 1981; Ng, Eby, Sorensen, & Feldman, 2005).

Team function

In recent times, one of the most interesting developments has been the shift from tasks organized around individual jobs to team based task structures. Teams are developing and pool of diverse ideas, knowledge and creative thinking to solving production problems and creating corporate strategy are much invoke in organizations. Researchers have focused efforts on trying to understand the factors that promote innovation in organizations (Mohrman, Cohen & Mohrman, 1995). Theoretically, one factor that has received attention is team-based working, that brings people together to work on shared objectives to produce divergence of orientation, experiences and knowledge that will promote more comprehensive processing of decisions and search for a wider variety of options during the decision making process (De Dreu & West, 2001; Jackson, 1996; Guzzo, 1996; Milliken & Martins, 1996; Paulus, 2000). Scholars have come to accept that multiplicity of views of team is considered a key driver to organizational effectiveness, as the reflection of the variety of knowledge, skills, and abilities amongst team members in relation to the uncertainty or dynamism in the competitive business environment (Cannella et al, 2008; Carpenter & Fredrickson, 2001). It is a fact that, initiative plays an important role in the innovation process, individuals with

initiative are more likely to take an active approach to work, to go beyond what is formally required in their jobs and to have the persistence to follow their creative ideas through to implementation (Miron et al, 2004).

Concept of organizational innovation

The word innovation stems from the Latin *innovare*, meaning to make something new. Innovations are often new adaptations or some new combination of existing ideas objects or methods. Organizational innovation emerged, developed and grew at the micro level within the organization. This focuses on theories of organizational cognition and learning (Argyris & Schon, 1978; Duncan & Weiss, 1979) as well as on theories of organizational creativity (Amabile, 1988). All these research approaches understand organizational innovation either as a necessary adaptation to the introduction of new technologies, or as a pre-condition for successful product, process and service innovations. They try to establish how and under which circumstances organizations change and tend to analyze the triggers and the paths companies take to achieve a structure increasingly capable of continuous problem solving and creating new things to the market needs competitively. The independent contribution of organizational innovations to the superior performance and competitiveness of an organization has still not been given good attention at the period. It is no doubt, that most organizations consider innovation as rhetoric than reality.

Technological innovation

Innovation is "an idea, practice, or object that is perceived as new by an individual or other unit of adoption" (Rogers, 2003). Technological innovation enables the creation and introduction of new products and or new production methods or processes categorized as totally new to the market. It facilitates the efficient use of technical product and process as their success depends on the degree to which the organizational structures and processes and human capital respond to the use of these new technologies (Womack et al, 1990; Hammer & Champy, 1993; Goldman et al, 1995).

Technical or technological innovation is categorized into secondary dimensions to include; product innovation and process innovation (Chuang, 2005). Product innovation refers to the development of new products, changes in design of established products or use of new materials or components in the manufacture of established products (Quinn, 2006). It is a systematic work process, drawing upon existing knowledge gained from research and practical experiences directed towards the production of new materials, products and services including prototypes (Huge & Hollingsworth, 2005).

Administrative innovation

Hamel, (2006) defines administrative innovation as 'a marked departure from traditional management principles, processes, and practices or a departure from customary organizational forms that significantly alters the way work is performed in organizations'. The paradigm shifts of firms competitive advantage comes not only as a result of technological innovation, but as a result of innovation in administrative principles and processes that create long run advantage. While, not

every administrative innovation will result in competitive advantage is not an excuse for companies not to innovate because the more a company is innovative, the greater the chance of reaping a huge return (Hamel, 2006).

Basically, Organizations need to institutionalize innovation as a core value that should involve every functional department and personnel. The dynamic business environment is associated with fast changes in customers' taste and strong competitions. For this reason, organizations have found ways to free their innovators. Most often, administrative innovation may come with changing the status quo by altering organizational design. This depends on the nature and goals of organization. Some organizations usually move to designs that have multi-disciplinary approaches, greater flexibility and autonomy, (Hamel, 2006). This type of innovation engenders new and effective procedures, improve responsibilities in the divisional structure of functions and new organizational method in business practices. It encourages efficiency and work effectiveness by reducing to the barest minimum bureaucracies, idle time and costs imbedded in work functions or services to the market.

Employee diversity and Organizational innovation

This perspective provides an analysis of the relationships between employee diversity and organizational innovation. Diversity applies to entire spectrum of individual differences that makes people unique and management of a diverse workforce poses both opportunities and threats, which management must be aware of in its decision making processes (Kreitner, 2001). Organizational innovation is greatly a concerned means of responding to the changes in the business environment. It presents an immediate source of competitive advantage since it has a significant impact on business performance with regard to productivity, lead times, quality and flexibility (Womack et al, 1990; Hammer & Champy, 1993; Goldman et al, 1995).

Most times, organizations face challenges- trying to come up with new inventions to enable them stay competitive and move along with the trend of technology era. Organizational innovation could easily be achieved through proper people's management, understanding and appreciation of human differences. Managing diversity is a business imperative, strategic priority and a competitive necessity (McEnrue, 1993). Establishing an innovation climate requires appropriate policies, strategies and programs with respect to employees and work. Effective human capital management practices in terms of staffing, training, participation, and employee motivation enhance a firm's capability in introducing new products, services and management systems, leading to better innovation outcomes (Chen & Huang, 2009). In addition, innovation can also be achieved where the employee is intrinsically motivated to perform (Prather, 2010). Again, organizational innovation could mostly be achieved in an environment that engenders employees' relationships which supports effective communication, creative thinking, and exchange of varieties of ideas, team work and total commitment. Because organizational innovation requires a high level of input from diverse employees, the organization must consider ways in which employees can have greater input into decision making, especially that which affects their work. This is to say that, a high level of participation creates an environment that encourages employees to bring together pool of new creative ideas, skills, and exchange of knowledge that enhances innovative outcomes (Chen & Huang, 2009).

3.0 METHODOLOGY

3.1 Research Design

Research design refers to a framework used by a researcher in order to collect and analyze data in a given study (Baridam, 2001). In this study, the cross-sectional survey research design was adopted in the generation of data and the assessment of the relationship between the variables. The quantitative methodology was applied involving the use of questionnaires in collecting data from respondents and as such the descriptive and inferential statistical techniques were also adopted in the analysis of the variables.

3.2 Population of Sampling Procedure

The total target population of this study consists of the entire registered food and beverage firms in Port Harcourt. The accessible population of this study consists of 280 employees in five food and beverage firms and these include; Coca Cola Nigeria Plc, Nigeria Pabod Breweries Plc, Flour Mills Ltd, Dufil Prima Foods and Erisco Foods Ltd, selected out of the ten (10) registered food and beverage firms operating in Port Harcourt as sourced from Manufacturers Association of Nigeria (MAN) survey report, 2017.

Table 3.1: Population Statistics of Five Selected Food and Beverage Firms

S/No	Food and Beverage firms	Accessible population
1.	Coca Cola Nigeria Plc	60
2.	Nigeria Pabod Breweries Plc,	82
3.	Flour Mills Ltd,	56
4.	Dufil Prima Foods	52
5.	Erisco Foods Ltd	30
	Total	280

Source: Research Desk, (2017).

The sample size of employees of the firms under study was determined using Taro Yamene's formula (1967). To determine the number of copies of questionnaire for each company, the researcher applied Bowley's, (1964) population allocation formula;

To determine sample size;

The formula is usually given as
$$n = \frac{N}{1+N(e)^2}$$

Where:

n = Sample size

e = Tolerable error level (5%)

N = Population size

$$n = \frac{280}{1+280(0.05)^2}$$

n = 165 employees

Bowley's, (1990) Population Allocation Formula;

$$n_h = \frac{n \times N_h}{N}$$

Where;

n_h = Copies of questionnaire allocated to each company

n = Sample size

N_h = Number of workers used in each company

N = Population

Table 3.2: Rationale for Questionnaire Distribution

S/N	Food and Beverage Firms	Accessible Population of Respondents	Unit Allotment $N_h = \frac{n \times N_h}{N}$	Unit Sample
1.	Coca Cola Nigeria Plc	60	$\frac{165 \times 60}{280}$	35
2.	Nigeria Pabod Breweries Plc.	82	$\frac{165 \times 82}{280}$	48
3.	Flour Mills Ltd.	56	$\frac{165 \times 56}{280}$	33
4.	Dufil Prima Foods	52	$\frac{165 \times 52}{280}$	31
5.	Erisco Foods Ltd.	30	$\frac{165 \times 30}{280}$	18
	Total	280		165

Source: Research Desk, (2017).

Copies of questionnaire distributed to 165 employees of the five selected food and beverage firms are as follows: 35 copies of questionnaire was administered to employees of Coca Cola Nigeria Plc, 48 copies of questionnaire was administered to employees of Nigeria Pabod Breweries Plc, 33 copies of questionnaire was administered to employees of Flour Mills Ltd, 31 copies of questionnaire was administered to employees of Dufil Prima Foods Plc, and 18 copies of questionnaire was administered to employees of Erisco Foods Ltd.

3.3 Data Collection Method

Primary source: The data of this research was generated through the administration of questionnaires. Closed-structure questionnaires were distributed to the managers and other stakeholders of the participating organizations which were employed for the data analysis.

Secondary source: The information used was obtained from published and unpublished materials by eminent scholars found relevant to the research topic under study. Examples are Textbooks, Journals, and Internet materials were also consulted.

3.4 Data Analysis Techniques

The Spearman's rank order correlation coefficient (Rho) and partial correlation coefficient were used as the statistical techniques for hypotheses testing with the aid of statistical package for social sciences to run the analysis. Hypothesis testing was done at 5% level of significance. While rejecting null hypotheses with probability value less than 0.05 and accepting hypotheses with probability value above 0.05, which shows the significance of relationship between the dependent and independent variables. The descriptive and inferential statistical techniques were also adopted in the analysis of the variables (percentage and frequency distribution tables) because number of different responses per research question for the study was required. The formula for the Spearman's Rank-Order Correlation Coefficient is given as:

$$r_s = 1 - \frac{6\sum d^2}{N(N^2 - 1)}$$

Where: $\sum d^2$ = sum of the squared differences in the ranking of the subject on the two variables.

N = is number of subjects being ranked;

4.0 Results and Discussion

A total of seven bivariate hypotheses were postulated which sort to determine the association between the dimensions of employee diversity and the measures of organizational innovation in the selected companies. Each hypothesis is tested herein at a 95% confidence interval and significant probability (P) values are adopted as basis for the rejection of the null statement or in the case of insignificant probability (P) values – the acceptance of the hypothesis.

Table 4.1: The analysis of the effect of personality traits on organizational innovation

			Personality	Tech.	Admin.
Spearman's rho	Personality	Correlation Coefficient	1.000	.313**	.560**
		Sig. (2-tailed)		.000	.000
		N	138	138	138
Tech	Tech	Correlation Coefficient	.313**	1.000	.570**
		Sig. (2-tailed)	.000		.000
		N	138	138	138
Admin	Admin	Correlation Coefficient	.560**	.570**	1.000
		Sig. (2-tailed)	.000	.000	
		N	138	138	138

Source: Survey result, (2017)

The result of the analysis reveals that employee personality traits significantly influence innovativeness in the selected organizations:

- i. The analysis reveals a significant relationship between employee personality traits and technological innovation where $\rho = .313$ and $P = 0.000$ which is significant at 0.05. The null hypothesis is therefore rejected in this instance.
- ii. The analysis reveals a significant relationship between employee personality traits and administrative innovation where $\rho = .560$ and $P = 0.000$ which is significant at 0.05. The null hypothesis is therefore rejected in this instance.

Table 4.2: The analysis of the effect of Educational background on organizational innovation

			Education	Tech	Admin
Spearman's rho	Education	Correlation Coefficient	1.000	.503**	.690**
		Sig. (2-tailed)		.000	.000
		N	138	138	138
	Tech.	Correlation Coefficient	.503**	1.000	.570**
		Sig. (2-tailed)	.000		.000
		N	138	138	138
	Admin.	Correlation Coefficient	.690**	.570**	1.000
		Sig. (2-tailed)	.000	.000	
		N	138	138	138

Source: Survey result, (2017)

The result of the analysis reveals that educational background significantly influences organizational innovation in the selected organizations:

- i. The analysis reveals a significant relationship between employee educational background and technological innovation where $\rho = .503$ and $P = 0.000$ which is significant at 0.05. The null hypothesis is therefore rejected in this instance.
- ii. The analysis reveals a significant relationship between employee educational background and administrative innovation where $\rho = .690$ and $P = 0.000$ which is significant at 0.05. The null hypothesis is therefore rejected in this instance.

Table 4.3: The analysis of the effect of Team function on organizational innovation

			Team	Tech	Admin
Spearman's rho	Team	Correlation Coefficient	1.000	.743**	.688**
		Sig. (2-tailed)	.	.000	.000
		N	138	138	138
	Tech	Correlation Coefficient	.743**	1.000	.570**
		Sig. (2-tailed)	.000	.	.000
		N	138	138	138
	Admin	Correlation Coefficient	.688**	.570**	1.000
		Sig. (2-tailed)	.000	.000	.
		N	138	138	138

Source: Survey result, (2017)

The result of the analysis reveals that team function significantly influences organizational innovation in the selected organizations:

- i. The analysis reveals a significant relationship between team function and technological innovation where $\rho = .743$ and $P = 0.000$ which is significant at 0.05. The null hypothesis is therefore rejected in this instance.
- ii. The analysis reveals a significant relationship between team function and administrative innovation where $\rho = .688$ and $P = 0.000$ which is significant at 0.05. The null hypothesis is therefore rejected in this instance.

The study therefore finds that employee diversity as a predictor variable significantly enhances the organizational innovation of the selected organizations in such a way that features such as technological innovation, and administration innovation are enhanced and more pronounced.

Discussion of Findings

Personality traits and organizational innovation

The evidence from the test on the relationship between personality traits and the measures of organizational innovation (personality traits and technological innovation, $\rho = .313$; personality traits and administrative innovation, $\rho = .560$) indicate that personality traits is a substantial antecedent of organizational innovation. The results obtained are in line with the assertions of (Colquitt, 2009), who in his study concluded that personality traits and behaviour within the organization affected the extent to which relationships could be considered as cordial and as such also influenced the level of performance of the organization. The evidence from the analysis also supports the view put forward by Kreitner, (2001) that individual differences within the organization are highly associated with the level of innovation and performance of the organization. The findings therefore offer support and validation of the evidence put forward by previous studies (Robinson, 2006) as it indicates that personality traits significantly enhances measures of organizational innovation such as technological innovation and administrative innovation.

Educational background and organizational innovation

The evidence from the test on the relationship between educational background and the measures of organizational innovation (educational background and technological innovation, $\rho = .503$; educational background and administrative innovation, $\rho = .690$). The results reveal that educational background as a form of employee diversity significantly influences the level of technological and administrative innovation within the organization. In an earlier study, Robinson, (2006) observed that the training and the educational background of the individuals contributed to their effectiveness and performance of the workers and as such the overall innovation of the organization. The findings presented herein affirm to the role of educational background in the enhancement of measures such as technological and administrative innovation.

Team function and Organizational innovation

The evidence from the test on the relationship between team function and the measures of organizational innovation (team function and technological innovation, $\rho = .743$; team function and administrative innovation, $\rho = .688$). The results support the assertions which identify team function as being important and necessary for organizational innovation. The evidence from the analysis corroborates the evidence presented by Robinson, (2006) and Kreitner, (2001) that team collaboration and functioning affords the organization enhanced cohesiveness, knowledge transfer and as such improved technological and administrative innovation.

5.0 Conclusion

The study finds that employee diversity contributes to enhancing the manifestations of organizational innovation. Given the evidence of this relationship between the variables, the study therefore concludes as follows:

- i. Diversity based on the personality traits of the employee is significantly associated with the innovation of the organization. As such, personality traits are affirmed to impact on organizational innovation measures such as technological and administrative innovation.
- ii. Diversity based on the educational background of the employee is significantly associated with the innovation of the organization. Hence, educational background is confirmed to influence the organizational innovation measures such as technological and administrative innovation.
- iii. Diversity based on the team functions of the workers is significantly associated with the innovation of the organization. Consequently, team functions are affirmed to enhance innovation measures such as technological innovation and administrative innovation.

Recommendation

The findings and conclusions provide a position for the study in line with the manifestations and relationship between the study variables (employee diversity, organizational innovation and organizational culture), hence, the following recommendations are put forward:

- i. The management of the selected target food and beverage organizations should control and streamline the manifestations of diversity in such a way that promotes uniqueness but yet retains some level of standardization and workforce cohesion.
- ii. Recruitment and promotion exercises should be structured to stabilize differences, diversity and enhance uniformity at various levels such that workers do not feel maligned or side-lined but such organizational activities should be transparent, fair and consistent.
- iii. The management of the selected food and beverage organizations should provide for and emphasize on control mechanisms within the organization which coordinate behaviour and manage deviance as a result of diversity or differences within the workforce in such a way that workers values would be more aligned with those of the organization.

Contribution to Knowledge

The contributions of this study to the body of knowledge on organizational innovation are as follows:

- i. The data generated from the empirical activities of the study can be used in further studies on other related subjects. It can also assist the management of the examined organizations and other related organizations in decision making and policy designs given its specifications to food and beverage firms in Port Harcourt.
- ii. The assessment of the employee diversity and its dimensions (personality traits, educational background and team functions) provides a more enriched content to the already existing literature and research on organizational innovation. This is as previous studies have tended to focus on the effect of other variables as antecedents on the criterion variable.

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