

## Effect of Workforce Diversity on the Competitiveness of Nigerian Bottling Company South East, Nigeria

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**Abstract:** This study examines the effect of workforce diversity on the competitiveness of Nigerian bottling company in South-East, Nigeria. The study adopted descriptive survey research design. The population of the study was 816, from which a sample size of 197 was determined using Bill Godden formula at 5% error tolerance and 95% level of confidence. The sources of data were primary and secondary. Primary data were collected through structured questionnaire while secondary data were gotten from statistical bulletins, electronic journals, theses and dissertation repositories. The primary instrument for data collection was designed on a 5-point Likert scale in line with the objectives of the study. A total of 197 copies of questionnaire were distributed to respondents, out of which 190 copies were correctly filled and returned. Validity of the instrument was carried-out using content validity, and this was done by five management experts from both the academia and the food and beverages industry. The reliability of the instrument was tested using internal consistency test which makes use of Cronbach alpha as a test statistic, and the result yielded 0.833. The hypotheses were tested using Pearson product moment correlation coefficient. The study found out that there was a significant positive relationship between ethnic diversity and workforce innovativeness ( $r = 0.835, p < .05$ ). The study also revealed that there was a significant positive relationship between age diversity and adaption to changes ( $r = 0.855, p < .05$ ). In conclusion, workforce diversity has a significant positive effect on the competitiveness of firms. On the basis of its findings, the study recommended that firms should adopt some degrees of workforce diversity dimensions in order to enhance their competitiveness.

**Key Words:** Workforce, Diversity, Competitiveness, Ethnicity

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### 1. INTRODUCTION

#### Background of the Study

In the past twenty years, the growing diverse work force in organizations has led scholars to pay increased attention to the issue of workforce diversity (Gupta, 2013). Business organizations in

the developed and developing countries are all caught up in the globalization web, which has heralded increased demographic and socio-cultural diversity in the workforce. In the light of this reality, the recognition of workforce diversity as a source of competitive advantage has become a reality in organizations today and has generated an enormous amount of interest over the recent years among business leaders, governments and within the civil society (Kochan, Ely, Joshi & Thomas, 2002). Companies are recognizing the need to leverage their diversity in the context of globalization to maintain a competitive edge in the marketplace (Richard, 2009). Childs (2005) argues that any business that intends to be successful must have a borderless view of the workforce by ensuring that workforce diversity is part of its day to day business conduct. Today's workforce is getting more and more heterogeneous due to the effects of globalization (Kurtulus, 2012). When workforce diversity is not managed properly, there will be a potential for higher voluntary employee turnover, difficulty in communication and destructive interpersonal conflicts (Elsaid, 2012). The reverse leads to a more engaged workforce and subsequently improved organizational performance (Gitonga, Kamaara & Orwar, 2016).

Diversity can generally be defined as recognizing, understanding and accepting individual differences irrespective of their race, gender, age, class, ethnicity, physical ability, sexual orientation, spiritual practice and so on (Dike, 2013). Grobler (2002) also supports this view by adding that each individual is unique but also shares any number of environmental or biological characteristics.

Nigeria, like many nations of the world is ethnically heterogeneous, and is characterized by other demographic diversities, which are reflective in the Workforce. This phenomenon is one of the most challenging human resource and organizational issues of our time (Ogbo, Kifordu & Wilfred, 2014). Academicians and practitioners have sought to understand the impact of diversity and its management on organizational effectiveness (Afolabi & Omole, 2011). The difficulties and challenges of managing workforce diversity in Nigeria have taken some toll on most business organizations in the country. For instance, in a recent study carried out among the employees of selected five conglomerates in Lagos with regards to the impact of workforce diversity on the quality of management and overall corporate performance. Ogunseye, Fatile, & Treasure (2010) found that 69.9% of the top-flight female executives who left the companies did so in their response to their being discriminated against in promotion to manager cadres on grounds that they were women or married couples. The study also found that the inability to manage this diversity case had ultimately had negative impact on the overall organizational effectiveness and profitability of the conglomerates for five years running. It is against these backdrops that this study x-rays the effect of workforce diversity on the competitiveness of Nigerian bottling company in South-East, Nigeria.

### **Statement of the Problem**

After reviewing the literature, certain gaps were identified which forms the bases for this study. One of such gaps was aptly captured by Harrison and Klein (2007: 1199) who emphasize that the empirical evidence regarding the performance (and thus competitiveness) effects of workforce diversity is "weak, inconsistent or both". This statement remains to a large extent valid. Indeed, findings are still quite inconclusive and often difficult to interpret due to methodological and/or data limitations. The empirical literatures which have been reviewed in this study lay credence to this position, as the results of the studies show conflicting outcomes.

### **Objectives of the Study**

The broad objective of the study was to assess the effect of workforce diversity on the competitiveness of Nigerian bottling company in South-East, Nigeria. The specific objectives of the study were to:

- i. Determine the nature of relationship between ethnicity and innovation.
- ii. Investigate the nature of the relationship between age diversity and adaption to changes.

### **Research Questions**

The study answered the following questions which were offshoots of the research objectives:

- i. What is the nature of relationship between ethnicity and innovation?
- ii. What nature of relationship exists between age diversity and adaption to changes?

### **Hypotheses**

In line with the objectives and the research questions, the following hypotheses were tested in the study:

- i. There is no significant positive relationship between ethnicity and innovation.
- ii. Age diversity has no significant positive relationship with adaption to changes.

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

### **Concept of Workforce Diversity**

The workforce is defined as the totality of the people working in an organization (Hornby 2005). Examining the meaning of diversity throws up a lot of definitions. On one hand, diversity can refer to outwardly visible differences, and it may be used to describe unseen differences as well (Vanessa, 2011). Diversity may be used to group all differences, such as Williams & Reilly's (1998) predilection for diversity existing "in a group when individuals use any number of different attributes to tell themselves that another member is different" (Phillips & Thomas-Hunt, 2007). Diversity can refer to the given categories into which individuals fit at birth such as race, ethnicity, class, nationality and gender, or it may refer to the voluntary categories that individuals adopt over time (Albelda, Drago & Shulman, 2010).

Further, diversity may be grouped more specifically in terms of different varieties of diversity, such as social category diversity, informational diversity, cultural diversity, and value diversity. First, "social category diversity refers to explicit differences among group members in social category membership, such as race, gender, and ethnicity" (Jehn, Northcraft & Neale, 1999: 745). The second variety, informational diversity, will likely exist in a group of members with varied educational backgrounds, work experience, training, and expertise, leading to "differences in knowledge bases and perspectives" for the group (Jehn et al., 1999: 743). Further defined, informational diversity "captures the extent to which a group is characterized by individuals who bring differing information, opinions, and perspectives to the group" (Phillips & Thomas-Hunt, 2007: 38). Cultural diversity refers to the diversity that results from the presence of a variety of cultures, given individuals from the same culture will "share basic values and beliefs" and form an identity based on their culture (Stahl, Maznevski, Voigt & Jonsen, 2010: 691). Lastly, value diversity "occurs when members of a workgroup differ in terms of what they think the group's real task, goal, target, or mission should be" (Jehn et al., 1999: 745).

While diversity is often viewed in terms of surface-level social categorizations such as race, age, ethnicity, sexual orientation, and gender (Gardenswartz & Rowe, 1994; Carr-Ruffino, 2005), a more encompassing view of diversity will include the intangible aspects of diversity

brought on by informational, cultural, and value diversity. These intangible aspects include education, values, beliefs, norms, mental models, and dispositional variables (Vanessa, 2011).

Workforce diversity is defined by Kreitner & Kinichi (2004) as the multitude of the individual differences and similarities that exist among the people working in an organization. This definition is chosen because it underscores three important issues about managing workforce diversity, namely that there are many different dimensions or components of workforce diversity.

This implies that workforce diversity pertains to everybody in the organization. It is not an issue of demographic characteristics such as age, race, or gender (Thomas, 2006). In other words, it pertains to the host of the individual differences and similarities that make all the workers in the organization unique and different from the others. In other words, workforce diversity is not synonymous with the differences of the workers. Rather, it encompasses both differences and similarities (Ogbo & Kifordu, 2014). This means that managing workforce diversity entails dealing with both simultaneously (Thomas, 2006). Thus, workforce diversity includes the collective mixture of differences and similarities of the workers. Dealing with workforce diversity requires managers to integrate the collective differences and similarities. Both of them have to be properly examined, determined and established (Thomas, 2006) cited in (Ogbo & Kifordu, 2014).

### **Dimensions of Diversity**

At the organizational level, diversity has been compared to an onion, which has layers that once peeled away reveals the core by Cardens, Wartz & Rowe (1994). These layers according to these authors are: organizational dimensions, external dimensions, internal dimensions and personality. Likened to an onion, the organizational dimensional represents the outer most layer and consists of characteristics such as management status, union affiliation, work location, seniority, divisions, departments, work content and functional level classification. These layers can be influenced by management staff and employees of an organization.

The external dimension represents characteristics that deal with the choices of an individual. An individual has a higher level of control which can be exhibited through: personal religion, educational background, work experience, marital status, economic status culture and geographic location. Carden, Wartz & Rowe (1994), refer to these personal control dimensions as the sources of prejudice and discrimination.

The internal dimensions refer to characteristics that are God given or come at birth. These are: age, race, ethnicity, sex and physical features. Personality is the inner content of diversity. Personality refers to the traits and stable characteristics of an individual which are consistent in the behaviour of an individual in a given situation over time (Winstanley, 2006). Sullivan (2004) defines personality as an important aspect of our identity which is a constellation of attitudes, needs traits, feelings and ways of behaving. A person's personality is developed over time, but once formed it usually remains firmly constant throughout a person's life.

### **Demographic Workforce Diversity**

The Demographic Workforce diversity has to do with the differences and similarities of such factors as sex, marital status, age, educational qualifications, status and tenure. Sex in discussing similarities and differences in demographic Workforce diversity is along the lines of male and female employees (Caroll, 2011). According to the Chartered Institute of Personnel and Development CIPD (2001), in the brewing industry, there are more females than males owing to

orientations, interest and values in societies. Evidence is abounding in the jobs that are held by women such as the clerical jobs, typesetters, people working in the canteens and the medical centers. Even in the professions that were formerly reserved for men like Production, Engineering, Security, Bottling and Physical Distribution, women are now quite at home because trend and times have come into play (CIPD, 2001). Other variables such as marital status, age, educational qualification, status and work duration/tenure are attributes that demographic values extremely while considering demographic Workforce diversity issues (Wheelen & Hunger, 2008).

### **Socio Cultural Workforce Diversity**

The socio cultural workforce diversity has to do with the differences and similarities in the social attitudes, beliefs and values. Managers of various enterprises have been criticized for not being responsive to the social attitudes, beliefs, and values of particular individuals, groups, or societies. But attitudes and values are different for workers and employers, rich and poor people, college students and alumni, accountants and engineers, Eastern and Western Nigerians (Kifordu, 2014). This variety of values makes it difficult for managers to design an environment conducive to performance and satisfaction. It is even more difficult to respond to these forces when they are outside the enterprise. Yet managers have no choice but to take them into account in their decision making (Koontz, O'Donnell & Weihrich, 2012).

### **Ethnicity Diversity**

The growth of a multicultural workforce was the focus of the 90's and is gaining more momentum into the new era (Zgourides, Johnson & Watson, 2002; Milliken & Martins, 1996; Nemetz & Christensen, 1996). Along with the increase in diversity has been an increase in the use of work teams in general, with intention of utilizing greater participation and synergy to improve and increase both employee satisfaction and business performance. Even though the nature of workforce composition is rapidly becoming more mixed in terms of gender, age, ethnicity, parallel interest has been increasing about the impact of such diversity in our educational institutions (Zgourides et al., 2002).

Zgourides et al. (2002) are of the view that the differences in cultural characteristics were predictive of team scores, which can be interpreted as the advantage of having ethnically different views for team problem-solving resulted in increased team performance after the teams learned how to utilize these differences to their benefit. Timmermans, Ostergaard, & Kristinsson (2011) found that innovation is an interactive process that often involves communication and interaction among employees in a firm and draws on their different qualities from all levels of the organization. Diversity in ascribed characteristics, such as ethnic background, nationality, gender, and age can have negative affective consequences for the firm. Members of the minority group can experience less job satisfaction, lack of commitment, problems with identity, perceived discrimination, etc. (Timmermans et al., 2011; Milliken & Martins, 1996; Harrison & Klein, 2007). However, when minority group grows, some of the problems disappear. According to Timmermans et al., (2011) study, ethnicity can be used as a proxy for cultural background and diversity in ethnicity can be expected to be positive for innovative performance, since it broadens the viewpoints and perspectives in the firm (Richard, 2000). Moreover, based on Timmermans et al. (2011) study, some levels of diversity in ethnicity might be positive associated with innovation, high degree of diversity in ethnicity might be negative since it can create conflict and cliques due to social categorization (Dahlin, 2005).

### **Age Diversity**

Growing age diversity has become part of many organizations (Kunze, Boehm & Bruch, 2009). There are two major theories which explain this relationship: the social identity and self-categorization (Anantha & Arokiasamy, 2013). Individuals are suggested to classify themselves into certain groups on the basis of dimensions that are personally relevant for them according to social identity and self-categorization theory (Kunze et al, 2009; Tajfel & Turner, 1986). As a result, individuals tend to favour members of their own group at the expenses of the other groups, against which they may discriminate. Consequently, if the employees' age or generational belonging is regarded as a relevant criterion for distinction, a differentiation between age groups within an organization may emerge, fostering emotional conflicts and age-based discrimination between the age groups (Kunze et al., 2009). Gelner & Stephen (2009) summarizes that age heterogeneity can negatively affect productivity concerns differences in the values in and preferences of distinct age groups. It has been shown that productivity-diminishing conflicts are particularly frequent in the presence of "generation gaps" (Gelner & Stephen, 2009; Lau, 2005; Smith, 2001).

### **Firm's Competitiveness**

In today's turbulent economic environment, competitiveness has become more important than ever for a firm's survival and success (Akben-Selcuk, 2016). Although firm competitiveness is a very popular term among practitioners and academicians, there is no agreement on its meaning.

The term "firm's competitiveness" has been defined in academic literature in various ways. Porter (1990) defines competitiveness as the ability of a given firm to successfully compete in a given business environment. Lall (2001) defines firm competitiveness as the ability of a firm to do better than benchmark companies in terms of profitability, sales, or market share. Similarly, Buckley, Pass & Prescott (1998) consider competitiveness to be synonymous with a firm's long-run profit performance, its ability to compensate employees and generate superior returns for shareholders. The Aldington Report (1985) summarizes their definition of firm's competitiveness this way: "A firm is competitive if it can produce products and services of superior quality and lower costs than its domestic and international competitors. Competitiveness is synonymous with a firm's long-run profit performance and its ability to compensate its employees and provide superior returns to its owners". This suggests that measurement of a company's "competitiveness" should incorporate quantitative measures of costs, prices and profitability, and qualitative indicators of non-price factors, specifically quality, if the definition is to be satisfied (Buckley, Pass & Prescott 1998). A parallel approach is taken by the European Management Forum, which defines competitiveness as "the immediate and future ability of, and opportunities for, entrepreneurs to design, produce and market goods worldwide whose price and non-price qualities form a more attractive package than those of foreign and domestic competitors" (European Management Forum 1984.) Depperu & Cerrato (2005) propose a matrix framework to define competitiveness based on two dimensions. The first dimension is related to the way the term is intended. In other words, competitiveness could either be considered as a driver of firm performance or as an outcome variable. The second dimension called "approach" distinguishes between static and dynamic analysis of competitiveness.

Just as there are many definitions of "firm's competitiveness", and no one definition is adjudged as the best above others, in the same manner, there is an avalanche of variables which extant literature proposes as the measurement of firm's competitiveness. The variables encompass both quantitative and qualitative indicators. For the purpose of this study, the

following variables namely: workforce innovativeness (Schmuck, 2010), adaption to changes (Schmuck, 2010), adequately educated workforce (Lalinsky, 2013) and labour productivity (Lalinsky, 2013) were used for proxies of competitiveness.

### **Theoretical Framework.**

#### **Blau's Theory of Heterogeneity**

Blau (1977) argue in his theory of heterogeneity that firms with different levels of cultural diversity experience dissimilar dynamics and organizational outcomes. Within culturally homogeneous groups, members will tend to communicate with one another more often and in a greater variety of ways resulting in in-group attachments and shared perceptions. This enhances group cohesion and subsequent organizational outcomes. An important but ignored topic of study in the research on group diversity is the basis for work group formation. According to (Blau, 1977), many organizational groups, such as functional departments, may be experiencing greater gender and culture diversity as the increasing diversity of the workforce brings a more diverse set of workers to organizations. However, the inflow of diverse workers does not necessarily mean that all organizational groups will assemble in a diverse way. Blau's, (1977) discussion of group heterogeneity and social structure may be instructive. On the one hand, Blau asserts that similarities on one nominal parameter (e.g., race) will promote social associations. On the other hand, he maintains that people will associate not only with members of their own groups but also with members of other groups.

#### **Empirical Review**

Abdel (2012) carried out a study that examined the effects of age, gender, and educational backgrounds of employees on the performance of Egyptian pharmaceutical companies. . In the study titled “The Effects of Cross-Cultural Workforce Diversity on Employee Performance in Egyptian Pharmaceutical Organisation”, Abdel employed self-administered questionnaire to collect data from five (5) top most pharmaceutical companies in Egypt. The study used Multiple Regression Analysis to test the three hypotheses he earlier on put forward in the study and made some startling findings. Firstly, only two variables gender and educational background were found to be significant in explaining the variance in employee or organisational performance. Two and surprisingly, age was found to have no significant effect whatsoever on the performance of an employee or the organisation. The researcher at the end recommended that managers in Egypt should begin to pay greater attention to the issue of diversity management if they would want their organisations to compete favourably in the present globalizing world market of competing pharmaceutical products.

Dike (2013) had the topic: “The impact of Workforce diversity on organizations” as the focal point of her thesis. The broad objective of the study was to explore how companies manage workforce diversity and its consequences to the company's existence as well as examine how companies deal with challenges that come with employees from diverse cultural backgrounds. Data for the study were gathered from a sample of five companies located in Finland and Ghana. The study applied non-standardized research methods to test its hypotheses. The result shows that Workforce diversity plays an effective role in some companies. However inadequate mentoring and guidance could cause low productivity to a company. The research emphasized on the implications management should be mindful of in order to build a healthy working environment within the circles of Workforce diversity. More so, the research suggested that

managers have a more positive and proper perception regarding the implementation of Workforce diversity.

Ogbo, Kifordu & Ukpere (2014) investigates the effect of Workforce Diversity on Organizational Performance of Selected Firms in Nigeria. The broad objective of the study was to determine whether workforce diversity has a positive influence on customer related issues. The research made use of secondary data, oral interview and content analysis. The population was made up of all the staff of selected three brewing companies namely Nigerian Breweries limited, 9th mile in Enugu, Guinness Breweries Plc and Bendel Breweries Plc in Benin. The population size was 1200 in the ratio of 0.5, 0.4 and 0.1 respectively. Taro Yamane's formula was used to get a sample size of 300. The data analysis made use of theoretical analysis and percentages. Findings revealed that workforce diversity has a positive effect on customer related issues in an organization. The study concluded that workforce diversity leads to improved organizational performance as a result of the broad based nature and the specialization it brings on board. The study recommended that diversity managers should endeavour to enhance organizational performance, the effectiveness and corporate profitability aspects of their organization, by effectively using the educational enforcement of diversity goals and exposure of people to the aspect of managing diversity by ensuring that appropriate guides to thinking are done to formulate policies on diversity management.

Anthony & Solomon (2014) examined the impact of workforce diversity on organisational effectiveness in the Nigerian brewery industry. The study applied survey research method to collect data from selected brewery companies in South-south region of Nigeria. Later on, they used both Linear Regression Analysis and Correlation Analysis to test the three hypotheses they earlier on put forward in the study to determine the relationship between such separate individual diversity variables as gender, ethnicity, and culture, on one hand, and organisational effectiveness based innovation and creativity, on the other hand. At the end, the study found that gender, ethnicity and cultural diversities are significantly correlated with innovation and creativity indices of organisational effectiveness. Finally, it is the recommendation of the study that brewery companies in Nigeria should strive to develop enough crop of diversity managers in their employment who would be saddled at all times with the responsibility of ensuring that organisational effectiveness including innovation and creativity is maintained.

### **3. METHODOLOGY**

The study adopted descriptive research design. The data used for this research were obtained specifically from two sources namely: primary and secondary sources. The population of the study was made up of 816 staff of Nigerian Bottling Company (NBC) in South East, Nigeria. NBC has two plant locations in South East, Nigeria Enugu & Owerri. Sample size was determined using Godden, (2004) mathematical formula. The key data collection instrument for the study was the questionnaire, which was drawn for easy comprehension and to elicit factual as well as interpretive information. The research instrument was subjected to content validity test.

The reliability of the research instrument was ascertained through internal consistency method which makes use of Cronbach alpha coefficient as a test statistic for measuring reliability of research instruments. The completed questionnaire forms were collated, coded and subsequently analyzed using both descriptive and inferential statistics. In view of this, data obtained were presented in tables and percentages. The two hypotheses were tested using Pearson Product moment correlation test.

**4. DATA PRESENTATION AND ANALYSES**

Both qualitative and quantitative methods of data analyses were employed in analysing the data generated through questionnaire. Pearson product moment correlation, which was computed using the aid of Statistical Package for Social Sciences (SPSS), was used to test the hypotheses postulated in the study. The aim was to draw conclusion on the effect of workforce diversity on the competitiveness of Nigerian Bottling Company in South-East Nigeria.

**Table 1: Distribution and Return of Questionnaire**

Total number of questionnaire administered	197
Total number of questionnaire returned	190
Total number of questionnaire not returned	7
Response Rate $\frac{190}{197} \times 100$	97.48%
Non response rate 100% - 97.48%	2.52%
Total (%)	100

**Source: Field Survey, 2019**

Table 1 reveals that out of 197(100%) questionnaire distributed, 190(97.48%) were returned while 7(2.52%) were not returned. The analyses will, therefore, be based on 190 questionnaire returned.

**Data Presentation based on Objectives**

**Table2: The relationship between ethnicity and innovation**

Statements	SA (%)	A (%)	UD (%)	D (%)	SD (%)	Mean	Std. Dev.
A team made up of people from different ethnic groups normally engage in idea generation	79 (42)	62 (33)	26 (14)	17 (9)	6 (3)	4.01	1.09
Having a workforce made up of people from different ethnic backgrounds helps to enhance idea implementation	70 (37)	77 (41)	28 (15)	8 (4)	7 (3)	4.03	1.01
A team of people from different cultural backgrounds help to enhance idea fine-tuning	28 (15)	70 (37)	77 (41)	8 (4)	7 (3)	3.55	0.92
Idea exploration is better enhanced in organizations that have a workforce made up of people from different cultural inclinations	79 (41)	62 (33)	26 (14)	17 (9)	6 (3)	4.01	1.09

**Source: Field Survey, 2019**

The responses in Table 4.2 reveal that 79(42%) and 62(33%) of the respondents strongly agreed and agreed respectively that a team made up of people from different ethnic groups normally engage in idea generation. In contrast, 6(3%) and 17(9%) of the respondents strongly disagreed and disagreed respectively that a team made up of people from different ethnic groups normally engage in idea generation. While 26(14%) were undecided. With a mean response score of  $4.01 \pm 1.09$ , the majority of the respondents were in agreement with the statement that a team made up of people from different ethnic groups normally engage in idea generation.

70(37%) and 77(41%) of the respondents strongly agreed and agreed respectively that having a workforce made up of people from different ethnic backgrounds helps to enhance idea implementation. While 8(4%) and 8(4%) respondents strongly disagreed and disagreed respectively that having a workforce made up of people from different ethnic backgrounds helps to enhance idea implementation. 28(15%) of the respondents were undecided to the statement. The mean response rate of  $4.03 \pm 1.01$  shows that majority of the participants were of the opinion that having a workforce made up of people from different ethnic backgrounds helps to enhance idea implementation.

28(15%) and 70(37%) of the respondents strongly agreed and agreed respectively that a team of people from different cultural backgrounds help to enhance idea fine-tuning. 7(3%) and 8(4%) being an insignificant percentage of the respondents strongly disagreed and disagreed respectively that a team of people from different cultural backgrounds help to enhance idea fine-tuning. While 77(41%) of the respondents were undecided to the statement. With a mean response score of  $3.55 \pm 0.92$ , the majority of the respondents were in agreement that a team of people from different cultural backgrounds help to enhance idea fine-tuning.

79(41%) and 62(33%) of the respondents strongly agreed and agreed respectively that idea exploration is better enhanced in organizations that have a workforce made up of people from different cultural inclinations, while a minority of 6(3%) and 17(9%) of the respondents strongly disagreed and disagreed respectively that idea exploration is better enhanced in organizations that have a workforce made up of people from different cultural inclinations, and 26(14%) of the respondents were undecided. The mean response rate of  $4.01 \pm 1.09$  indicates that majority of the respondents were of the opinion that idea exploration is better enhanced in organizations that have a workforce made up of people from different cultural inclinations.

**Table 3: The nature of the relationship between age diversity and adaption to changes**

Statements	SA (%)	A (%)	UD (%)	D (%)	SD (%)	Mean	Std. Dev.
A work-team of people of different age groups is quicker in taking decisions to modify a process.	28 (15)	70 (37)	77 (41)	7 (3)	8 (4)	3.54	0.93
Younger people adapt easily to changes than older people	79 (41)	62 (33)	26 (14)	17 (9)	6 (3)	4.01	1.09
Older people have more experience and so are quicker to adapt to changes	29 (15)	70 (37)	78 (41)	10 (5)	3 (2)	3.59	0.92

A mixture of older and younger people in a workforce enables a firm to take quicker and more informed decisions when adapting to changes in the business environment	44 (23)	59 (31)	62 (33)	16 (8)	9 (5)	4.01	0.86
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**Source: Field Survey, 2019**

The responses in table 4.3 reveal that 28(15%) and 70(37%) of the respondents strongly agreed and agreed respectively that a work-team of people of different age groups is quicker in taking decisions to modify a process, 8(4%) and 7(3%) of the respondents strongly disagreed and disagreed respectively that a work-team of people of different age groups is quicker in taking decisions to modify a process, while 77(41%) of the respondents were undecided to the statement. The mean response rate of  $3.54 \pm 0.93$  indicates that majority of the respondents were in agreement that a work-team of people of different age groups is quicker in taking decisions to modify a process.

79(41%) and 62(33%) of the respondents strongly agreed and agreed respectively that younger people adapt easily to changes than older people, while a minority of 6(3%) and 17(9%) of the respondents strongly disagreed and disagreed respectively that younger people adapt easily to changes than older people, and 26(14%) of the respondents were undecided. The mean response rate of  $4.01 \pm 1.09$  indicates that majority of the respondents were of the opinion that younger people adapt easily to changes than older people.

29(15%) and 70(37%) of the respondents strongly agreed and agreed respectively that older people have more experience and so are quicker to adapt to changes, 3 (2%) while a minority of 10(5%) of the respondents strongly disagreed and disagreed respectively that older people have more experience and so are quicker to adapt to changes, and 78(41%) of the respondents were undecided about the statement. With the mean response rate of  $3.59 \pm 0.92$  there is an indication that more of the respondents are in agreement that older people have more experience and so are quicker to adapt to changes.

44(23%) and 59(31%) of the respondents strongly agreed and agreed that a mixture of older and younger people in a workforce enables a firm to take quicker and more informed decisions when adapting to changes in the business environment, and 9(5%) and 16(8%) of the respondents strongly disagreed and disagreed that a mixture of older and younger people in a workforce enables a firm to take quicker and more informed decisions when adapting to changes in the business environment, while 62(33%) of the respondents were undecided. The mean response rate of  $4.01 \pm 0.86$  indicates that majority of the respondents agreed that a mixture of older and younger people in a workforce enables a firm to take quicker and more informed decisions when adapting to changes in the business environment.

## **Test of Hypotheses**

### **Hypothesis One**

H<sub>0</sub>: There is no significant positive relationship between ethnic diversity and workforce innovativeness.

**Table 5: Descriptive Statistics of ethnic diversity and workforce innovativeness**

	Mean	Std. Deviation	N
Ethnic diversity	1.8349	1.16133	190
Workforce innovativeness	1.9173	1.26181	190

**Table 6: Correlations of Ethnic diversity and Workforce innovativeness**

		Ethnic diversity	Workforce innovativeness
Ethnic diversity	Pearson Correlation	1	.835**
	Sig. (2-tailed)		.000
	N	190	190
Workforce innovativeness	Pearson Correlation	.835**	1
	Sig. (2-tailed)	.000	
	N	190	190

Source: SPSS Version 18.00.

**Interpretation**

Table 6 shows the descriptive statistics of the ethnic diversity and workforce innovativeness with a mean response of 1.8349 and std. deviation of 1.16133 for ethnic diversity and a mean response of 1.9173 and std. deviation of 1.26181 for workforce innovativeness. The standard deviation values show that the difference in the two scores is quite small; which suggests that there is about the same variability of data points between the dependent and independent variables.

Table 6 is the Pearson correlation coefficient for ethnic diversity and workforce innovativeness. The correlation coefficient shows 0.835. This value indicates that correlation is significant at 0.05 level (2tailed) and implies that there is a significant positive relationship between ethnic diversity and workforce innovativeness ( $r = .835$ ). The computed correlations coefficient is greater than the table value of  $r = .198$  with 189 degrees of freedom ( $df = n-2$ ) at alpha level for a two-tailed test ( $r = .835, p < .05$ ). However, since the computed  $r = .835$ , is greater than the table value of  $.198$  we reject the null hypothesis and conclude that there is a

significant positive relationship between ethnic diversity and workforce innovativeness ( $r = .835$ ,  $p < .05$ ) at 5% level of significance.

**Hypothesis Two**

H<sub>0</sub>: Age diversity has no significant positive relationship with adaption to changes.

**Table 7: Descriptive Statistics of Age diversity and adaption to changes**

	Mean	Std. Deviation	N
Age diversity	1.8261	1.16043	190
Adaption to changes	1.9065	1.26713	190

**Table 8: Correlations of Age diversity and Adaption to changes**

		Age diversity	Adaption to changes
Age diversity	Pearson Correlation	1	.855**
	Sig. (2-tailed)		.000
	N	190	190
Adaption to changes	Pearson Correlation	.855**	1
	Sig. (2-tailed)	.000	
	N	190	190

Source: SPSS Version 18.00

**Interpretation**

Table 7 shows the descriptive statistics of the age diversity and adaption to changes with a mean response of 1.8261 and std. deviation of 1.16043 for age diversity and a mean response of 1.9065 and std. deviation of 1.26713 for adaption to changes. By careful observation of the standard deviation values, there is not much difference in terms of the standard deviation scores. This implies that there is about the same variability of data points between the dependent and independent variables.

Table 8 is the Pearson correlation coefficient for age diversity and adaption to changes. The correlation coefficient shows 0.855. This value indicates that correlation is significant at 0.05 level (2tailed) and implies that there is a significant positive relationship between age diversity and adaption to changes ( $r = .855$ ). The computed correlations coefficient is greater than the table value of  $r = .195$  with 188 degrees of freedom ( $df = n-2$ ) at alpha level for a two-tailed test ( $r = .855$ ,  $p < .05$ ). However, since the computed  $r = .855$ , is greater than the table value of  $.195$  we reject the null hypothesis and conclude that there is a significant positive

relationship between age diversity and adaption to changes ( $r = .855, p < .05$ ) at 5% level of significance.

### **Discussion of Results**

The first objective of this study was to determine the relationship between ethnic diversity and workforce innovativeness. The data from table 2; as well as the result from table 7 ( $r = 0.835, p = 0.000$ ) showed that ethnic diversity has a significant positive relationship with workforce innovativeness. This result lend credence with Richards (2000) who posits that ethnicity diversity can be expected to be positive for innovative performance, since it broadens the viewpoints and perspectives in the firm. It also aligns with Darwin & Palanisamy (2015) who found that there is a significant positive relationship between ethnic diversity and employee performance.

The second objective of this study was to investigate the nature of the relationship between age diversity and adaption to changes. The data from table 3, as well as the result from table 9 ( $r = 0.855, p = 0.000$ ) showed that there is a significant positive relationship between age diversity and adaption to changes. This finding agrees with Gelner & Stephen (2009) who opines that age heterogeneity may provide some potential benefits when collaboration in a group enables individuals to be more productive than when working on their own. The finding on the other hand disagrees with Garnero, Kampelmann, & Rycx, (2013), who found that age diversity has a significant negative influence on productivity.

### **5. FINDINGS**

The findings of this study include the following:

- i. There was a significant positive relationship between ethnic diversity and workforce innovativeness ( $r = 0.835, p < .05$ ).
- ii. There was a significant positive relationship between age diversity and adaption to changes ( $r = 0.855, p < .05$ ).

### **Conclusion**

Workforce diversity has been identified to lead to improved organizational performance as a result of the broad based nature and the specialization it brings on board. It was on this premise that this study did set out to conceptualize and empirically investigate the effect of workforce diversity on the competitiveness of firms using Nigerian bottling company as a case study. The findings of the study reveal that demographic diversity dimensions of ethnicity and age do have positive relationship with the competitiveness of firms. Based on these findings, the study therefore concludes that workforce diversity when properly managed has a significant positive effect on the competitiveness of firms.

### **Recommendations**

The foregoing findings necessitate the following recommendations:

- i. For firms to foster and promote workforce innovativeness, other things being equal, they need to adopt the culture of recruiting work-teams characterised with ethnicity diversity, to enhance idea generation, idea exploration, fine-tuning and implementation.
- ii. Firms need to some level of age diversity within their workforce to ensure that the proper balance is created to enhance their proper adaptation to changes.

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