Impact of Ethnic Diversity on Team Performance in Federal Health Institutions in South East Nigeria

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Abstract: The objective of this study was to investigate the impact of ethnic diversity on team performance in federal health institutions in South East, Nigeria. Cochran’s formula for calculating sample size was adopted to arrive at 508 respondents. The Nagelkerke R-Squared which can also be econometrically called pseudo R-Squared yielded 0.593. This basically entails that 59.3% of the variations in team performance can be accounted for by ethnic diversity. This further entails that ethnic diversity explains 59.3% changes in team performance. This entails that the explanatory power of the independent variable (ethnic diversity) is high. The study concludes that workers have preconceived overt and implicit preferences on who they would like to work with and therefore, increasing ethnic diversity may result in disunity and lack of cohesion within the workforce. There should be a massive and consistent reorientation by organizations like the National Orientation Agency. Management should encourage social interactions between employees so as to reduce preconceived opinions, stereotypes and prejudices.

Key words: Ethnic diversity, federal, health institutions, team performance

1. Introduction

Diversity is a multi-faceted concept that will continue to evolve as more organizations move towards both working in, and recruiting employees from a global market place. It is argued that this development has led to a perception that diversity is inevitable and fundamental for sustainable organizational performance (Childs, 2015). This belief drives corporate managers to embrace the concept of cultural diversity, its barriers, and benefits. Furthermore, diversity is increasingly recognized and utilized as one of the very important, if not the most important, organizational resources in regards to whether the goal of an organization is to be an employer of choice, to provide excellent customer service, or to maintain a competitive edge (Childs, 2015; Pitts and Jarry, 2012).

Nigeria, a nation with over two hundred and fifty ethnic groups and a population of over one hundred and eighty million persons with over half of that number still in their working age (World Bank, 2010), managers of the Nigeria public health sector are being faced with a critical challenge of the management of ethno-cultural diversity in the work place (Ugwuozor, 2011). According to the 2014 communiqué of the Nigerian national health conference, despite Nigerian's strategic position in Africa, the country is greatly underserved in the health care sphere; the health sector accounts for 7.38% of the Nigerian labor force but the system remains weak as evidenced by lack of coordination, fragmentation of services, dearth of resources, including drug and supplies, inadequate and decaying infrastructure, inequity in resource distribution, and access to care and very deplorable quality of care. From a managerial perspective, the Nigeria public health sector is a large and complex heterogeneous organization.
To effectively accomplish its mission in today’s turbulent business environment, it must engage in similar activities as any other large corporation around the globe. In the same way, a professional civil service system is just one version of another contemporary personnel system based on the merit principle (Ospina, 2006). Nigeria public health sector, no doubt, represents a particular type of employment relationship that, by its very nature, is different from private employment. Nevertheless, from the point of view of organizational theory, a national public bureaucracy, its conditions of employment, and its employees, are all equally subject to the remarkable pressures determining the fate of any complex organization of contemporary times (Ugwuozor, 2011).

All organizations strive for performance, regardless of their size. Small organizations want to get big, big organizations want to get bigger. Indeed, organizations have to grow at least a bit every year in order to accommodate the increased needs that emerge over time. Every organization aims to sustain its existence and meet the needs of highly competitive markets by continuously improving on its performance (Arslan and Staub, 2013). Chen, Silverthorne, and Hung (2006) define organizational performance as the transformation of inputs into outputs for achieving certain outcomes while Ely and Thomas (2011) describe performance as the execution or accomplishment of work, tasks or goals to a certain level of desired satisfaction.

Richard (2010) believes that organizations aiming to expand their market and increase their performance need to give greater attention to relating to a multi-ethnic and multi-cultural workforce. Jehn and Bezrukova (2014) opine that the trend of having different work functions and departments in an organization that have different cultures, adds a strong element of cultural diversity to today’s workgroups in many organizations. For an organization to succeed and have a competitive edge over other firms in the industry, it has to greatly embrace diversity to be able to realize its benefits. Being able to successfully handle workplace diversity issues as well as develop and implement diversity plans, gives an organization several benefits (Stahl, Maznevski, Voigt and Jonsen, 2010).

Considering the above, the management of ethno-cultural diversity as a tool to increase organizational effectiveness cannot be underscored, especially with current changes sweeping across the globe. Jain and Verma (2016) posit that organizations that value diversity will definitely cultivate success and have a future in the dynamic global labor market. Diversity management has become an important issue for both government and private organizations as it brings with it the heterogeneity that needs to be nurtured, cultivated and appreciated as means of increasing organizational performance in the competitive business world. Woods, Borman and Schmidle (2010) describe diversity management as a tool to create a unifying environment based on mutual respect; it is believed that in this environment, employees will be more effective, more creative and therefore, more profitable to the organization. As organizations become more diverse along ethnic lines, it makes sense to pay more attention to how different groups interact with one another at work (Pitts and Jarry, 2012). Opstal (2009) states that it is important for organizations to know how to effectively manage their diverse workforce so that they can maximize the advantages of the diversity while minimizing its disadvantages. When diversity is not managed properly, there will be a potential for difficulty in communication, destructive interpersonal conflicts and higher voluntary employee turnover. Overall, it will be adversarial to organization’s performance, profitability, and needless to mention, reputation (Horwitz and Horwitz, 2007; Joshi and Roh, 2009). The objective of this study was to investigate
the impact of ethnic diversity on team performance in federal health institutions in South East, Nigeria.

2. Literature Review
2.1 Conceptual Framework
2.1.1 Ethnic Diversity
Ethnicity could be understood through the concept of an ethnic group, which is a group of people whose members identify with each other through a common heritage. Ethnicity refers to groups within the larger society that display a unique set of cultural traits. Group members often share a sense of community resulting from some sense of regional or geographic heritage or shared sense of belonging, based on characteristics such as common religion, language, ancestry, national or geographic origin and/or other attribute (Banks, 2011). Ethnic groups are groups with ascribed membership, usually but not always based on claims or myths of common history, ancestry, language, race, religion, culture and territory. While all these variables need not be present before a group is so defined, the important thing is that such a group is classified or categorized as having a common identity that distinguishes it from others. It is this classification by powerful agencies such as state, religious institutions and the intelligentsia such as local ethnic historians that objectifies the ethnic group, often setting in motion processes of self identification or affirmation and recognition by others (Ukiwo, 2005, Banks, 2011).

Ethnic diversity thus refers to differences in people’s ethnic backgrounds. However, Cox (2004) observes that ethnic diversity is more than only differences in people’s appearance; but that it is the differences in people’s inner self, stemming from their ethnic background, that count. This is opined by Bell, Villado, Lukasik, Belau, and Briggs (2011) who argue that someone’s work style is often linked to their ethnic background.

On the other hand ethnocentrism which is sometimes wrongly used to represent ethnicity can be referred to as judging another culture solely by the values and standards of one’s own culture. Ethnocentric individuals judge other groups relative to their own ethnic group or culture, especially with concern for language, behavior, customs and religion. These ethnic distinctions serve to define each ethnicity’s unique cultural identity. Ethnocentrism may be overt or subtle and while it is considered a natural proclivity of human psychology in everyday life, it has developed a generally negative connotation (Cox, 2004).

- **Ethnic Diversity and National Integration, the Nigeria Perspective**
National integration describes a situation in which citizens of a country increasingly see themselves as one people, bound by shared historical experiences and common values, and imbued by the spirit of patriotism and unity, which transcends traditional, primordial diverse tendencies (Jega, 2002). In postcolonial societies like Nigeria, it embodies a strategy of forging unity in diversity, and connotes a striving to be a unified people in a modern, colonially created, nation-state.

National integration has become a major post-independence project, which was perceived to be necessary and critical to national progress and development. It sought to create patriotic citizens out of disparate, often antagonistic groups. Clearly, there is a connection and relationship between the failure of purported efforts at national integration, as evidenced by increased violent political and communal conflicts, and socio-economic instability, which in no small measure, is a constraint to progress and development (Edewor and Aluko, 2007). Plural and sharply divided
societies all over the world attempt to manage their diversities and divisive tendencies through one or combination of policy alternatives in the organization and management of their public services for performance; and Nigeria is not an exception. Often times, these policy alternatives turn out to be delicate arrangements; but when carefully conceived, crafted and practiced, it provides opportunity for centre-seeking and centre-fleeing forces to interact peacefully and co-habit on agreed terms. One of such policy alternatives adopted for the management of the public service in Nigeria for even representation is the Federal Character Principle, which “was borne out of the need to ensure…even spread of government appointments…in all the regions, states and local government councils in the country” (Ayoade, 2000; Abdullah, Boyles and Joham, 2010; Nzeshi, 2012).

2.1.2 Team Performance
Raza, Ishtiaqi, Butt and Newaz (2013) define a team as a pool or collection of individuals who are autonomous in their tasks but have a common goal or share accountability for the overall outcome or consequences. Teamwork refers to a process where employees form functional groups or are grouped into work categories to achieve a given organizational objective (Delarue, Van Hootegem, Procter and Burridge, 2008). A high-performance team can is a group of individuals with precise roles and complementary skills and talents, committed to and aligned with a shared purpose, who constantly show high levels of collaboration and innovation that produce superior results populations (Hoogendoorn and van Praag, 2012).

Mathieu, Maynard, Rapp and Gilson (2008) conceive three subcategories of team performance organizational-level performance; team performance behaviors and outcomes and role-based performance. In the first instance, organizational-level performance, there is a one-to-one link between organizational outcomes and team characteristics. In relation to team performance behaviors and outcomes, the relationship is examined between team performance and cohesion. Role-based results capture the level to which team members display the essential competencies obligatory to perform their jobs (Mathieu et al., 2008). It is the latter that is crucial for the current analysis of the impact of ethnic diversity on team performance and ultimately on organizational performance.

2.2 Theoretical Review
2.2.1 The Social Categorization Theory
The social-categorization theory by Turner (1987), suggests that people belong to many different social groups (e.g. nation, religion, organization, school). It predicts that individuals sort themselves into identity groups based upon salient characteristics and that they act in concert with their categories and favor contexts that affirm group identity (Hogg and Terry, 2010). In consequence, dissimilar individuals are less likely to collaborate with one another compared to similar individuals. In this way, social categorization may disrupt elaboration of task-relevant information because of possible biases towards in-group members and negative biases towards out-group members. (Knippenberg, Kleef and De-Dreu, 2007).

This is a theory of the self, group processes, and social cognition which emerged from research on social identity theory (Turner, 1987). It is concerned with variation in self-categorization in the level, content and meaning of self categories. It focuses on the distinction between personal and social identity. Social-categorization theory seeks to show how the
emergent, higher order processes of group behavior can be explained in terms of a shift in self-perception from self-categorization in terms of personal identity to self-categorization in terms of social identity. Ethnicity of employees may be viewed as a dimension of social category diversity. Thus, employees in an organization may sort themselves in social categories of particular ethnic group. This may influence their group behavior as well as responses to the micro and macroeconomic environment.

The social categorization theory is the most popular theory for explaining diversity. This is so because the theory is basically used to explain overt, explicit or easily identifiable dissimilarity (e.g. age, ethnicity and gender) existing between individuals and reveals association of a particular social category (Knippenberg and Schippers, 2007). Categorization involves the arrangement of persons into groups based on such characteristics as gender, age, race/ethnicity, religion, status or tenure, etc. These classifications become social when a great number of individuals begin to draw similar judgments of individuals based on similar characteristics. The theory predicts that in a work group with outstanding characteristics as age and gender, diversity will work to hinder group practices than add to group positive performance (Wegge, Roth, Kanfer, Neubach, and Schmidt, 2008). From this theory it is assumed that the degree to which an employee identifies him/herself with a social group depends on the specific perspective of the group. This theory posits that people classify themselves and others into familiar categories in order to predict the nature of subsequent interactions. These groupings are used to define the social identity of self and others (Maltbia and Power, 2009).

The focus of the social categorization theory is to identify the social cognitive processes which are the primary causes of in-group (a group which an individual identifies, admires, belongs to and feels loyal to) and out-group (the group which an individual does not want to associate with) formation, and the achievement of group identification (Ferrante and Caldeira, 2016). It also seeks to explain the achievement of group identities which in turn shapes inter and intra group relations, cognitive biases, prejudice, stereotypes attitudes and conflict. Thus, it can be said that there is a possibility that the differences that exist between workgroup members have the tendency of jeopardizing the classification of other individuals as either similar/in-groups or dissimilar/out-group, a categorization that may possibly disrupt group procedure (Knippenberg and Schippers, 2007).

**2.2.2 Ethnic Diversity and Team Performance**

In their article, Van Knippenberg et al. (2004) define diversity as differences between individuals on any attribute that may lead to the perception that another person is different from self. Differences can exist in, for instance; gender, age, ethnicity and functional background. Ethnicity could be better understood through the concept of an ethnic group, which is a group of people whose members identify with each other through a common heritage (Banks, 2011). Applied to a work team, this means that team members belong to different ethnic groups. It is plausible that ethnic diversity within a work team is visible most of the time. When for example a person with African roots works together with someone with European roots, one can easily see their differences in appearance. However, ethnic diversity is more than only differences in people’s appearance; it is also the differences in people’s inner self, stemming from their ethnic background, that count. An example of this is given by Bell et al. (2010) who argue that someone’s work style is often linked to the person’s ethnic background. It is assumed that ethnic diversity within a team brings about its effects in the way team members work...
together and in how they perform. This is the reason why in this study the effect of ethnic diversity on the performance of teams is considered.

3. Methodology
3.1 Research Design
The study made use of descriptive and survey research method. This method permits the collection of data from a relatively few respondents and guarantees the generalization of findings to larger respondents. It is considered appropriate because it deals with large population of people/respondents with different characteristics. The method is also relevant because the data collected was largely quantitative in nature and related to individual attitudes, which could not be observed but could be better tapped through self reports.

3.2 Population of the Study
The target population for this study comprised all the Federal Health Institutions in South East, Nigeria:
1. National Orthopaedic Hospital Enugu
2. University of Nigeria Teaching Hospital Enugu
3. Nnamdi Azikiwe University Teaching Hospital Nnewi, Anambra state
4. Federal Neuropsychiatric Hospital Enugu
5. Federal Teaching Hospital Abakaliki, Ebonyi state
6. Federal Medical Center Owerri, Imo state
7. Federal Medical Center Umuahia, Abia state

Table 3.1: Population Distribution

<table>
<thead>
<tr>
<th>S/NO</th>
<th>HOSPITAL</th>
<th>POPULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>National Orthopedic Hospital Enugu (NOHE)</td>
<td>957</td>
</tr>
<tr>
<td>2.</td>
<td>University of Nigeria Teaching Hospital Enugu (UNTH)</td>
<td>1236</td>
</tr>
<tr>
<td>3.</td>
<td>Nnamdi Azikiwe University Teaching Hospital Nnewi (NAUTH)</td>
<td>1028</td>
</tr>
<tr>
<td>4.</td>
<td>Federal Neuropsychiatric Hospital Enugu(FNHE)</td>
<td>766</td>
</tr>
<tr>
<td>5.</td>
<td>Federal Teaching Hospital Abakaliki, Ebonyi state(FTHA)</td>
<td>925</td>
</tr>
<tr>
<td>6.</td>
<td>Federal Medical Center Umuahia, Abia State(FMCU)</td>
<td>1004</td>
</tr>
<tr>
<td>7.</td>
<td>Federal Medical Center Owerri, Imo State(FMCO)</td>
<td>823</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>6739</td>
</tr>
</tbody>
</table>

Source: Hospital Personnel Records (2018)

3.3 Sample Size Determination
Specifically in order to determine the sample size in terms of the actual respondents; Cochran’s formula for calculating sample size was adopted. He proposed a correction formula to calculate the final sample size. The formula is given below:
\[ n = \frac{n_0}{1 + \frac{(n_0 - 1)}{N}} \]  \hspace{1cm} (3.1)

Where:

- \( n_0 \) = Representative sample for proportions
- \( n \) = Sample Size
- \( N \) = Population Size
- \( e \) = Allowable sampling error taken at 5\% = 0.05
- \( p \) = Proportion of success in the population from pilot survey = 0.50
- \( q \) = Proportion of failure in the population from pilot survey = 0.50

However:

\[ n_0 = \frac{Z^2 pq}{e^2} \]  \hspace{1cm} (3.2)

Where; \( Z \) is the abscissa of the normal curve (1.96), \( q \) is 1-\( p \) and \( e \) is the allowable sample error (0.05). Substituting these values into equation 3.2, we have:

\[ n_0 = \frac{(1.96)^2(0.5)(0.5)}{(0.05)^2} = 384 \]  \hspace{1cm} (3.3)

Substituting \( n_0 = 384 \) from equation 3.3 into equation 3.1, we have:

\[ n = \frac{384}{1 + \frac{(384 - 1)}{6739}} \]

\[ n = \frac{384}{1 + 0.0568333581} \]

\[ n = \frac{384}{1.0568333581} = 363 \]

Having applied the Cochran sample size derivation statistic, the value derived was three hundred and sixty three (363). In proportion to the population size, this sample size is adjudged to be small. To increase the sample size, we apply the scale up procedure which is derived adopting the following process:
Let 10% of 363 represent the inaccessible category of the respondents:

\[ \frac{10}{100} \times \frac{363}{1} = 36.3 \]

Let 30% of 363 represent the non-responsive category:

\[ \frac{30}{100} \times \frac{363}{1} = 108.9 \]

Sample Size = 363 + 36.3 + 108.9 = 508.2 which by approximation is 508.

The sample size determination analysis reveals that the sample to be used in the study is five hundred and eight (508) respondents.

**3.4 Sampling Technique**

A stratified sampling method was adopted so as to give a fair representation of the selected organizations. In other words, this is to ensure that the sample is representative of each of the medical firms in South-East Nigeria. This makes the proportion of the sample from each firm to conform to the pattern of the population and also increase accuracy of the study.

The Bowley’s proportional allocation formula was used and is given as:

\[ n_h = n \frac{N_h}{N} \]

Where:

- \( n_h \) = Number of units allocated to each firm/staff category.
- \( N_h \) = Number of employees in each firm/staff stratum in the population
- \( n \) = Total sample size
- \( N \) = The total population size under study

Therefore, the following were obtained.

1. **NOHE**
   \[ 957 \times 508 = \frac{72}{6739} \]
2. **UNTH**
   \[ 1236 \times 508 = \frac{93}{6739} \]
3. **NAUTH**
   \[ 1028 \times 508 = \frac{77}{6739} \]
4. FNHE \[\frac{766 \times 508}{6739} = 58\]
5. FTHA \[\frac{925 \times 508}{6739} = 70\]
6. FMCU \[\frac{1004 \times 508}{6739} = 76\]
7. FMCO \[\frac{823 \times 508}{6739} = 62\]

Table 3.2 Sample Size Allocation

<table>
<thead>
<tr>
<th>S/No</th>
<th>Organization</th>
<th>Population</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>NOHE</td>
<td>957</td>
<td>72</td>
</tr>
<tr>
<td>2</td>
<td>UNTH</td>
<td>1236</td>
<td>93</td>
</tr>
<tr>
<td>3</td>
<td>NAUTH</td>
<td>1028</td>
<td>77</td>
</tr>
<tr>
<td>4</td>
<td>FNHE</td>
<td>766</td>
<td>58</td>
</tr>
<tr>
<td>5</td>
<td>FTHA</td>
<td>925</td>
<td>70</td>
</tr>
<tr>
<td>6</td>
<td>FMCU</td>
<td>1004</td>
<td>76</td>
</tr>
<tr>
<td>7</td>
<td>FMCO</td>
<td>823</td>
<td>62</td>
</tr>
<tr>
<td>Total</td>
<td>6739</td>
<td>508</td>
<td></td>
</tr>
</tbody>
</table>

3.5 Description of the Research Instruments
The instruments for data collection were structured questionnaire and oral interview guide. There are 20 questions in the questionnaire drawn in line with the research questions. The questionnaire consists of section A and B. Section A contains items to elicit responses from research subjects about their demographic, biographical characteristics and their employer organizations while Section B consists of measures of performance and ethno-cultural attributes. The measurement instruments for each of the ethno-cultural diversity variables for organizational performance are developed and designed in a 5-point Likert Scale of Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D), Strongly Disagree (SD) with their corresponding weights of 5, 4, 3, 2 and 1 respectively.
4. Data Presentation and Analysis

4.1 Questionnaire Return Rate

A total of five hundred and eight (508) copies of the questionnaire were distributed to the targeted respondents. Four hundred and ninety two (492) copies were returned which shows that sixteen (16) copies were not returned. The table below is a display of the statistics of distributed and returned questionnaire and a calculation of their corresponding percentages. This is shown in Table 4.1 below.

<table>
<thead>
<tr>
<th>ORGANIZATION</th>
<th>QUESTIONNAIRE DISTRIBUTED</th>
<th>QUESTIONNAIRE RETURNED</th>
<th>QUESTIONNAIRE RETURN PERCENTAGE (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOHE</td>
<td>72</td>
<td>70</td>
<td>99%</td>
</tr>
<tr>
<td>UNTH</td>
<td>93</td>
<td>91</td>
<td>98%</td>
</tr>
<tr>
<td>NAUTH</td>
<td>77</td>
<td>73</td>
<td>94%</td>
</tr>
<tr>
<td>FNHE</td>
<td>58</td>
<td>57</td>
<td>98%</td>
</tr>
<tr>
<td>FTHA</td>
<td>70</td>
<td>67</td>
<td>96%</td>
</tr>
<tr>
<td>FMCU</td>
<td>76</td>
<td>75</td>
<td>99%</td>
</tr>
<tr>
<td>FMCO</td>
<td>62</td>
<td>59</td>
<td>95%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>508</strong></td>
<td><strong>492</strong></td>
<td><strong>Average: 97%</strong></td>
</tr>
</tbody>
</table>

Table 4.1 reveals the number of questionnaires distributed to the sampled organizations and their corresponding return rate. It can be observed that the return rates are high and hence acceptable having the highest return rate as 99% and the lowest at 94% and the average return rate as 97%.

**Note:** The return rate was calculated with the formula given as:

\[ QRR = \frac{QR}{QD} \times 100 \]

Where:

QRR = Questionnaire Return Rate

QR = Questionnaire Returned

QD = Questionnaire Distributed
4.2. Descriptive Analysis of Data and Interpretation
This section presents data retrieved from the respondents. Table 4.2 presents the percentage distribution of the responses as follows: The highest percentage rate was 1478(75.10%) in the disagreement category, 477(24.23%) are in the agreement category, while 13(0.67%) are undecided. This reveals that majority of the respondents do not agree that ethnic diversity enhances team performance in the selected organizations.

Table 4.2: Effect of Ethnic Diversity on Team Performance

<table>
<thead>
<tr>
<th>S/No</th>
<th>Options</th>
<th>SD</th>
<th>D</th>
<th>A</th>
<th>SA</th>
<th>U</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Different ethnic background brings diverse experience and it enhances team performance</td>
<td>189</td>
<td>161</td>
<td>56</td>
<td>81</td>
<td>5</td>
<td>492</td>
</tr>
<tr>
<td>2</td>
<td>Working with colleagues from diverse tribes contributes to our problem solving and decision making ability.</td>
<td>201</td>
<td>164</td>
<td>71</td>
<td>52</td>
<td>4</td>
<td>492</td>
</tr>
<tr>
<td>3</td>
<td>The different tribes create a conducive and balanced working atmosphere and this promotes team commitment.</td>
<td>198</td>
<td>202</td>
<td>43</td>
<td>49</td>
<td>-</td>
<td>492</td>
</tr>
<tr>
<td>4</td>
<td>There is trust among employees from different ethnic groups leading to improvement in team productivity.</td>
<td>184</td>
<td>179</td>
<td>63</td>
<td>62</td>
<td>4</td>
<td>492</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>1478(75.10%)</strong></td>
<td><strong>477(24.23%)</strong></td>
<td><strong>13(0.67%)</strong></td>
<td><strong>1968</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


4.3 Test of Hypothesis
Ha: Ethnic diversity significantly affects team performance.
Ho: Ethnic diversity does not significantly affect team performance.

Presentation and Analysis of Result
Table 4.3: Logistic Regression Output

<table>
<thead>
<tr>
<th>Observed</th>
<th>Predicted</th>
<th>Team Performance</th>
<th>Percentage Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Disagree</td>
<td>Agree</td>
</tr>
<tr>
<td>Step 0</td>
<td>Team Performance</td>
<td>0</td>
<td>452</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>0</td>
<td>40</td>
</tr>
<tr>
<td>Overall Percentage</td>
<td></td>
<td></td>
<td>91.9</td>
</tr>
</tbody>
</table>

a. Constant is included in the model.
b. The cut value is .500
The classification table is a summary accuracy table which displays the numerical and percentage allocation of responses that agree or did not agree that team performance is affected and enhanced by ethnic diversity. The classification table reveals that the classification accuracy percentage yielded 91.9%. The conclusion is that the classification accuracy is high and reliable.

Table 4.4

<table>
<thead>
<tr>
<th>Variables in the Equation</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
</tr>
<tr>
<td>-----</td>
</tr>
<tr>
<td>Step 0</td>
</tr>
</tbody>
</table>

The Wald statistics in this table which yielded 216.066 with a corresponding probability value of 0.000 entails that there is significant statistical difference between responses of agreement and responses of disagreement regarding the effect of ethnic diversity on team performance. Hence, the responses of 40 and 452 from table 4.3 are statistically different from each other. Therefore, we reject the null hypotheses that there is equal number of people within sampling variability in agreed and disagreed responses. The exponential Beta (Exp (B)) which yielded 11.300 represents the odds ratio.

Table 4.5

<table>
<thead>
<tr>
<th>Omnibus Tests of Model Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-square</td>
</tr>
<tr>
<td>Step 1</td>
</tr>
<tr>
<td>10.577</td>
</tr>
<tr>
<td>10.577</td>
</tr>
<tr>
<td>10.577</td>
</tr>
</tbody>
</table>

The Omnibus test of model coefficients is basically carried out to ascertain the predictive capacity of the regression equation/model. These shows the probability values of 0.001 which is less than 0.005 and this leads us to conclude that the regression equation has a reliable predictive capacity.

Table 4.6

<table>
<thead>
<tr>
<th>Model Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

^a. Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.

The Nagelkerke R-Squared which can also be econometrically called pseudo R-Squared yielded 0.593. This basically entails that 59.3% of the variations in team performance can be accounted
Table 4.7

<table>
<thead>
<tr>
<th>Variables in the Equation</th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step EthnicDiversity</td>
<td>-1.239</td>
<td>.359</td>
<td>11.911</td>
<td>1</td>
<td>.001</td>
<td>.290</td>
</tr>
<tr>
<td>1st</td>
<td>3.949</td>
<td>.502</td>
<td>61.921</td>
<td>1</td>
<td>0.000</td>
<td>51.904</td>
</tr>
</tbody>
</table>

Table 4.7 is the logistic regression output showing the contribution and effect of ethnic diversity on team performance. It can be clearly seen from the regression output that the coefficient of ethnic diversity yielded a negative numerical coefficient at a negative magnitude of -1.239. This entails that a unit increase in ethnic diversity from 0 to 1 is associated with a 1.239 decrease in team performance. This is practically justified because increase in different ethnic groups forming in a team will likely generate team disintegration. The Wald statistics associated to ethnic diversity variable yielded 11.911 with a corresponding significant probability value of 0.001.

**Decision:** From table 4.7, we see clearly that the Wald statistics yielded a coefficient of 11.911 with a corresponding probability value of 0.001. Since \( p = 0.001 < 0.005 \), we are compelled to accept the alternative hypothesis that ethnic diversity has a significant negative effect on team performance.

4.4 Discussion of Findings

In this section, the results emanating from the data analysis and test of hypotheses are discussed in line with the objectives of this study.

**Objective One: To determine the effect of ethnic diversity on team performance.**

To test the corresponding hypothesis, the logistic regression analysis was carried out and it was found out that ethnic diversity has significant negative effect on team performance. This may be surprising due to the fact that an ethnically diverse workforce is linked with more innovation and creativity owing to opportunities for learning and complementarities. Ethnic diversity is supposed to advantage team performance owing to a supplementary diverse pool of knowledge and skills that leads to complementariness and mutual learning. However, the contribution of cultural or ethnic diversity to organizational performance has mixed conclusions. It has been observed that an ethnically diverse workforce may bring different perspectives, ideas and experiences that may affect organizational process positively or may produce conflict among workforce groups and undermine group cohesion, team and organizational performance. Indeed, the multiplicity of perspectives, value dimensions and experiences that people from different ethnic backgrounds bring to a team can result in the flaring of emotions and interpretations of issues that result in conflict as observed by Hoogendoorn and van Praag (2012).
The findings of this study are also in line with that of Marx, Pons, and Suri (2015), which is that workers have preconceived overt and implicit preferences on who they would like to work with and therefore increasing ethnic diversity may result in disunity and lack of cohesion within the workforce. They point out that this is more obtainable in organizations operating in countries in which ethnicity is underscored by strong emotions. Nigeria being one of such countries, it is not surprising that ethnicity negatively impacts on team performance within organizations in the country. This finding of this study is equally supported by the Social Categorization Theory which predicts that individuals sort themselves into identity groups based upon salient characteristics and that they act in concert with their categories and favor contexts that affirm group identity (Hogg and Terry, 2010). In consequence, dissimilar individuals are less likely to collaborate with one another compared to similar individuals. In this way, social categorization may disrupt elaboration of task-relevant information because of possible biases towards in-group members and negative biases towards out-group members and therefore team performance is inevitably adversely affected.

5. Conclusion and Recommendations
This study has been able to empirically explore the impact of ethnic diversity on team performance in federal health institutions in South-East, Nigeria. Based on the findings of the study, conclusions can be drawn that ethnic diversity is a driving force in the selected institutions. Reviewed literature supports the dynamics of an interactive impact of ethnic diversity on team performance in federal health institutions in South-East, Nigeria.

The relevance of each diversity element to organizational performance however depends on the organization, geographical location, political or social environment and its diversity management strategy. Thus, as could be observed from the findings, in countries like Nigeria, where ethnicity is underscored by strong emotions or when there are perceived levels of discrimination on the basis of religion in organizations, the benefits of ethnic diversity is not adequately harnessed and organizational performance would be adversely affected.

In the light of the findings of the study, the following recommendations were made:
1. There should be a massive and consistent reorientation by organizations like the National Orientation Agency,
2. Management should encourage social interactions between employees so as to reduce preconceived opinions, stereotypes and prejudices.

References


