

# Submission of Thesis and Dissertation

## National College of Ireland

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Name: Uche Charles ORANS

Student Number: X18195164

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**Dissertation Topic: Examining the importance of Workforce Diversity in  
Driving Innovation**

**Student Name: Uche Charles ORANS**

**Student No: X18195164**

**Submitted in partial fulfilment of the award of MSc. International Business**

**School of Business**

**National College of Ireland**

**Supervisor: Dr. Kesiena Mercy EBENADE**

**Submitted to the National College of Ireland**

**(August 2020)**

## **DEDICATION**

This work is solely dedicated to the Almighty God, My Well-wishers and Family.

## **AKNOWLEDGEMENTS**

Firstly, I offer a profound gratitude to God Almighty whose guidance, protection and inspiration ensured the successful completion of this work. All glory to him forever. My unending gratitude goes to my ever-ready, committed and erudite supervisor, Dr. Kesiena Mercy EBENADE, who guided me judiciously during this work. Her observations, corrections, motivations, instructions and criticisms helped me thus far. I pray that God grant her endless blessings always. I appreciate all lecturers, and members of staff in the School of Business, the Library included, for their various contributions towards the success of this study. Many thanks to the various authors whose insightful ideas, views, works and postulations served as essential materials for this study. My appreciation also goes to the Guinness Nigeria Plc for availing me the opportunity of a practical experience with their organization. Finally, a profound gratitude to all who have indirectly or directly contributed to the success of this study, God's endless blessings always.

## ABSTRACT

This study examined the importance of workforce diversity on innovation using Guinness Nigeria Limited in Ikeja, Lagos-Nigeria. The major objective of this work is to examine the effect of workforce diversity on innovation in the alcoholic beverage industry using Guinness Nigeria Limited in Ikeja, Lagos-Nigeria as a case study. Creativity is a core value in most industries in recent time, this have made companies rapidly realize the vitality of creative knowledge and innovation as a source to gain a competitive advantage in their various industries considering the highly competitive external environment. More so, an organization that is slow to respond to this rapid change might be faced with the threat of an economic downturn. A survey design was used, and the data collected was from primary sources. A total of 136 respondents were selected using purposive sampling that comprises both the junior and senior members of staff of Guinness Nigeria Limited. Descriptive statistics, multiple regression and the Pearson moment correlation techniques were employed. Findings showed that workforce diversity promote innovation in the company with educational diversity ( $\beta =0.631, \rho <0.01$ ), ethnic diversity ( $\beta =0.465, \rho > 0.01$ ), religious diversity ( $\beta =0.163, \rho >0.1$ ), Age diversity ( $\beta=0.620, \rho <0.01$ ) and Gender diversity ( $\beta =0.412, \rho <0.1$ ). Additionally, a significant and positive relationship exists between educational diversity and innovation ( $r =0.416, \rho <0.01$ ), ethnic diversity and innovation ( $r =0.241, \rho < 0.05$ ), religious diversity and innovation ( $r =0.318, \rho <0.01$ ), age diversity and innovation ( $r=0.372, \rho <0.01$ ) but there was no relationship between gender diversity and innovation ( $r =0.076, \rho >0.1$ ). The study thus recommended that for effective performance and growth of a company, workplace diversity need to be encouraged.

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## CHAPTER ONE

### INTRODUCTION

#### **1.1 Background to the Study**

An organization that is innovative is perceived to be unique and stand out amidst its competitors. Innovation is very beneficial to an organization and at the same time beneficial to the customers as it aid in the profit increase of the organization, develops the organization so that it does not go obsolete, develops permanent and unending value for its customers. Furthermore, because in every field of life, be it social, physical and economic, diversity is seen as an important feature in an organization as a means of ensuring the efficient operation of the organization and increasing the quality of the product produced to satisfy customers (Isiaka and Ibitomi, 2019).

Business organizations which are in the developed and developing country are all trapped in the web of globalization which has heralded increase in demographic as well as personality diversity in the workforce. Diversity is a common phenomenon in an organization, society and even internationally because homogeneity is very rare in all aspect of life including physical, economic, and social. Diversity of the workforce was evident primarily to ensure equal resources were available in the workplace. Having said that, this phenomenon is one of the most exigent human resources and organizational issues currently; as both practitioners and those in the academic have sought to investigate the salient and symbolic relationship the composition of workforce in terms of demographic characteristics as well as the personality traits, has on the capability of an organization to innovate (Ehimare & Ogaga-Oghene, 2011). Manpower diversity is one of the increasing global phenomena in large businesses and is marked by people with several characteristics such as age group, race, religious affiliation, country of origin, languages, and also the human political dimension (Latif, 2015).

Workplace diversity focuses on the major variations and similarities that exist among the workers in an organization (Griffin & Moorhead, 2014). Nwinami (2014 ) stated that it reflects the distinctive features of: different individual age, personality, marital status , ethnicity and/or race , gender, faith, employment, work experience and all those views that presume and uphold an organization's core values. This also means that companies whose employee composition is focused on attributes such as age, race, experience, etc. turns out to be more diverse (Robbins & Judge, 2013).

Latterly, the issue of whether workplace diversity drives innovation has been a longstanding heated debate especially for management in their quest to boost their organizational performance (Choi *et al.*, 2016). The sizes of workplace diversity is ultimately studied in the social sciences were social vices like ethnicity, age of individual, sex, sexual orientation, religious belief, country of origin, functional and educational

backgrounds are mostly put into consideration ( see for example Bell *et al.*, 2011; Díaz-García *et al.*, 2013; Laursen *et al.*, 2006; Shore *et al.*, 2009;). It is also argued that employee diversity will improve innovation as in particular the innovation literature focuses more on studying diversity of workers as a facet of the results of innovation. (Östergård *et al.*, 2011; Díaz-García *et al.*, 2013; Parrotta *et al.*, 2014; Pfeifer and Wagner, 2014; Garcia-Martinez *et al.*, 2017; Bolli *et al.*, 2018). A pragmatic connection between workplace diversity and innovation results is also predicted in most studies as diversity is viewed to extend the company's innovation quest space and enhance the company's ability to find and use new ideas by engaging with different types of skills and expertise (Östergård *et al.*, 2011). Today, the search for talent is increasing and intensifying daily due to the world's increasing globalization and the need to compete with different competitors in the market. This has led the people of diverse backgrounds to eventually engage as they have become economic operators around the world and compete almost anywhere in the world, as well as people who no longer work and live in near surroundings (Patel, 2016). In order to gain a competitive advantage, companies are therefore more complex and imaginative, inventive and important to themselves. (Roh & Koo, 2019; Schubert & Tavassoli, 2020).

## **1.2 Statement of the Problem**

The emergence of creativity from converging disciplines is becoming increasingly apparent. As a result, the fundamental value of creativity and expertise is increasingly being recognized by organizations as an advantage in today's highly competitive world that faces a risk of economic downturn equally. As a result of this reason, they are looking for structural changes and strategies that will improve their capacity for learning and knowledge management and speed up innovation. Some have come to recognize that they need to focus on workplace diversity as well as capacity to understand and generate innovation.

Additionally, extant literature on the effect of diversity on innovations have been mixed. Some theoretical arguments emphasize that workplace diversity impacted negatively and significant on innovation (Ozgen, *et al.*, 2011, Bell *et al.* 2011; Harvey 2013). Their view was that diversity is a problem for businesses because it may lead to confrontation, mistrust and adverse effects on members of those outside the group (Shore *et al.*, 2009; Li, 2014). However, some studies opined that diversity drives innovation positively (Suzuki and Takamura, 2016; Isiaka and Ibitomi, 2019). The inconclusive result in the literature put policy makers in the management at a crossroad in order to determine whether diversity drives innovation or not. Therefore, the question that comes to mind is: does diversity stand as a driving force for innovation in an organization? This becomes the question in which this study tries to address.

### **1.3 Research Questions**

The following are the research questions in which this study tries to proffer solutions to:

- i. Is there any significant effect of workplace diversity on innovation?
- ii. Does gender diversity at workplace has any significant relationship with innovation?
- iii. Does ethnic diversity at workplace has any significant relationship with innovation?
- iv. Does religious diversity at workplace has any significant relationship with innovation?
- v. Does age diversity at workplace has any significant relationship with innovation?
- vi. Does educational diversity at workplace has any significant relationship with innovation?

### **1.4 Research Objectives**

The broad objective of the study is to examine the importance of diversity as a driving force to innovation in Guinness Nigeria PLC, Ikeja, Lagos State. The specific objectives are:

- i. To examine the effect of workplace diversity on innovation
- ii. To determine if any significant relationship exists between gender diversity and innovation
- iii. To assess if any significant relationship exists between ethnic diversity and innovation
- iv. To determine if any significant relationship exists between religious diversity and innovation
- v. To investigate if any significant relationship exists between age diversity and innovation
- vi. To assess if any significant relationship exists between educational diversity and innovation.

### **1.5 Research Hypothesis**

The following research hypothesis are formulated and tested for this study

H0<sub>1</sub>: Workplace diversity as regard gender, ethnic, religious, age and education have no significant impact on innovation.

H0<sub>2</sub>: Gender diversity has no significant relationship with innovation.

H0<sub>3</sub>: Ethnic diversity has no significant relationship with innovation.

H0<sub>4</sub>: Religious diversity has no significant relationship with innovation.

H0<sub>5</sub>: Age diversity has no significant relationship with innovation.

H0<sub>6</sub>: Education diversity has no significant relationship with innovation.

### **1.6 Significance of the Study**

In the literature, most studies have shown the benefits and significance of diversity in an organization; how it has really led to firm performance through improvement in innovation and the creation of new ideas to boost their performance and make them compete in the market. The diverse workplace is now a reality in workplace as different people of different caliber are employed. In most of the manufacturing sector in Nigeria, this issue has also become important and has also shown people vary, visible or unseen, in many

ways; in terms of age, gender, marital status, educational background, economic, disability, physical , social, academic, ethnic and cultural status (Onday, 2016).

However, most of the studies in diversity and innovation only look at one aspect of workforce diversity without breaking the workforce diversity into the different dimension and seeing the impact on whether it drives innovation or not. This study differs because it focused at the workplace diversity from the different dimension focusing on age, gender, education, ethnic, and religion. Also, the inconclusive findings in the literature shows that further studies need to be examined.

### **1.7 Scope of the Study**

The scope of the study is Guinness Nigeria PLC, Ikeja, Lagos State. Guinness PLC was chosen since they are one of the manufacturing sectors in the country that employs many people and are also faced with competitors, that make them want to come up with innovations which will boost their business and improve their customer satisfactions. Furthermore, the reason for the choice of Lagos State was because the headquarter of the company is in Lagos State hence having more members of staff which indicates an increase in respondents during the research survey.

### **1.8 Brief history of the Study Area**

Guinness Nigeria Plc is one of the subsidiaries of a leading company known as Diageo Plc in the United Kingdom. The company is majorly concerned with the provision of both alcoholic and non-alcoholic products, its bottling and marketing of the products. In Nigeria, the company was incorporated as a trading company in 1950 and named Guinness Nigeria limited after their improvement in the area of importation and sales of Guinness Stout from Dublin to Nigeria, which was consequently a decision made as a result of the success in terms of trade in Nigeria. A decision to build spinally brewery was agreed upon and in 1960, the construction of Ikeja brewery commenced.

With the commencement of the Ikeja brewery, in 1962, the stout brewery was opened there and commissioned in March 16th, 1963 by the then governor general of the state in person of Dr. Nnamdi Azikiwe. Nigeria then became the third place in the world in which the company were situated after London and Dublin. However, with increase in demand of the product in Nigeria and being that it was only situated in Ikeja; the Benin – City and Ogba in Lagos brewery were later opened in 1977 and also in 1982 and as at 1994, a brewery for Harp Lager was established in Benin City. Today, the company is listed among the quoted company in the Stock exchange with about 65% of its shares owned by the Nigerian citizen. The company also contributed to the gross domestic product of Nigeria.

## **1.9 Organization of the Study**

The analysis includes 5 chapters. The first chapter discussed the context to the project, the issue statement, research concerns, the research priorities, the importance of the analysis, the essence of the project and the brief overview of the field of study. Chapter two focused on review of the literature. It is composed of conceptual literature, the theoretical framework, empirical review, conceptual framework, and literature gap. Chapter three dealt with the methodology used for the study. Chapter four focused on presenting and analyzing the end results while chapter five covers summary, conclusion, recommendations, study limitation, knowledge contribution as well as suggestions for further studies.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter aims at discussing the literature that are relevant to diversity and innovation in an organization. Diversity discussion in different forms such as gender, age, education, ethnicity, culture as well as religious diversity are discussed in this chapter. The concept of innovation in terms of process innovation, product innovation, organizational innovation, marketing innovation and technological innovation are also addressed. Different theoretical literatures on the subject matter were also analyzed. The theories discussed are psychological organization theory, contingency theory, learning theory, goal theory, social utility theory and resource-based theory. Empirical literature on previous studies were also examined with the different methodologies employed and findings. The schema of the empirical works was also explained in this chapter as well as the framework for the model. The chapter concludes by drawing out the summary of the empirical literature and gap in the literature.

#### **2.2 Conceptual Issues**

This section deals with the definitions of some of the relevant terms that will guide this study. The concept of diversity and the different types of diversity are explained in this section. Concept of innovation, the different types of innovations and the link between diversity and innovations are explained in this section.

##### **2.2.1 Concept of Diversity**

Diversity is the number of individual differences that separate individuals and are like one another. It is regarded as the sum of individual differences that distinguish people from and is similar to one another (Latif, 2015). The term was not commonly used until about the mid-eighties and, through institutional analysis of the literature (Edelman, et al, 2001), the exposure to the word diversity started in 1987 and reached its height in the early nineties. The literature's on diversity encompasses all areas where individuals can differ. It simply means understanding that every individual is different and that our differences are valued. Various aspects of race, sexual orientation, gender, age, socioeconomic status, physical, social, political, or other ideologies may be taken. Evans & Henry (2007), stated that diversity implies a mixture of workers working together in a company from various socio-cultural backgrounds. It may be used as feature of social classification showing the degree of subjective or objective differences that exist between groups (Knippenberg & Schippers 2007).

Scott & Sims (2016) defined diversity in the workforce as "an approach that facilitates and supports the inclusion of human diversity at all levels and uses diversity-based policies and practices to guide this tactic in the work atmosphere". All these concepts clearly show that diversity is all about those features



that make us distinct or similar to each other. A diverse workforce in an organizational environment comprises a combination of workers from various ages, cultural backgrounds, genders, religious view, races etc.

### 2.2.2 Challenges of Diversity Management

Workplace diversity has various benefits for the growth and efficiency of an organization. However, there are some barriers associated with effective diversity management in any organization and these barriers need to be addressed if the organization must progress. These includes stereotype, prejudice, discrimination, budget, problem of languages, unsupportable attitudes of the management leaders in human resource, resistance to change.

**Stereotypes**—They consists of collections of assumptions that people believe concerning the personal characteristics of different classes. It is not being generalized, it evolves as a result of our study, reflection and appreciation of the differences between different people. The inequalities within the workplace are clarified by the fact that gender biased position persists. Organizations and the environment also find some occupations or workplaces to be women's occupations and receive less consideration, while other jobs or careers are only appropriate for men. (Syed & Ozbilgin, 2015).

**Prejudice**- Individuals that are selective in their moral behavior towards the leaders of other classes. Different forms of bias may appear. This can be achieved during recruiting, promotion or even routine office meetings. This can also be seen in age differences, where older staff presume younger workers and vice versa. Hubbard (2004) considered segregation a preconceived partiality. It may come in the shape of a retaliation, too.

**Discrimination**- This is a psychological trend that reveals how people view entities from certain cultures, and how they create decisions regarding them. The fear of discrimination will lead some people to feel uncertain about applying for jobs where various nationalities vary from their own. It is the act of treating people in a negative, separate and unfair manner because they belong to certain classes. Unchecked racism becomes prejudices, and then becomes discrimination (Hubbard, 2004). Workplace discrimination appears to affect the career development of workers, their level of confidence, motivation and relationships with their colleagues and their level of productivity.

**Budget**: Budget is yet another obstacle to diversity. Budget cannot be sidelined for any successful implementation of the diversity. When an organization experiences a downturn in productivity and

profit, it can lead to some employees in the organization being retrenched and laid off. Some workers can even want to leave when they do not trust the organization's future anymore. Therefore, companies must have the financial resources to retain a diverse workforce.

**Problem of Language:** This can also get in the line of achieving diversity. Diverse staff of various forms of language and cultural values joins the company. It can lead to issues of communication because workers cannot communicate with each other sufficiently. It can also cause distrust.

**Organizational leaders' reluctance to help** - Arredondo (1996) recognized that a firm's HR department could interfere with the initiative for diversity management. He noticed power struggle between the members of an organization as an obstacle to diversity in an organization during his study. He believed that the Department of Human Resources or other administrators could not assist or hinder who was responsible for enforcing this initiative. Consequently, they refuse to follow up with actions that support integration efforts because they believe they should be running the integration campaign since HR (Human Resource) struggles with problems affecting individuals (Kundu and Mor, 2017).

**Shift resistance:** Many staff can be so delighted that they fail to accept their leaders' specific policy, methods, policies or even new laws or guidance. They may rebel against the organization in order to demonstrate their dissatisfaction and rejection through sabotage of management changes (Khan and Jabeen, 2019; Foma, 2014).

**2.2.3 Implementing workforce diversity strategies.** For all diversity advocates, this could be the greatest obstacle. Based on the results of employee surveys and data analyses, they need to establish and execute a tailored strategy for maximizing the impact of organizational diversity on their businesses.

**Efficient workforce diversity strategy.** Diversity preparation alone is not enough for the diversity management system at the organization. A policy to build an egalitarian community that penetrates all departments and organizational components needs to be created and introduced.

### **Communication**

There is a need to overcome perceptual, cultural and language barriers for successful diversity programs. Ineffective presentation of main objectives results in uncertainty, loss of commitment and poor morale.

## **Ethnic superiority**

The views of the population are always ones of dominance. People say they are the best of their own habits too. In some cases, the companies lack job opportunities for workers of various backgrounds, especially in senior management positions, poor career arrangements.

### **2.2.4 Dimensions of Diversity**

There are different dimensions of diversity in the literature. This is because there are differences in the workplace among the employees in any organizations. According to Aydan, (2016), two categories are used in describing the differences among employees. These are primary differences and secondary differences. The primary differences include age while the secondary includes communication style, educational background and so on. However, the literature describes three different dimensions of diversity, that includes: primary, secondary and tertiary dimension also known as organizational diversity. These forms of diversity are described below:

#### **Primary Dimension**

The primary disparity is the first aspect of diversity. The key differences between individuals and the highest influence on initial experiences are visible in this aspect, it can be easily detected and it serves as a strainer through which people see the world. It contains age, physical ability, race, sex, sexual orientation, and so on. It contains identifiable characteristics of identity. (Colorado, 2012). Powell (2011) said these are vital unchanging personal characteristics that have profound effects over the lifespan and make our fundamental sense of identity.

#### **The Secondary Dimension**

The second dimension is the secondary dimension. The dimensions deal with differences that includes marital status of the employees, positions, educational background, religion, work style, position, years of work experience, income, organizational role, geographical location and etcetera These variables are not recognized in the primary dimension. These dimensions appear less apparent, have a more nuanced effect on the person and bring a more intricate complexity to the primary aspect of diversity (Sayers, 2012). These issues are less important to others because they are elements we have agreed on, so we may alter them. The secondary aspects of gender-driven culture related practice is what corporate scholars' term it. This type of differentiation involves a large range of distinctions received, rejected, and/or changed over a lifetime. Powell (2011) said our intimate, changing characteristics are the secondary dimensions. We are going to want to alter or even abandon characteristics that have been built over the years throughout our lives.

### **Tertiary Dimension**

The third dimension is also known as the organization. The present dimension discusses the characteristics of organisations, such as the word location, organisation, part or time, organisation, or community, rank etc. (Sayers, 2012). The secondary and interpersonal dimensions of diversity are focused on systems of information and decision taking. This viewpoint indicates that diversity has beneficial implications for the outcome of the working party, because it has a broad variety of views, expertise and know-how. Training, flexibility, and industrial know-how forms part of the skills used in the research. It improves performance if task-related content issues are dealt with and analyzed in many ways.

### **Virtual Level of Workplace Diversity**

#### **Gender Diversity**

Gender diversity means that all males and women are hired at the same pace, compensated fairly and rewarded at the same pace for comparable jobs. Many researchers suggest that there are gaps between men and women that influence work performance. Such findings have demonstrated that there are gaps between men and women in the fields of problem-solving abilities, analytical capabilities, and in the organization's morale, social adaptation and coping skills. It has been identified that women employment is a key contribution to companies' creative potential, as women are found to be more service-oriented while promoting innovation. Similarly, research has shown that a healthy diversity of gender within organizations improves their capacity to innovate (Nählinder, Tillmar and Wigren, 2015). Nevertheless, some reports show that women's absenteeism levels are higher than males and require steps to cope with gender and address these problems, such as flexible working hours and telework.

#### **Age Diversity**

Age diversity is the capacity of an organizational setting to accommodate all different types of ages. Companies must adapt to an aging population in various ways. Studies have shown that age diversity in workplace helps in improving performance, reduces employee's turnover and as well drives innovation in the industry. this is because it is believed that age diversity in the workplace will help in bringing different expectations, experiences, perspectives as well as different styles in an organization that will help drive innovation in the company.

#### **Ethnic Diversity**

This sort of ethnicity relates to the racial community the person is a part of. Most research indicates that there is a significant increase in the ethnic component in the workplace, especially in private sector

organizations. A higher degree of ethnic diversity does not lead to creativity in communities with low-value diversity output dramatically.

### **Cultural Diversity**

Cultural diversity requires the plurality of social and spiritual ideals of the labor force. Most of the work indicates there are cultural and social variations between classes. It is defined as when businesses are open to recruiting workers from diverse backgrounds of all kinds, regardless of ethnicity, religion and culture. As businesses hire and maintain a diverse pool of staff, it offers various advantages to the organization and its workers. Migration research has shown important economic impacts of cultural diversity on regional performance and productivity (Ozgen, Nijkamp and Poot, 2011). It is clear, however, that organizations with a more diverse international workforce are likely to be more innovative, particularly in terms of product innovation. In the same way, Herring (2009) describes diversity as a concept that, as typically defined, goes beyond the sex or race and also includes other types of differentiation, such as age, sex and ethnicity.

### **Educational Diversity**

Work shows that a significant proportion of the labour force is university graduate and that most of them are highly qualified. However, owing to lack of employment, many citizens with higher education and expertise are unemployed, which leaves them depressed and thereby contributes to psychiatric illnesses. (Chinicki, and Kreitner, 2007).

### **Religious Diversity**

Religious diversity is the fact that religious belief and practice differ considerably. People in the smallest and most marginalized groups have always accepted this. The word "religious diversity" remains descriptive. This does not translate naturally or immediately into religious coexistence or tolerance. In organization, there are different employees and from different religious background. All these works to boost the performance of the organization by providing their skills.

### **2.2.5 Strategy of Diversity Management**

Adler, (1997) in his work differentiate between two types of diversity management strategies where he firstly looked at the different ways on how diversity is discouraged in organizations which includes: Ignoring diversity and reducing diversity and went further to proffer strategies for solving the issues.

### **Ignoring diversity**

The first type of strategy diversity management by Adler is ignoring diversity management. According to him, diversity is not considered in this form of diversity management, as well as its effect on the organization. That is indeed common for strategies in many organizations. The administrators of these organizations believe that their strategy is the right way to handle and organize diversity, so that they do not think and deem it immoral to incorporate diversity. They also conclude that successful diversity management is likely to or can improve the positive impact; thus, their lack of diversity.

### **Reducing diversity**

The second form of strategic diversity management according to Adler, is the one that deals with reduced cost. In this situation, the boss tries to understand the sexism that comes with diversity which is seen as a source of problems. Under such a strategy, managers tend to lower the distinction issues by reducing the diversification, because they do not see that it is beneficial and rather concentrate on its drawbacks. Managers prefer homogeneous workforce or attempt to build systems to adapt all workers to the conduct that suits the dominant community, thereby eliminating the possibility of these problems.

### **2.2.6 Benefit of Workplace Diversity**

Quality and success in an organization depends on the ability of the organization to accept diversity and understand the benefits. Organizations that systematically evaluate their handling of issues related to organizational diversity, create, and execute diversity strategies, tend to experience multiple benefits such as:

#### **Increase in adaptability of the organization**

Organizations that hire a diverse workforce will provide a broader range of approaches to production, procurement, and resource management issues. Employees from a range of backgrounds have unique talents and perspectives to develop solutions that are flexible in addressing fluctuating conditions and customer demands.

#### **Broader in the area of service range**

Another significant advantage to an organizations' diversity is the fact that it contributes to a broader variety of programs within the company. This comes in the field of gathering diverse skills and experiences including languages, cultural awareness, and so on that enables a business to provide customer service globally.

### **Increased productivity**

Diversity in an organization also increase productivity in an organization. The fact that different ideas from different employees help in ensuring that productivity in the organization improved. It also helps in improving creativity and profits of the organization.

### **Leads to different opinions**

A diverse workplace which feels comfortable to express different viewpoints provides a wider pool of ideas and experiences. The corporation must draw from the pool to fulfill the demands of corporate plans and consumer desires more efficiently. This will help to increase customers trusts in the organization.

### **More successful execution**

Companies fostering workplace diversity are empowering all their employees to contribute to their maximum ability. Only company-wide approaches may be adopted; resulting in greater productivity, profits, and return on investment.

#### **2.2.7 Diversity management strategy**

The third form is the diversity management strategy. The organization that is adopting such a strategy is attempting a synergistically managed diversity. Organizations adopting this strategy also identified the effect of labor diversity on operational efficiency, as well as the pros and cons of diversity and the best way to address diversity is by the quest for diverse, heterogeneous workers providing a variety of organizational skills. In this way, the administrators should be able to reduce the potential challenges and increasing the advantages of handling diversity.

#### **2.2.8 Principles of diversity management**

To fully grasp and incorporate the philosophy of diversity management, we must recognize that efforts to address diversity need different forms of thought. Diversity management includes preparing, establishing priorities for implementation and achieving business objectives in all fields of organizational effect. All those systems need to work with the diversity management model. The figure below adopted from Bengt and Viveca, (2004). The figure shows that all the system needs to work together in other to ensure effective performance of the organization.

### Diversity Management Model

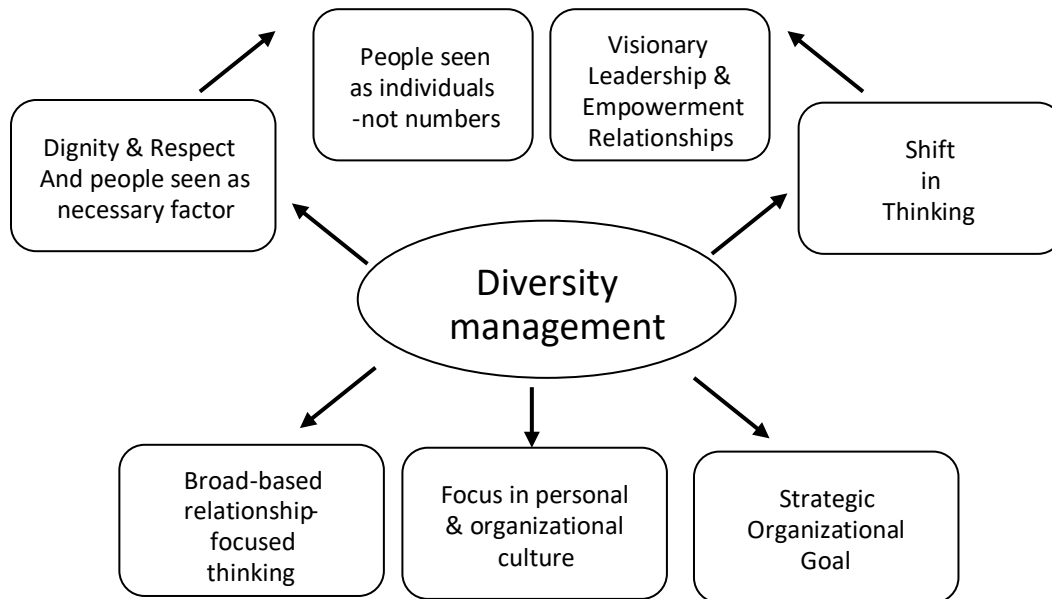


Fig 2.1 Source: Adopted from Bent and Viveca, 2004.

#### **2.2.9 Concept of Innovation**

The early idea of creativity in entrepreneurship and economic growth has been popularized by German economist Joseph Schumpeter. He also argued that economic growth not only depends on the accumulation of capital but is due to developments that induce a market disequilibrium (Schumpeter 1912, 1934 in Landstrom et al. 2012). Ever since then different researchers have come up with different definition of innovation in the literature.

#### **Types of Innovation**

The Organization for Economic Co-operation and Development (OECD) (2011) in their view, classified innovation in any sector into four different aspect. These include: Product innovation, process innovation, marketing innovation and organizational innovation. These classifications are important for this study and they are discussed below:

**Product Innovation:** According to OECD (2011), Product innovation requires the creation of a new or significantly changed good or service in terms of its features or its expected uses. Nevertheless, it is described by Wong (2004) as developing and subsequently implementing goods and services that are either new or an enhanced version of previous goods and services.



**Process Innovation:** Innovation in processes is described as the introduction of a new or substantially improved production or distribution method (OECD, 2011). This innovation pattern according to Galantoneam Cavusgila, & Zhao, 2002) are strongly associated with the issue of organizational learning and is based on the ability of organization to generate, accept and implement new ideas, processes, products, or services. While in the work of Baer and Frege (2013) process innovation is seen as a deliberate method to change the service process of production.

**Marketing Innovation:** Implementation of a modern marketing strategy which may require significant adjustments in product design or labeling, product positioning, sales advertising or costs. Otaker, Dedkora and Curimora (2018 ) argued that, in the context of globalization, business is faced with rapid changes both in the needs of customers and in the nature of the market, so that companies can gain a competitive edge and improve their performance by developing new products and attracting new customers and satisfying existing ones. Surabka 2016 and Kamp and Pary 2017, sees marketing innovation as a tool to fight the brand retailer's competition and show that creative marketing has a beneficial effect in booting sales while improving competitiveness in the area of cost.

**Organizational Innovation:** It involves product creation and creative methods. The OECD (2011) defines this as incorporating a modern operational approach into the firm's corporate processes, employee structure or public relations.

## **2.3 Theoretical Framework**

There are different theories in the literature in the area of diversity and innovation. Some of the theories in the literature that are relevant to this study are discussed.

### **2.3.1 Psychology organization theory**

This principle offers a selection of best fit practices for workers looking for streamlined processes and regulations. It may refer to all positions in all organizations. The theory claims that individuals are always categorized into social groups that have meaning for them, and this influences how individuals from their own identity category and from other groups communicate with others (Essays, 2018).

### **2.3.2 Theory of Contingency**

This theory says that the attitude of the company in many fields such as cultural and organizational approaches, community organization and individual workers depends "on diversity management and the performance of the organization."

### **2.3.3 Goals theory**

This theoretical concept stipulates that, "conflicts within organizational objectives and lack of clarification lead to difficulties in individuals' acceptance, which lead to low rates of organization's efficiency.

### **2.3.4 Learning theory**

This theory says: "Diversity management systems are an important way to reform the company's processes and fundamental tasks by removing unnecessary tasks and thus enabling the whole enterprise to enhance efficiency." Three other theories of diversity have also been established in Biga (2007) research and they are widely used in literature and management theories. These theories include the theory of capital, theory of social usage and the theory of contingency.

### **2.3.5 Resource based theory**

Diversity is a source for bringing value to the enterprise and leading change in efficiency through the cognitive advantages that individuals of different backgrounds possess. According to this theory, the workforce diversity provides the company with an additional advantage through the advantages of expertise, easy access to markets, as well as promoting the collaborative thought process that represents success.

### **2.3.6 Social utility theory**

The theory notes that maintaining diversity can be accomplished by finding a way to classify individuals with membership in the community. The theory stated that motivation will increase by promoting self-esteem by integrating the individual identity into the regulations of the organization and the teams.

## **2.4 Empirical Review**

On empirical ground, a lot of studies have been carried out in the literature to examine one form or the other of diversity on innovation which also have different forms. These studies range from developed, developing and emerging economies. Findings however differ based on the views of the different researchers.

Isiaka and Ibitomi (2019) in their study examined the link between workplace diversity and product innovation in some selected manufacturing industries in Nigeria. The study employed multiple regression in estimating the results from the response of 161 respondents. They found that educational diversity and work experience diversity impacted positively on product innovation on the manufacturing industries in Nigeria.

Ozen, Nijkamp and Pool (2010) investigated whether cultural diversity has any impact on innovation from data received in some selected firm from a survey in the form of employee to employer to employee macro data set using a unique ling for Netherland statistics. They concluded that outsiders accounts for a relatively high share in the employment pattern of the industries but less innovative. Also, the confirmed strong correlation between employment of more diverse foreign workforce becomes more innovative especially when it comes to the area of product innovation.

In another study, using a sample of 182 organization in Canada, Yang and Korad (2011) assessed the impact of workplace diversity and employee involvement on the performance of an organizational innovation. Employing multiple regression, the study found that a three-way interaction level exists between employee involvement, ratio ethnic and variation in involvement diversity on innovation. They added that organization with a huge number of workers bring about large variation in involvement and a higher level among ratio – ethnic minority may result in a stronger link between diversity at workplace and innovation. As a result, workplace diversity drives innovation.

Elias, Massen and Pisattello (2019) assessed the efficiency of cultural diversity on innovation performance of 31 selected multinationals companies from 1987 – 2010. They propose that cultural diversity effect is contingent in the content of whether the alliance is being positive or explorative and negative allowance. They concluded that when alliances focus on exploration, then there is the tendency that cultural diversity will impact positively on innovation.

Henry, Eze, Abiola, Adedoyin and Ayeni (2020) examined diversity management and its effect on corporate performance using a survey of 178 respondents from multinational companies in South – South, Nigeria. Employing structural equation modelling using diversity management and efficiency of the organization as latent variables, they concluded that diversity management and teamwork will significantly promote organizational efficiency in an organization if properly used in the multinational companies in Nigeria.

Studies on innovation and/or productivity inside a business appear to be on an operational basis (e.g., Jackson & Ruderman, 1996; Richard, Kochan, & McMillan-Capehart, 2002). Perhaps the correlation between immigration and economic growth has been an indirect measure so far attempted at a country level. For example, the OECD (2014) argues that migrants come with unique expertise and capacities, complementing already existing supply of human capital in the host nation. In a new study Bove & Elia (2017) reveals that cultural variation has risen in recent years owing to the dramatic rise in mass migration. By separating countries based on their initial level of progress, they have been able to prove that a rise in diversity related to immigration is good for economic growth, particularly for developed countries.

Nepelski and Piroli (2018) Investigated the impact of organizational diversity on innovation [potentials of EU – funded research projects]. They found that the effect of the university on the innovation potential is uncertain, that the overall number of core institutions in producing an invention has a detrimental influence

on the innovation potential, and that it essentially depends on the innovation and collaboration approach that provides adequate incentives and benefits. In the same vein, Schubert and Tavasoli (2020), from 2004 to 2012 studied product innovation and educational diversity in Sweden's top and middle management teams. They found that the middle management teams' diversity is what determines if the firms are engaged in innovation activities while the middle management team diversity dampens the outcome of innovation process basically in product innovation.

Ramanasary and Yeung (2018) researched a cross-country analysis on the connection between ethnic diversity, values diversity and innovation. The study focused on cultural diversity from an ethnic, religious, language, and values point of view and investigated them on country innovation. Using a sample of 61 countries in the analysis, they found that cultural diversity have a significant influence on the inputs of innovation in a country and that greater ethnic diversity within countries has significant negative effect on the innovation performance of a country while value diversity drives innovation among the countries if well assessed.

Mushtaq, Haider and Khan (2015) investigated whether workforce diversity is a driver to innovation using the Pakistan telecom sector as a case study. The impact of age, gender and education background on innovation was examined in the country. Two communications sectors where used and 15 each of the top management HR (Human Resource) staff of the telecom companies where used. The telecom companies were Zong and Mobilink. The data collected for the study was conducted through a well-designed questionnaire. The non-probability in the study shows that the sampling frame is irrelevant, thus non-probability technique was used in selecting the sample. The findings of the study showed that only two variables which are educational background and gender were significant in explaining the variance in employee performance when different workforce work together while age diversity does not. It was recommended among others that organizations should see diversity as a part of their basic strategy rather than a business expense will benefit far greater.

Table 2.1 Schema of literature review

Author/s	Title	Variables	Methodology	Findings
Backes Gellner and Veen 2013	Positive effects of agency in innovation companies large scale empirical endemic on company productivity	Age diversity	Employer- employee panel data set	Increasing age diversity has positive effect on company productivity
Roth and Koo (2019)	The impacts of diversity on team innovation and the moderating effects of cooperative team culture	Gender diversity Age diversity Value diversity Knowledge diversity Team innovation team size	Regression analysis and correlation	Cooperative team culture has a moderating effect on the relationship btw diversity Venables and team innovation Hence, diversity variable effect innovation is larger when cooperative team culture is stager

Elia, Petruzzelli and Lucia (2019)	The impact of cultural diversity on innovation performance of MNC subsidies in strategic alliances	Cultural diversity	Multiple Regression	Cultural diversity is positively related to innovation when the alliances focus on exploration activities as the challenge of cultural diversity offset the benefit of exposure to novel cognitive schemes
Inegbdion Sunday Asaleye Lawal and Adebanyi (2020)	Managing diversity for organizational efficiency	Diversity teamwork organizational efficiency	Structural equation modelling	Management of cultural diversity employees' perception of marginalization and conflict significantly influence diversity management. Also, diversity management and team work significantly influence organizational efficiency
Kundu and Mor (2017)	Workforce diversity and organizational	Gender diversity Diversity management	Factor analysis correlation	No significant relationship between

	performance of IT industry India		Analysis of valance and regression analysis	employees' background and diversity management while percent promotion of gender diversity by employees have significant position influence on their performance
Odotia and Egbule (2015)	Workforce diversity and organizational effeteness in Nigeria brewing industry	Cultural diversity	Survey Design/ linear Regression	Workforce diversity has positive on organizational effeteness. Also, cultural diversity more effective in building and group training
Schubert and Tavassoli (2020)	Product innovation and Educational diversity in top and middle management team	Educational diversity	Linear regression paired sample T-test	Top management team diversity determines whether from engage in innovation activities at all, while middle

				management team diversity affect the cultural outcome of innovation processes
Gallego and Gutierrez (2018)	An integrated analysis of the impact of gender diversity on innovation and production in management forms	Gender diversity	Tobit regression	Gender diversity drives forms productivity and woman participation has a larger effect on technological innovation then on organizational innovation
Dai, Byun and Ding (2018)	The direct and indirect impact of gender diversity on new venture teams on innovation performance (china)	Gender diversity new venture team Team diversity	Correlation and linear regression	There exists positive relationship between gender diversity scores of new venture team and innovation performances also gender diversity has positive influence on innovation
Khan and jabeen (2019)	Impact of workplace diversity on organization	Age diversity Educational diversity Gender diversity	Pearson correlation and linear regression analysis of variance	Positive correlation between workplace diversity and



	citizenship behavior (Pakistan)	Influence in decision making Organizational citizenship behavior		organizational citizenship behavior also significant relationship exist between workplace diversity and organizational citizenship behavior
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## **2.5 Summary of Literature and literature Gap**

It is amiable from the literature reviewed above that most literature studies only look at one aspect or the other in the area of diversity and innovation. The results of the studies may not be reliable since the different dimensions of diversity are not used in detecting whether diversity drives innovation in an organization. This study differs from other studies in that the different dimensions of diversity at workplace are examined separately to see the actual dimensions of diversity that drives innovation. Also, findings in the literature are inconclusive, this prove that further studies need to be examined to guide policy makers in an organization on how to improve their productivity.

Furthermore, from the schema of empirical literature, it is evident that studies on Nigeria are not many. This makes it important to examine the situation in Nigeria and also focusing on the brewery in which most of the empirical works ignored.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

The methodology used in this work is discussed in this chapter. The chapter focused on the research design, study population, sample size and sampling methods, data collection, instruments are accurate and reliable, model specification and the data analysis approach used to achieve the study's objectives.

#### **3.2 Research Design**

Research design is a comprehensive description of how the work was performed. This concerns how data is obtained, the methods used to collect data, and how data is processed (Cooper & Schindler, 2006). This thesis used a descriptive design of the analysis. Gill and Johnson (2002) note that, for comparative purposes, a descriptive design explores common features of a similar population of subjects at a single time point or at various times. The use of a survey method for this analysis was considered acceptable because Mugenda and Mugenda (2003) attest that it helps the researcher to assess the essence of the prevailing conditions without making the subject matter distorted or been manipulated.

Furthermore, the survey method has proven useful in defining the characteristics of population that are extremely large in which no other observation approach can have this general potential. On the other hand, since a limited timeframe was given for the completion of the thesis, the survey method was a cost – minimizing and effective approach to gather information within a short time from a large group of people. The survey design allowed very large samples possible and thus the findings were statistically meaningful even though several variables were analyzed. This allowed several questions about a given subject to be asked, bringing tremendous versatility to the study. High reliability is typically easy to obtain by providing a consistent stimulus to all subjects; observer subjectivity is effectively eliminated

Cooper and Schindler (2006) maintain that survey findings can be quickly applied to the whole population. That is because the way the questionnaire is conducted, it will take on various dimensions such as face-to - face interview, social media, email use, telephone survey and so on. It makes respondents' answers more truthful and truer because they have the ability to be frank and transparent as possible when filling out the questionnaire.

#### **3.3 Population of the Study**

Cooper & Schindler (2006) defined population as the complete number of things that we would like to draw any inferences about. According to Mugenda and Mugenda (2003) they describe population as a whole community of individuals, events or artifacts with specific observable features. In this study

therefore, the population are the employees of Guinness Nigeria Limited situated in Ikeja, Lagos State, Nigeria. This comprises of both the senior and junior staff in the organization.

### **3.4 Sampling Size and sampling Techniques**

Sampling design is a tool used to pick certain elements from a sample to represent the entire population interest group (Cooper and Schindler, 2006). Mugenda and Mugenda (2003) stated that the method of selecting several individuals for a sample so that the selected individuals match the general population is called sampling. Sampling reduces the time taken to complete the analysis as selected part of the population of the study will be selected. This reduces prices and is manageable as it closely matches the populations (Gallardo, Lachlan and Davis 2012). It allows for better precision and collection of data from fewer cases that is more accurate (Sharp and Howard 2006). This research used purposive sampling to obtain the sample it needed.

However, in order to determine the sample size from the population being studied, the Taro Yamane formula for the selection of sample size is used and the specification of the equation takes the form

$$n = \frac{N}{1+N(e)^2} \quad (3.1)$$

Where:

n = Sample size to be derived

N = The Total Population

e = Level of error tolerated

### **3.5 Data Collection Method**

Data collection includes collecting and evaluating knowledge in a defined structured manner on specified variables, which allows one to address important questions and analyze the findings (Cooper and Schilndler 2006). The primary source of data collection for this study was carried out using a questionnaire type of five-point Likert scale designed to achieve all the study's objectives. The option of a questionnaire is focused on the justification that the respondent will provide a precise, standardized and coherent view. The study questionnaire is closed-ended and structured in an easy way to allow respondents to understand as appropriate the questions and answers. The questionnaire was also intended to reflect the questions and objectives of the research. This approach was introduced as it is the best way to meet multiple respondents because it guarantees the accuracy and validity of the knowledge gathered from the respondent for the analysis.

### **3.6 Research Instrument**

The investigative method for the analysis was questionnaires. When constructing the questionnaire for this analysis, the researchers adapted and updated correct questionnaires from previous empirical works. The questions will consist of a list of relevant questions and theories for study questions. The survey is divided into two sections. The first segment consisted of the respondents' demographic characteristics while the second included information on diversity and creativity. The questions were prepared with statements and organized in a 5-Likert format, ranging from the lowest to the highest. The scale takes (1) for strongly disagree (2) for disagree (3), for undecided (4), for agree and (5) represented strongly agree.

### **3.7 Validity of the Research Instrument**

Validity means how reliably a method calculates what it wants to test. The literature uses three specific validity types including material validity, construct validity and validity of criteria. The validity of the content dictates to which degree objects the property or the attribute the researcher wishes to measure accurately measure or represent. The expert review of topics often represents a helpful first step in the production of instruments in relation to the area or sector you are researching to determine the consistency of the information. In other words, the validity of construct means how effective a measuring method is in representing a construct (for example, a latent variable or phenomenon, for example, the attitude or opinion of the individual, which cannot be measured directly) and producing a result that differs from that created by a measurement of another construct. Different approaches exist for assessing the validity of the construct, including, but not limited to, correlation tests, factor analysis and item response theory models (including the rapid model). For this research however, the content validity was used, this is because May (2001) proposed that the content validity would help to check the accuracy of the instrument it would like to test. The questionnaire was scrutinized by the researcher's supervisor to ensure that its contents were correct in order to check the face quality of the questionnaire. This includes testing that the vocabulary, the field of material, the study aims and its significance in the subject matter are being correctly used.

### **3.8 Reliability of Instrument**

Reliability involves the degree to which a phenomenon calculation yields reliable and stable results (Carmines and Zeller, 1979). It is also regarded as a matter of repetitiveness in the literature. Popular reliability measures include internal quality, test-retest reliability and inter-rater reliability. Reliability of internal consistency is based on the score of individual items being consistent on the instrument together with the scores of a group of objects, or subscale, usually consisting of multiple objects for the calculation of a single construct. The Cronbach alpha is regarded as one of the most popular ways of checking internal consistency reliability in the literature over the years. However, team variability, number of items in the

questionnaire, the sample size, score reliability and the level of complexity of the instrument may also affect the alpha value of the Cronbach.

The second is the test-retest tests which measures the association between scores from one instrument to another administration, usually within 2 to 3 weeks. In comparison to pre-post monitoring, there is no care between the instrument's first and second administration to test-retest reliability. Developing a correct and accurate instrument usually needs several piloting and testing iterations and can be resource intensive. Furthermore, adding to validating the tools by professionals, the data will be encoded with the Statistical Package for Social Sciences for reliability procedures. The Cronbach's alpha was used for the test of reliability and a value above 70 percent reflected a reliable instrument.

### 3.9 Model Specification

The first objective of this study is to examine the effect of workplace diversity on the innovation. To achieve this objective, multiple regression will be employed. The variables for workplace diversity as suggested by various studies in the literature will also be adopted. The measures include, gender, age, education, ethnic, and religious. The model is specified as

$$INO = f( X_1, X_2, X_3, X_4, X_5) \quad (3.2)$$

Where

INO = Innovation (Dependent Variable)

$X_1$  = Gender diversity (Independent variable)

$X_2$  = Age diversity (Independent variable)

$X_3$  = Education diversity (Independent variable)

$X_4$  = Ethnic diversity (Independent variable)

$X_5$  = Religious diversity (Independent variable)

The mathematical form of the model is specified as

$$INO = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \mu_t \quad (3.3)$$

Where:

$\beta_0$  = Intercept

$\beta_1 - \beta_5$  = Coefficient of the independent variable

$\mu_t$  = Error term

On apriori we expect the coefficient of  $\beta_1 - \beta_5 > 0$ . This indicate that all the measures of workplace diversity should improve innovation in the company.

### **3.10 Method of Data Analysis**

The data collected from the field was coded. The demographic characteristics of the respondents was analyzed using descriptive analysis. This comprises the frequency and percentages. In order to achieve the first objective, multiple regression was used and the coefficient of correlation which is the R-squared was used to determine the extent to which the independent variables accounted for the dependent variable. The second, third, fourth, fifth and sixth objective was achieved using the Pearson Moment Correlation techniques. The Cronbach alpha was used to test for the reliability of all the items used in the study.

## CHAPTER FOUR

### DATA ANALYSIS AND DISCUSSION OF RESULT

#### 4.1 Introduction

This chapter present the data and analyze the result obtained from the response of the respondent from the questionnaire administered. This chapter is structured into five different sections, to be in line with the research objectives and questions. The first section deals with the response rate of respondent; the second section deals with the demographic characteristics of the respondents; the third section presents the findings on the various work place diversity in terms of gender, age, religions, ethnic and educational diversity; the fourth section focused on the test of hypothesis; finally, the fifth section discussed the summary of findings. The result obtained is used for the conclusion and recommendation for the study. The outcome from the result is used for contribution to knowledge and suggestion for further studies.

#### 4.2 Presentation of Result

##### 4.2.1 Response Rate

The sample size of this study was 150 which was a total of the workers of Guinness Nigeria PLC, Lagos branch, Ikeja including managers, senior staff and junior staff. However, out of the 150-questionnaire distributed, 136 of the respondents returned their response while 14 of the respondents failed to submit. This response rate represents about 91 percent of the total population which shows that a higher percentage of the respondent view were captured. This imply a good response rate. The result is presented on the table 4.1 below:

**Table 4.1. Response rate**

Questionnaire	Frequency	Percentage
Completed and returned	136	90.7
Non response	14	9.3
<b>Total</b>	<b>150</b>	<b>100</b>

Source: Computed by Author' 2020



#### 4.2.2 Demographic Characteristics of Respondents

Table 4.2 presents the demographic characteristics of the respondent. A total of 150 questionnaires were distributed however, only 136 were received. The study therefore based its finding on the 136 respondents.

**Table 4.2. Demographic Characteristics of Respondent**

<b>Characteristics</b>	<b>Frequency</b>	<b>Percentage (%)</b>
<b>GENDER</b>		
Male	88	64.7
Female	48	35.3
<b>Total</b>	<b>136</b>	<b>100.0</b>
<b>AGE GROUP</b>		
20 – 30 years	2	1.5
31 – 40 years	69	50.7
41 –50 years	57	41.9
50 years and above	8	5.9
<b>Total</b>	<b>136</b>	<b>100.0</b>
<b>MARITAL STATUS</b>		
Married	107	78.7
Single	19	14.0
Others	10	7.4
<b>Total</b>	<b>136</b>	<b>100.0</b>
<b>ETHNIC GROUP</b>		
Yoruba	53	39.0
Hausa	35	25.7
Igbo	45	33.1
Others	3	2.2
<b>Total</b>	<b>136</b>	<b>100.0</b>
<b>RELIGION</b>		
Christianity	84	61.8
Islam	41	30.1
Others	11	8.1

<b>Total</b>	<b>136</b>	<b>100.0</b>
<b>HIGHEST EDUCATIONAL QUALIFICATION</b>		
PHD	0	0
M. Sc/MBA	70	51.5
B. Sc/HND	16	11.8
OND/NCE	40	29.4
Others	10	7.4
<b>Total</b>	<b>136</b>	<b>100.0</b>
<b>WORK EXPERIENCE</b>		
Less than 5 years	14	10.3
5 – 10 years	54	39.7
11-15years	48	35.3
Above 16 years	20	14.7
<b>Total</b>	<b>136</b>	<b>100.0</b>
<b>POSITION</b>		
Manager	4	2.9
Senior staff	84	61.8
Junior staff	48	35.3
<b>Total</b>	<b>136</b>	<b>100.0</b>

Source: Field survey, 2020

From table 4.2 it is shown that out of the 136 respondents that responded to the questionnaire, 88(64.7%) are male while 48(35.3%) of the respondent are female. This shows that there was more male respondent than female. This therefore indicate that Guinness Nigeria limited employs both male and female.

As regards age of the respondent, 2(1.5%) falls within the age of 20-30yeras, 69(50.7%) are within 31-40years, 57(41.9%) falls between 41-50years while only 8(5.9%) are ages above 50years. This indicates that majority of the employees working with Guinness Nigeria limited were of younger age and are still relevant in the growth of the company. More so, it shows that the company employs different age groups. On marital status, the respondents with the highest proportion of age are those that are named with 107 (78.7%), single represents 19(14.0%) while those that are neither married nor single represents 10(7.4%) of the respondents. In terms of ethnic group, the

table shows that 53(39.0%) of the respondents were Yoruba, 35(25.7%) were Hausa, Igbo represents 45(33.1%) of the respondents while those from other ethnic groups were 3(2.2%). This shows that Guinness Nigeria limited employs workers from different ethnic background.

Furthermore, on educational qualification, none of the respondents have a doctorate degree (Ph.D.). However, 70(51.5%) of the respondent have either MSc or MBA certificate, 16(11.8%) possess OND /NCE degree, 40(29.4%) of the respondent have first degree certificate while 10(7.4%) have other degrees that are not listed on the choice of the respondent in the questionnaire. Additionally, concerning the length of work experience of the respondent, 14(10.3%) of the respondents have less than 5years work experience, 54(39.0%) have between 5 to 10years work experience, 48(35.3%) have between 11 to 15 years work experience while 20(14.7%) have above 16 years working experience based on their length of service.

On the positions of the respondents only 4(2.9%) are managers 84(61.8%) of the respondents are senior staff while 48(35.5%) are junior staff based on the result, majority of the respondent are senior staff.

**Table 4.3. Gender Diversity and Innovation**

No	ITEMS	SD	D	U	A	SA
1	Male and female gender have equal opportunity for bringing different innovations in the company	4 (2.9%)	9 (6.6%)	10 (7.4%)	25 (18.4%)	88 (64.7%)
2	I enjoy bringing in new ideas with the opposite gender based on their work performance	5 (3.7%)	8 (5.9%)	4 (2.9%)	27 (19.9%)	92 (67.6%)
3	Employer do not discriminate employees based on gender opinion	3 (2.2%)	8 (5.9%)	10 (7.4%)	41 (30.1%)	74 (54.4%)
4	There is poor effectiveness leading from dissimilarity in gender	2 (1.5%)	5 (3.7%)	16 (11.8%)	33 (24.3%)	80 (58.8%)
5	Working groups are easily formed from workforce of the same gender	8 (5.9%)	4 (2.9%)	11 (8.1%)	23 (16.9%)	90 (66.2%)

Source: Author's computation 2020

The response of the respondents on the questionnaire on gender diversity; Based on all the questions raised, majority of the respondents strongly agreed on the fact that gender diversity drives innovation in workplace. On the first questions on male and female gender, there is an equal opportunity for binging different innovation in the workplace. 64.7% of the respondents strongly agreed, 18.4% agreed. The total percentage that disagreed and strongly disagreed were only 9.6%

and only 7.4% were neither here nor there. The outcome from the first question on gender diversity shows that respondents agreed that gender is an important factor that drives innovation. Also, higher respondents were of the view that they enjoyed bringing in new ideas with different gender.

**Table 4.4. Age Diversity and Innovation**

No	ITEMS	SD	D	U	A	SA
1	Members of all different ages are included in problem solving by my team leader	2 (1.5%)	7 (5.1%)	13 (9.6%)	23 (16.9%)	91 (66.9%)
2	Group formation in workplace is affected by age difference	4 (2.9%)	10 (7.4%)	9 (6.6%)	28 (20.6%)	85 (62.5%)
3	Consensus building among employees is affected by difference in age	5 (3.7%)	7 (5.1%)	8 (5.9%)	24 (17.6%)	92 (67.6%)
4	Group effectiveness is affected by age differences	5 (3.7%)	11 (8.1%)	10 (7.4%)	27 (19.9%)	83 (61.0%)
5	Working with people of different age groups gives me no problem	2 (1.5%)	6 (4.4%)	5 (3.7%)	30 (22.1%)	93 (68.4%)
6	I derive motivation from working with people of different age group	4 (2.9%)	7 (5.1%)	14 (10.3%)	40 (29.4%)	71 (52.2%)

Source: Author's computation, 2020

Table 4.4 shows the response of the respondents on questions relating to age diversity and innovations in the organization. The findings show that majority of the respondents strongly agreed that age diversity stands as a good driver for innovation in the organization. Only few of the respondents disagreed. It can be concluded from the response of the respondents that age diversity is a driver of innovation in any business.

**Table 4.5. Religious Diversity and Innovation**

No	ITEMS	SD	D	U	A	SA
1	My workplace performance is affected through working with colleagues from different religious background	3 (2.2%)	6 (4.4%)	8 (5.9%)	29 (21.3%)	90 (66.2%)
2	No conflict is created from interaction between colleagues with different religious beliefs in the workplace	6 (4.4%)	11 (8.1%)	2 (1.5%)	30 (22.1%)	87 (64.0%)
3	There is easy co-operation for the purpose of problem solving among colleagues from different religious background	5 (3.7%)	9 (6.6%)	25 (18.4%)	24 (17.6%)	73 (53.7%)
4	Religious practices and beliefs enable workers to be committed to their work	2 (1.5%)	9 (6.6%)	6 (4.4%)	49 (36.0%)	70 (51.5%)

5	Commitment to work in the organization is greatly enhanced by religion	5 (3.7%)	11 (8.1%)	9 (6.6%)	45 (33.1%)	66 (48.5%)
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Source: Author's computation, 2020

Table 4.5 shows the response of the respondents on questions relating to religious diversity and innovations in the organization. The findings show that majority of the respondents strongly agreed that religion diversity stands as a good driver for innovation in the organization. Only few of the respondents disagreed. It can be concluded from the response of the respondents that religion diversity is a driver of innovation in any business also.

**Table 4.6. Ethnic Diversity and Innovation**

No	ITEMS	SD	D	U	A	SA
1	My decision-making ability is influenced through working with colleagues from different ethnic background	4 (2.9%)	8 (5.9%)	9 (6.6%)	34 (25.0%)	81 (59.6%)
2	No conflict is created from the use of different languages for communication in the workplace	4 (2.9%)	12 (8.8%)	11 (8.1%)	18 (13.2%)	91 (66.9%)
3	There exists easy co-operation between me and other colleagues from different ethnicity	6 (4.4%)	7 (5.1%)	5 (3.7%)	54 (39.7%)	64 (47.1%)
4	Group formation and cohesion among employees is affected by language differences	2 (1.5%)	7 (5.1%)	3 (2.2%)	28 (20.6%)	96 (70.6%)

Source: Author's computation, 2020

Table 4.6 shows the response of the respondents on questions relating to ethnic diversity and innovations. The findings show that majority of the respondents strongly agreed that ethnic diversity stands as a good driver for innovation in the organization. Only few of the respondents disagreed. It can be concluded from the response of the respondents that ethnic diversity is a driver of innovation in any business also.

**Table 4.7. Educational diversity and Innovation**

No	ITEMS	SD	D	U	A	SA
1	My ability to perform the core task responsibility assigned to me is affected by my educational level and background.	3 (2.2%)	6 (4.4%)	7 (5.1%)	30 (22.1%)	90 (66.2%)
2	Conflict among employees is not encouraged by the differences in educational background.	4 (2.9%)	11 (8.1%)	6 (4.4%)	34 (25.0%)	81 (59.6%)
3	My educational background leads me to experience confidence in the workplace	6 (4.4%)	9 (6.6%)	9 (6.6%)	33 (24.3%)	79 (58.1%)

4	Problem solving and decision-making ability is affected by working with colleagues with different educational background	5 (3.7%)	8 (5.9%)	7 (5.1%)	29 (21.3%)	87 (64.0%)
5	When I am in a team of workmates with different educational level, I do my job perfectly	3 (2.2%)	7 (5.1%)	4 (2.9%)	38 (27.9%)	84 (61.8%)
6	The different educational background which exist in the workplace generates diverse experience and through that enhances performance	4 (2.9%)	16 (11.8%)	4 (2.9%)	17 (12.5%)	95 (69.9%)
7	High effectiveness is enhanced through having employees of the same educational levels and background	2 (1.5%)	8 (5.9%)	11 (8.1%)	35 (25.7%)	80 (58.8%)

Source: Author's computation 2020

Table 4.7 shows the response of the respondents on questions relating to educational diversity and innovations. The findings also confirmed majority of the respondents strongly agreed that educational diversity stands as a good driver for innovation in the organization. Only few of the respondents disagreed. It can be concluded from the response of the respondents that educational diversity is a driver of innovation in any business also.

**Table 4.8. Innovation**

No	ITEMS	SD	D	U	A	SA
1	Technology has brought in new ideas to the organization	1 (0.7%)	6 (4.4%)	9 (6.6%)	36 (26.5%)	84 (61.8%)
2	Technology has led to improvement in sales	3 (2.2%)	11 (8.1%)	5 (3.7%)	14 (10.3%)	103 (75.7%)
3	Technology has assisted in the expansion of the business	7 (5.1%)	12 (8.8%)	3 (2.2%)	27 (19.9%)	87 (64.0%)
4	The company welcomes new ideas from workers	5 (3.7%)	10 (7.4%)	6 (4.4%)	26 (19.1%)	89 (65.4%)
5	Different age groups in the organization has brought about new ideas	9 (6.6%)	16 (11.8%)	6 (4.4%)	17 (12.5%)	88 (64.7%)
6	The different educational qualification has assisted in innovation in the company	4 (2.9%)	11 (8.1%)	9 (6.6%)	34 (25.0%)	78 (57.4%)
7	Sales volume has increased as a result of workplace diversity	3 (2.2%)	16 (11.8%)	3 (2.2%)	20 (14.7%)	94 (69.1%)
8	Workplace diversity has led to improvement in new method of productions	5 (3.7%)	9 (6.6%)	19 (14.0%)	24 (17.6%)	79 (58.1%)

9	Diversity has led to new methods of sales	4 (2.9%)	12 (8.8%)	1 (0.7%)	28 (20.6%)	91 (66.9%)
10	Different age structure in our organization has brought about different techniques employed in production	3 (2.2%)	7 (5.1%)	11 (8.1%)	18 (13.2%)	97 (71.3%)
11	Different educational background has given us edge over our competitors	5 (3.7%)	12 (8.8%)	5 (3.7%)	28 (20.6%)	86 (63.2%)

### 4.3 Test of Hypothesis

This section is used for the test of hypothesis that were formulated as a means to achieve the set objectives.

#### Hypothesis One

H<sub>0</sub>: Educational diversity, ethnic diversity, religious diversity, age diversity and gender diversity have no significant impact and does not drives innovation.

H<sub>1</sub>: Educational diversity, ethnic diversity, religious diversity, age diversity and gender diversity have a significant impact and does drive innovation

To achieve this objective, regression analysis was employed, and the result obtained is presented in table 4.9 below:

Table 4.9. Regression Result

Variable	F- Ratio	Sig of P	R	R <sup>2</sup>	Adj R <sup>2</sup>	$\beta$	T	$\rho$
Constant	8.49	0.00	0.698	0.646	0.617	25.859	4.989	0.000
Educational Diversity						0.631	3.288	0.001
Ethnic Diversity						0.465	1.62	0.108
Religious Diversity						0.163	0.647	0.519
Age Diversity						0.62	2.676	0.008
Gender Diversity						0.412	1.79	0.076

Source: Authors computation 2020 using SPSS 26

Table 4.9 shows that the linear combination of educational diversity, ethnic diversity, religious diversity, age diversity and gender diversity was significant in driving innovation in Guinness

Nigeria PLC with ( $F=8.490$ ,  $\rho < 0.01$ ,  $R=0.698$ ,  $R^2=0.646$  and adjusted  $R^2 = 0.617$ ) based on the  $R^2$  result, the independent predictor variables jointly accounted for about 65 percent in the variation of innovation. The following shows the various relative contribution and level of significances of independent variables: educational diversity ( $\beta = 0.631$ ,  $\rho < 0.01$ ), ethnic diversity ( $\beta = 0.465$ ,  $\rho > 0.01$ ), religious diversity ( $\beta = 0.163$ ,  $\rho > 0.1$ ), age diversity ( $\beta = 0.620$ ,  $\rho < 0.01$ ) and gender diversity ( $\beta = 0.412$ ,  $\rho < 0.1$ ). Based on the result, it shows that all the various forms of diversity have positive impact on innovation. Furthermore, only educational diversity and age diversity are significant factors that drives innovation while ethnic, gender and religious diversity do not.

Based on the result we conclude the linear consumption; educational diversity, ethnic diversity, religious diversity, age diversity and gender diversity drives innovation. Hence, we reject the null hypothesis.

## Hypothesis Two

$H_0$ : There is no significant relationship between gender diversity and innovation

$H_1$ : There is significant relationship between gender diversity and innovation

To achieve this objective, Pearson moment correlation techniques was used and the result is presented below

Table 4.10. Correlation between Gender Diversity and Innovation

Variable	Mean	Std Dev	N	R	P	Remarks
Innovation	50.9044	4.36633	136	0.076	0	Significant
Gender Diversity	18.2574	2.00738				

Source: Author's computation. 2020

It is shown in the table above that there is a significant relationship between gender diversity and innovation ( $r=0.076^{**}$ ,  $N=136$ ,  $\rho < 0.377$ ). The table further shows the mean value for innovation and gender diversity fall within the range between the minimum (Innovation, 31.00 and Gender diversity, 12.00) and maximum (Innovation, 55.00 and Gender diversity, 20.00) value as seen in the appendix with a low standard deviation of 4.36633 for innovation and 2.00738 for education diversity respectively. However, based on the result, from the correlation table it indicates that significant correlation exists at 0.01 level of significance with a 2 tail tests. Therefore, we concluded that the null hypothesis be rejected.



### Hypothesis Three

H<sub>0</sub>: There is no significant relationship between ethnic diversity and innovation

H<sub>1</sub>: There is significant relationship between ethnic diversity and innovation

In order to achieve this hypothesis, the Pearson Moment Correlation techniques was employed and the result is presented below

Table 4.11. Correlation between Ethnic Diversity and Innovation

Variable	Mean	Std Dev	N	R	P	Remarks
Innovation	50.9044	4.36633	136	0.241	0	Significant
Ethnic Diversity	18.0809	2.06220				

Source: Author's computation, 2020

It is shown in the table above that there is a significant relationship between ethnic diversity and innovation ( $r=.241^{**}$   $N=136$   $\rho<0.005$ ). The table further shows the mean value for innovation and ethnic diversity fall within the range between the minimum (Innovation, 31.00 and Ethnic diversity, 10.00) and maximum (Innovation, 55.00 and Ethnic, 20.00) value as seen in the appendix with a low standard deviation of 4.36633 for innovation and 2.06220 for ethnic diversity respectively. However, based on the result, from the correlation table it indicates that significant correlation exists at 0.01 level of significance with a 2 tail tests between ethnic diversity and innovation. Therefore, we concluded that the null hypothesis be rejected.

### Hypothesis Four

H<sub>0</sub>: There is no significant relationship between religious diversity and innovation

H<sub>1</sub>: There is significant relationship between religious diversity and innovation

Table 4.12. Correlation between Religion Diversity and Innovation

Variable	Mean	Std Dev	N	R	P	Remarks
Innovation	50.9044	4.36633	136	0.318**	0	Significant

Religion Diversity 22.2206 2.70169

Source: Author's computation. 2020

It is shown in the table above that there is a significant relationship between religious diversity and innovation ( $r=.318^{**}$   $N=136$   $p<0.000$ ). The table further shows the mean value for innovation and religious diversity fall within the range between the minimum (Innovation, 31.00 and Religious diversity, 11.00) and maximum (Innovation, 55.00 and Religious diversity, 25.00) value as seen in the appendix with a low standard deviation of 4.36633 for innovation and 2.70169 for religious diversity respectively. However, based on the result, from the correlation table it indicates that significant correlation exists at 0.01 level of significance with a 2 tail tests. Therefore, we concluded that the null hypothesis be rejected and hence agreed that a significant relationship exist between religious diversity and innovation.

### Hypothesis Five

H<sub>0</sub>: There is no significant relationship between age diversity and innovation

H<sub>1</sub>: There is significant relationship between age diversity and innovation

In order to achieve this objective, the Pearson moment correlation techniques was used and the result is presented below

Table 4.13. Correlation between Age Diversity and Innovation

Variable	Mean	Std Dev	N	R	P	Remarks
Innovation	50.9044	4.36633	136	0.372	0.00	Significant
Age Diversity	27.3088	3.42651				

Source: Author's computation 2020

It is shown in the table above that there is a significant relationship between age diversity and innovation ( $r=.372^{**}$   $N=136$   $p<0.01$ ). The table further shows the mean value for innovation and age diversity fall within the range between the minimum (Innovation, 31.00 and Age, 12.00) and maximum (Innovation, 55.00 and Age, 30.00) value as seen in the appendix with a low standard deviation of 4.36633 for innovation and 3.42651 for age diversity respectively. However, based

on the result, from the correlation table it indicates that significant correlation exists at 0.01 level of significance with a 2 tail tests. Therefore, we concluded that the null hypothesis be rejected.

**Hypothesis Six**

H<sub>0</sub>: There is no significant relationship between educational diversity and innovation

H<sub>1</sub>: There is significant relationship between educational diversity and innovation

To achieve the hypothesis, the Pearson correlation techniques was employed and the result is presented as follows:

Table 4.14. Correlation between Educational Diversity and Innovation

Variable	Mean	Std Dev	N	R	P	Remarks
Innovation	50.9044	4.36633	136	0.416**	0	Significant
Educational Diversity	23.0294	2.55297				

Source: Author’s computation. 2020

It is shown in the table above that there is a significant relationship between educational diversity and innovation ( $r=0.416^{**}$   $N=136$ ,  $\rho<0.000$ ). The table further shows the mean value for innovation and educational diversity fall within the range between the minimum (Innovation, 31.00 and Educational diversity, 15.00) and maximum (Innovation, 55.00 and Educational diversity, 25.00) value as seen in the appendix with a low standard deviation of 4.36633 for innovation and 2.55297 for education diversity respectively. However, based on the result, from the correlation table it indicates that significant correlation exists at 0.01 level of significance with a 2 tail tests. Therefore, we concluded that the null hypothesis be rejected.

#### **4.4 Discussion of Findings**

The study was carried out to determine the role of diversity as a driving force for innovation using Guinness Nigeria Limited, Ikeja branch, Lagos State as a case study. Six different objectives were formulated:

Objective one was to determine the impact of workplace diversity on innovation. The findings show that all the workforce variables in terms of gender, ethnic, religion, age and education impacted positively on innovation. However, ethnic diversity and religious diversity were not significant and education diversity role was the highest that drives innovation in the company. The findings were in line with Yang and Konrad, (2011) who found positive impact of diversity on organizational innovation. Suzuki and Takemura, 2016 on the effect of diversity on innovation. The moderating role of universal diverse leaders. This shows vividly that workplace innovation in terms of education, gender, age, religion and ethnic are good drivers of innovation.

The relationship between workplace diversity (gender, age, ethnic, religion, and education) with innovation was also tested. The findings confirmed that diversity has significant relationship with innovation except gender diversity. The findings were supported with studies by (Dai, Byan & Ding, 2018; Daniela & Patrick, 2019) who found no significant relationship between gender diversity and innovation.

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter provides the summary, conclusion, recommendations, limitation of the study, contribution to knowledge and suggestions for further studies.

#### 5.2 Summary of Findings

This study examined the role of workplace diversity as a driver of innovation using Guinness Nigeria Limited. The study explains the concept of diversity and the different types in the literature. Six different hypotheses were formulated to achieve the objectives set aside for the study and the research questions asked. The first was to determine the effects of workplace diversity in terms of education, ethnic, religion, age and gender on innovation. The study found that the workforce diversity all contributed positively to innovation and accounted for about 62 percent in the variation of innovation in the company. However, ethnic diversity and religion diversity were not significant in determining the role of diversity on innovation. On this first hypothesis the null hypothesis was rejected.

The second objective was to determine if a significance relationship exist between gender diversity and innovation in the company. The objective was tested using Pearson correlation techniques and was not significant. It was concluded from the second objective that there is no significant relationship between gender diversity and innovation.

The third objective examined if significant relationship exists between ethnic diversity and innovation. The test was also conducted using the Pearson moment correlation techniques and was significant. Consequently, the null hypothesis was rejected and the study concluded that a significant relationship exists between ethnic diversity and innovation.

Furthermore, the fourth objective was to determine whether a significant relationship exists between religion diversity and innovation. The result was significant and the null hypothesis of no significant relationship was rejected.

In the fifth objective also, result confirmed that significant relationship exists between age diversity and innovation. The alternative hypothesis was accepted. Finally, as regarded the sixth objective which was to determine if relationship exists between educational diversity and

innovation. The result also confirmed a significant relationship exists between education diversity and innovation.

### **5.3 Conclusion**

The study examined the role of diversity as a driver to innovation in Guinness Nigeria Limited in Lagos State. Based on the outcome of the findings, the study concluded as follows: firstly, the effects of workforce diversity (Educational, ethnic, age, religious and gender diversity) on innovation in the organizations is positive. However, educational diversity contributed most in driving innovation in the organization. This shows that in any organization, the place of workforce diversity cannot be limited. Secondly, there exists significant relationship between educational diversity, age diversity and gender diversity on innovation while no significant relationship exists between ethnic diversity and innovation and religion diversity and innovation. This shows that out of the six objectives that were specified all of them were achieved. However, the null hypothesis was only accepted on only the fourth and the sixth objectives.

### **5.4 Recommendation for the Study**

Based on the findings and conclusion of the study, it is glaring that diversity has important role to play in driving innovation in the organization. Therefore, the study recommends as follows:

- i. Management should provide incentives for training for workers who lack the skills needed for the specific job. Also, they should support workers by making study leave accessible to those who want to go further in their educational pursuit. In addition, provision of financial assistance is necessary by promoting high performance to obtain certain performance-enhancing certification. It may be an extrinsic incentive for other staff.
- ii. Given the value and profit of the advancement offered to the company by diversity, Management of Guinness Nigeria Limited should endorse and continue to encourage diversity policies and practices in its operations.
- iii. There is need for motivation and creation of an enabling environment to ensure that workers in the organization have a better working relationship among themselves.

- iv. Training and development should be enforced in the organization to guide workers and improve their educational capacity thereby, assisting them in playing a better role to ensure that different ideas are brought into their production process.
- v. Teams of various ages must be welcomed by the management. Younger workers are skilled in the management of new ideas, which can improve the efficiency of all staff classes and of the whole company if they are shared. More experience in the organization is well-known for the older staff. By sharing these skills, the company can build stronger contacts and develop various dimensions when producing its products.
- vi. The management of the organization should ensure that there is no preferential treatment in terms of gender during employment process in order to create an avenue for different ideas. Managers should develop flexible working practices to promote gender diversity that will help female workers handle their work and personal life (balance between work and life) that will not bring about any conflicts. Furthermore, the management should also attempt to track the number of men and women within organizations, their rate of promotion for men and women and even their average income at each point of the organization by checking regularly
- vii. While the results did not provide relationship between ethnic diversity and innovation. Nevertheless, ethnic diversity has its advantages that can boost an organization's workforce and effectiveness. Management should also promote employee-to - employee contact. This helps staff to know about colleagues' values. This experience can promote employee awareness and understanding of other cultures can help to deliver new ideas successfully. The company's market coverage can also be driven by ethnic diversity. Especially when working with customers of different ethnic groups, ethnically diverse workers may generate new ideas and enhance results, in business activities. Management should therefore increase employees' cultural awareness.

### **5.5 Limitation for the Study**

Although, the study has contributed more to knowledge, however, the study faced some major challenges. First the time frame for the study was short and as a result the study was only limited to Guinness Nigeria Limited in Lagos State. Secondly, the quality of data may be a limitation due to the present pandemic, only 136 respondents were made use of out of the 150-questionnaire

distributed to the respondent. Thirdly, the quality of information collected as a response from the population cannot be calculated because the answer given by the employees reflected their opinions on the problem in their working conditions is difficult to create. Finally, due to its tight situation and scope, this study was only based on one of Nigeria's alcohol and non-alcohol providers.

## **5.6 Contribution to Knowledge**

The study has contributed to knowledge in the following areas

- i. The study added to existing literature in the area of diversity and shows that diversity is a good driver for innovation in the manufacturing sectors.
- ii. The study also shows that all workplace diversity assists in the promotion of innovation in the workplace and have relationship with innovation. However, gender diversity, age diversity and educational diversity are significant factors that drives innovation, however ethnicity and religion though seen as aspect of workforce diversity and impacted positively on innovation are not significant drivers of innovation in Guinness Nigeria limited.
- iii. The study has also showed the relationship and effect of different workplace diversity on innovation which previous literatures in this area ignored. Those that look at the various workplace diversity focused on one of the workplace diversities but this study focused on five important aspects of workforce diversity (education, religion ethnicity, gender and age) to determine if they are major drivers of innovation.
- iv. The research has collected applicable literature and developed a deep understanding of workplace diversity problems and of how companies can profit from incorporating new concepts into their goods.



## **5.7 Suggestions for further Studies**

The study examined the effect of workplace diversity on innovation using Guinness Nigeria Ltd as a case study. Despite the major contributions of the study to knowledge, there are still some areas that need to be investigated. Therefore, the following are suggested areas for further research.

- i. This study only focused on Guinness Nigeria Limited one of the providers of different drinks and beverages. Further studies can look at other manufacturing sectors that engaged in the production of drinks and beverages.
- ii. The study was carried out on only five different forms of diversity, education, ethnic, religion, age and gender. Other studies can look at other work force diversity effects on innovation.
- iii. The study focused on age diversity, gender diversity, ethnic diversity, religious diversity and educational diversity. Further research may look at other forms of diversity such as trust, technology and so on and see the roles they play with innovation.
- iv. The study also focused on the role of workplace diversity on innovation. Further research may look at the effect on the organizational performance of manufacturing industries.

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# Appendices

## Appendix A

### Questionnaire

Department of International Business

#### **Dear Respondents,**

I am a postgraduate student of International Business, School of Business, in the National College of Ireland. I am currently writing my MSc thesis on the topic 'Examining the role of workforce Diversity as a tool for innovation using Guinness Nigeria Limited in Ikeja, Nigeria as my case study. This questionnaire is to solicit your co-operation in providing me with some of the useful information that will help achieve my set objectives. I would like to mention here that the work is solely for academic purposes and would in no case be used for any reason other than this. Therefore, the information provided is regarded as being strictly confidential.

Thank you for your cooperation.

Uche Charles ORANS

#### **SECTION A: Demographic Characteristics of Respondent**

**Please indicate your choice by ticking (√) appropriately**

1. Kindly indicate your gender: Male ( ) Female ( )
2. Please indicate your age group 20-30 ( ) 31-40 ( ) 41-50 ( ) 50 and above ( )
3. Marital Status: Married ( ) Single ( ) Others ( )
4. Which Ethnic/Tribe do you belong to: Yoruba ( ) Hausa ( ) Igbo ( )  
Others ( )
5. Religion: Christianity ( ) Islam ( ) Others ( )

6. Highest Educational Qualification: PHD ( ) M. SC./MBA ( )  
 B.Sc//HND ( ) OND/NCE ( ) SSCE/GCE ( ) Others ( )
7. Work Experience: Less than 5 years ( ) 5-10 years ( ) 11-15 years 16 years and above ( )
8. Kindly indicate your designation: Manager ( ) Senior ( ) Junior ( )

**SECTION B: WORKFORCE DIVERSITY AND INNOVATION**

This segment includes items to investigate the relationship and impact of workplace diversity and innovation in Guinness Nigeria Limited

**Based on the following statement kindly pick your view. The scale of the statement is based on a rate of 1 to 5, where 1= Strongly Disagree (SD), 2= Disagree (D), 3= Undecided (U), 4= Agree (A) and 5=Strongly Agree (SA)**

<b>GENDER DIVERSITY</b>						
<b>No</b>	<b>ITEMS</b>	<b>SD</b>	<b>D</b>	<b>U</b>	<b>A</b>	<b>SA</b>
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	Male and female gender have equal opportunity for bringing different innovations in the company					
2	I enjoy bringing in new ideas with the opposite gender based on their work performance					
3	Employer do not discriminate employees based on gender opinion					
4	There is poor effectiveness leading from dissimilarity in gender					
5	Working groups are easily formed from workforce of the same gender					
<b>AGE DIVERSITY</b>						
<b>No</b>	<b>ITEMS</b>	<b>SD</b>	<b>D</b>	<b>U</b>	<b>A</b>	<b>SA</b>
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

1	Members of all different ages are included in problem solving by my team leader					
2	Group formation in workplace is affected by age difference					
3	Consensus building among employees is affected by difference in age					
4	Group effectiveness is affected by age differences					
5	Working with people of different age groups gives me no problem					
6	I derive motivation on carrying out a certain performance from staff of different age structure					

**RELIGIOUS DIVERSITY**

No	ITEMS	SD	D	U	A	SA
		1	2	3	4	5
1	My workplace performance is affected through carrying out operations with staff of different religious belief					
2	No conflict is created from interaction between colleagues with different religious beliefs in the workplace					
3	There is easy co-operation for the purpose of problem solving among colleagues from different religious background					
4	Religious practices and beliefs enable workers to be committed to their work					
5	Commitment to work in the organization is greatly enhanced by religion					

**ETHNIC DIVERSITY**

No	ITEMS	SD	D	U	A	SA
		1	2	3	4	5
1	My decision-making ability is influenced through working with colleagues from different ethnic background					
2	No conflict is created from the use of different languages for communication in the workplace					



3	There exists easy co-operation between me and other colleagues from different ethnicity					
4	Group formation and cohesion among employees is affected by language differences					
<b>EDUCATIONAL DIVERSITY</b>						
No	ITEMS	SD	D	U	A	SA
		1	2	3	4	5
1	My ability to perform the core task responsibility assigned to me is affected by my educational level and background.					
2	Conflict among employees is not encouraged by the differences in educational background.					
3	My educational background leads me to experience in the workplace					
4	Problem solving and decision-making ability is affected by working with colleagues with different educational background					
5	Working with staff of different educational background improves my performance and knowledge at workplace					
6	The different educational background which exist in the workplace generates diverse experience and through that enhances performance					
7	High effectiveness is enhanced through having employees of the same educational levels and background					
<b>INNOVATION</b>						
No	ITEMS	SD	D	U	A	SA
		1	2	3	4	5
1	Technology has brought in new ideas to the organization					
2	Technology has led to improvement in sales					
3	Technology has assisted in the expansion of the business					

4	The company welcomes new ideas from workers					
5	Different age groups in the organization has brought about new ideas					
6	The different educational qualification has assisted in innovation in the company					
7	Sales volume has increased as a result of workplace diversity					
8	Workplace diversity has led to improvement in new method of productions					
9	Diversity has led to new methods of sales					
10	Different age structure in our organization has brought about different techniques employed in production					
11	Different educational background has given us edge over our competitors					

Appendix B

**Frequency Table**

**Gender**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	88	64.7	64.7	64.7
Valid Female	48	35.3	35.3	100.0
Total	136	100.0	100.0	

**Age Group**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 20-30	2	1.5	1.5	1.5
Valid 31-40	69	50.7	50.7	52.2
Valid 41-50	57	41.9	41.9	94.1
Valid 50 and above	8	5.9	5.9	100.0
Total	136	100.0	100.0	

**Marital Status**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Married	107	78.7	78.7	78.7
Valid Single	19	14.0	14.0	92.6
Valid Others	10	7.4	7.4	100.0
Total	136	100.0	100.0	

**Ethnic group**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yoruba	53	39.0	39.0	39.0
Valid Hausa	35	25.7	25.7	64.7
Valid Igbo	45	33.1	33.1	97.8

Others	3	2.2	2.2	100.0
Total	136	100.0	100.0	

#### Religion

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Christianity	84	61.8	61.8	61.8
Islam	41	30.1	30.1	91.9
Others	11	8.1	8.1	100.0
Total	136	100.0	100.0	

#### Highest Educational Qualification

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid M. SC./MBA	70	51.5	51.5	51.5
B.Sc//HND	40	29.4	29.4	80.9
OND/NCE	16	11.7	11.7	92.6
Others	10	7.4	7.4	100.0
Total	136	100.0	100.0	

#### Work Experience

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Less than 5 years	14	10.3	10.3	10.3
5-10 years	54	39.7	39.7	50.0
11-15 years	48	35.3	35.3	85.3
Above 15 years	20	14.7	14.7	100.0
Total	136	100.0	100.0	

#### Position

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Manager	4	2.9	2.9	2.9
Senior	84	61.8	61.8	64.7

Junior	48	35.3	35.3	100.0
Total	136	100.0	100.0	

**Male and female gender have equal opportunity for bringing different innovations in the company**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	4	2.9	2.9	2.9
Disagree	9	6.6	6.6	9.6
Undecided	10	7.4	7.4	16.9
Agree	25	18.4	18.4	35.3
Strongly Agree	88	64.7	64.7	100.0
Total	136	100.0	100.0	

**I enjoy bringing in new ideas with the opposite gender based on their work performance**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	5	3.7	3.7	3.7
Disagree	8	5.9	5.9	9.6
Undecided	4	2.9	2.9	12.5
Agree	27	19.9	19.9	32.4
Strongly Agree	92	67.6	67.6	100.0
Total	136	100.0	100.0	

**Employer do not discriminate employees based on gender opinion**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	3	2.2	2.2	2.2
Disagree	8	5.9	5.9	8.1
Undecided	10	7.4	7.4	15.4
Agree	41	30.1	30.1	45.6
Strongly Agree	74	54.4	54.4	100.0
Total	136	100.0	100.0	

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Strongly Disagree	2	1.5	1.5	1.5
	Disagree	5	3.7	3.7	5.1
	Undecided	16	11.8	11.8	16.9
	Agree	33	24.3	24.3	41.2
	Strongly Agree	80	58.8	58.8	100.0
	Total	136	100.0	100.0	

**Working groups are easily formed from workforce of the same gender**

	Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	Strongly Disagree	8	5.9	5.9	5.9
	Disagree	4	2.9	2.9	8.8
	Undecided	11	8.1	8.1	16.9
	Agree	23	16.9	16.9	33.8
	Strongly Agree	90	66.2	66.2	100.0
	Total	136	100.0	100.0	

**Members of all different ages are included in problem solving by my team leader**

	Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	Strongly Disagree	2	1.5	1.5	1.5
	Disagree	7	5.1	5.1	6.6
	Undecided	13	9.6	9.6	16.2
	Agree	23	16.9	16.9	33.1
	Strongly Agree	91	66.9	66.9	100.0
	Total	136	100.0	100.0	

**Group formation in workplaces affected by age difference**

	Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	Strongly Disagree	4	2.9	2.9	2.9
	Disagree	10	7.4	7.4	10.3
	Undecided	9	6.6	6.6	16.9
	Agree	28	20.6	20.6	37.5

Strongly Agree	85	62.5	62.5	100.0
Total	136	100.0	100.0	

**Consensus building among employees is affected by difference in age**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	5	3.7	3.7	3.7
Valid Disagree	7	5.1	5.1	8.8
Valid Undecided	8	5.9	5.9	14.7
Valid Agree	24	17.6	17.6	32.4
Valid Strongly Agree	92	67.6	67.6	100.0
Total	136	100.0	100.0	

**Group effectiveness is affected by age differences**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	5	3.7	3.7	3.7
Valid Disagree	11	8.1	8.1	11.8
Valid Undecided	10	7.4	7.4	19.1
Valid Agree	27	19.9	19.9	39.0
Valid Strongly Agree	83	61.0	61.0	100.0
Total	136	100.0	100.0	

**Working with people of different age groups gives me no problem**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	2	1.5	1.5	1.5
Valid Disagree	6	4.4	4.4	5.9
Valid Undecided	5	3.7	3.7	9.6
Valid Agree	30	22.1	22.1	31.6
Valid Strongly Agree	93	68.4	68.4	100.0
Total	136	100.0	100.0	

**I derive motivation from working with people of different age group**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	4	2.9	2.9	2.9
Disagree	7	5.1	5.1	8.1
Undecided	14	10.3	10.3	18.4
Agree	40	29.4	29.4	47.8
Strongly Agree	71	52.2	52.2	100.0
Total	136	100.0	100.0	

**My workplace performance is affected through working with colleagues from different religious background**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	3	2.2	2.2	2.2
Disagree	6	4.4	4.4	6.6
Undecided	8	5.9	5.9	12.5
Agree	29	21.3	21.3	33.8
Strongly Agree	90	66.2	66.2	100.0
Total	136	100.0	100.0	

**No conflict is created from interaction between colleagues with different religious beliefs in the workplace**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	6	4.4	4.4	4.4
Disagree	11	8.1	8.1	12.5
Undecided	2	1.5	1.5	14.0
Agree	30	22.1	22.1	36.0
Strongly Agree	87	64.0	64.0	100.0
Total	136	100.0	100.0	



**There is easy co-operation for the purpose of problem solving among colleagues from different religious background**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	5	3.7	3.7	3.7
Disagree	9	6.6	6.6	10.3
Undecided	25	18.4	18.4	28.7
Agree	24	17.6	17.6	46.3
Strongly Agree	73	53.7	53.7	100.0
Total	136	100.0	100.0	

**Religious practices and beliefs enable workers to be committed to their work**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	2	1.5	1.5	1.5
Disagree	9	6.6	6.6	8.1
Undecided	6	4.4	4.4	12.5
Agree	49	36.0	36.0	48.5
Strongly Agree	70	51.5	51.5	100.0
Total	136	100.0	100.0	

**Commitment to work in the organization is greatly enhanced by religion**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	5	3.7	3.7	3.7
Disagree	11	8.1	8.1	11.8
Undecided	9	6.6	6.6	18.4
Agree	45	33.1	33.1	51.5
Strongly Agree	66	48.5	48.5	100.0
Total	136	100.0	100.0	

**My decision-making ability is influenced through working with colleagues from different ethnic background**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	4	2.9	2.9	2.9
Disagree	8	5.9	5.9	8.8
Undecided	9	6.6	6.6	15.4
Agree	34	25.0	25.0	40.4
Strongly Agree	81	59.6	59.6	100.0
Total	136	100.0	100.0	

**No conflict is created from the use of different languages for communication in the workplace**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	4	2.9	2.9	2.9
Disagree	12	8.8	8.8	11.8
Undecided	11	8.1	8.1	19.9
Agree	18	13.2	13.2	33.1
Strongly Agree	91	66.9	66.9	100.0
Total	136	100.0	100.0	

**There exists easy co-operation between me and other colleagues from different ethnicity**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	6	4.4	4.4	4.4
Disagree	7	5.1	5.1	9.6
Undecided	5	3.7	3.7	13.2
Agree	54	39.7	39.7	52.9
Strongly Agree	64	47.1	47.1	100.0
Total	136	100.0	100.0	

**Group formation and cohesion among employees is affected by language differences**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	2	1.5	1.5	1.5
Disagree	7	5.1	5.1	6.6
Undecided	3	2.2	2.2	8.8
Agree	28	20.6	20.6	29.4
Strongly Agree	96	70.6	70.6	100.0
Total	136	100.0	100.0	

**My ability to perform the core task responsibility assigned to me is affected by my educational level and background.**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	3	2.2	2.2	2.2
Disagree	6	4.4	4.4	6.6
Undecided	7	5.1	5.1	11.8
Agree	30	22.1	22.1	33.8
Strongly Agree	90	66.2	66.2	100.0
Total	136	100.0	100.0	

**Conflict among employees is not encouraged by the differences in educational background.**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	4	2.9	2.9	2.9
Disagree	11	8.1	8.1	11.0
Undecided	6	4.4	4.4	15.4
Agree	34	25.0	25.0	40.4
Strongly Agree	81	59.6	59.6	100.0
Total	136	100.0	100.0	

**My educational background leads me to experience lack of confidence in the workplace**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	6	4.4	4.4	4.4
Disagree	9	6.6	6.6	11.0
Undecided	9	6.6	6.6	17.6
Agree	33	24.3	24.3	41.9
Strongly Agree	79	58.1	58.1	100.0
Total	136	100.0	100.0	

**Problem solving and decision-making ability is affected by working with colleagues with different educational background affects**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	5	3.7	3.7	3.7
Disagree	8	5.9	5.9	9.6
Undecided	7	5.1	5.1	14.7
Agree	29	21.3	21.3	36.0
Strongly Agree	87	64.0	64.0	100.0
Total	136	100.0	100.0	

**When I am in a team of workmates with different educational level, I do my job perfectly**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	3	2.2	2.2	2.2
Disagree	7	5.1	5.1	7.4
Undecided	4	2.9	2.9	10.3
Agree	38	27.9	27.9	38.2
Strongly Agree	84	61.8	61.8	100.0
Total	136	100.0	100.0	

**The different educational background which exist in the workplace generates diverse experience  
and through that enhances performance**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	4	2.9	2.9	2.9
Disagree	16	11.8	11.8	14.7
Undecided	4	2.9	2.9	17.6
Agree	17	12.5	12.5	30.1
Strongly Agree	95	69.9	69.9	100.0
Total	136	100.0	100.0	

**High effectiveness is enhanced through having employees of the same educational levels and  
background**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	2	1.5	1.5	1.5
Disagree	8	5.9	5.9	7.4
Undecided	11	8.1	8.1	15.4
Agree	35	25.7	25.7	41.2
Strongly Agree	80	58.8	58.8	100.0
Total	136	100.0	100.0	

**Technology has brought in new ideas to the organization**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	1	.7	.7	.7
Disagree	6	4.4	4.4	5.1
Undecided	9	6.6	6.6	11.8
Agree	36	26.5	26.5	38.2
Strongly Agree	84	61.8	61.8	100.0
Total	136	100.0	100.0	

**Technology has led to improvement in sales**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	3	2.2	2.2	2.2
Disagree	11	8.1	8.1	10.3
Undecided	5	3.7	3.7	14.0
Agree	14	10.3	10.3	24.3
Strongly Agree	103	75.7	75.7	100.0
Total	136	100.0	100.0	

**Technology has assisted in the expansion of the business**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	7	5.1	5.1	5.1
Disagree	12	8.8	8.8	14.0
Undecided	3	2.2	2.2	16.2
Agree	27	19.9	19.9	36.0
Strongly Agree	87	64.0	64.0	100.0
Total	136	100.0	100.0	

**The company welcomes new ideas from workers**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	5	3.7	3.7	3.7
Disagree	10	7.4	7.4	11.0
Undecided	6	4.4	4.4	15.4
Agree	26	19.1	19.1	34.6
Strongly Agree	89	65.4	65.4	100.0
Total	136	100.0	100.0	

**Different age groups in the organization has brought about new ideas**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	9	6.6	6.6	6.6
Disagree	16	11.8	11.8	18.4
Undecided	6	4.4	4.4	22.8
Agree	17	12.5	12.5	35.3
Strongly Agree	88	64.7	64.7	100.0
Total	136	100.0	100.0	

**The different educational qualification has assisted in innovation in the company**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	4	2.9	2.9	2.9
Disagree	11	8.1	8.1	11.0
Undecided	9	6.6	6.6	17.6
Agree	34	25.0	25.0	42.6
Strongly Agree	78	57.4	57.4	100.0
Total	136	100.0	100.0	

**Sales volume has increased as a result of workplace diversity**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	3	2.2	2.2	2.2
Disagree	16	11.8	11.8	14.0
Undecided	3	2.2	2.2	16.2
Agree	20	14.7	14.7	30.9
Strongly Agree	94	69.1	69.1	100.0
Total	136	100.0	100.0	

**Workplace diversity has led to improvement in new method of productions**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	5	3.7	3.7	3.7
Disagree	9	6.6	6.6	10.3
Undecided	19	14.0	14.0	24.3
Agree	24	17.6	17.6	41.9
Strongly Agree	79	58.1	58.1	100.0
Total	136	100.0	100.0	

**Diversity has led to new methods of sales**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	4	2.9	2.9	2.9
Disagree	12	8.8	8.8	11.8
Undecided	1	.7	.7	12.5
Agree	28	20.6	20.6	33.1
Strongly Agree	91	66.9	66.9	100.0
Total	136	100.0	100.0	

**Different age structure in our organization has brought about different techniques employed in production**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	3	2.2	2.2	2.2
Disagree	7	5.1	5.1	7.4
Undecided	11	8.1	8.1	15.4
Agree	18	13.2	13.2	28.7
Strongly Agree	97	71.3	71.3	100.0
Total	136	100.0	100.0	



**Different educational background has given us edge over our competitors**

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	5	3.7	3.7	3.7
Disagree	12	8.8	8.8	12.5
Undecided	5	3.7	3.7	16.2
Agree	28	20.6	20.6	36.8
Strongly Agree	86	63.2	63.2	100.0
Total	136	100.0	100.0	

## Regression

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
Gender	136	12.00	20.00	18.2574	2.00738
Age	136	12.00	30.00	27.3088	3.42651
Religion diversity	136	11.00	25.00	22.2206	2.70169
Ethnic diversity	136	10.00	20.00	18.0809	2.06220
Educational diversity	136	15.00	25.00	23.0294	2.55297
innovation	136	31.00	55.00	50.9044	4.36633
Valid N (listwise)	136				

**Notes**

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		\Desktop\DIVERSITY.sav
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	Split File	<none>
	N of Rows in Working Data File	136
	Definition of Missing	User-defined missing values are treated as missing.
Missing Value Handling	Cases Used	Statistics are based on cases with no missing values for any variable used.

Syntax	REGRESSION	
	/MISSING LISTWISE	
Resources	/STATISTICS COEFF OUTS BCOV R ANOVA	
	CHANGE	
	/CRITERIA=PIN(.05) POUT(.10)	
	/NOORIGIN	
	/DEPENDENT INNOVATION	
	/METHOD=ENTER EDUCATIONAL ETHNIC	
	RELIGIOUS AGE GENDER	
	/RESIDUALS DURBIN.	
	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.04
	Memory Required	3604 bytes
	Additional Memory Required for Residual Plots	0 bytes

[DataSet0] C:\Users\n\Desktop\DIVERSITY.sav

**Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	GENDER, ETHNIC, RELIGIOUS, AGE, EDUCATIONAL <sup>b</sup>		Enter

a. Dependent Variable: INNOVATION

b. All requested variables entered.

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					R Square Change	F Change	df1	df2
1	.796 <sup>a</sup>	.646	.617	6.47873	.246	8.490	5	

a. Predictors: (Constant), GENDER, ETHNIC, RELIGIOUS, AGE, EDUCATIONAL

b. Dependent Variable: INNOVATION

**ANOVA<sup>a</sup>**

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	1781.856	5	356.371	8.490	.000 <sup>b</sup>
Residual	5456.614	130	41.974		
Total	7238.471	135			

a. Dependent Variable: INNOVATION

b. Predictors: (Constant), GENDER, ETHNIC, RELIGIOUS, AGE, EDUCATIONAL

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	25.859	5.183		4.989	.000
EDUCATIONAL	.631	.192	.402	3.288	.001
ETHNIC	.465	.287	.198	1.620	.108
RELIGIOUS	.163	.251	.072	.647	.519
AGE	.620	.232	.315	2.676	.008
GENDER	.412	.230	.174	1.790	.076

a. Dependent Variable: INNOVATION

**Coefficient Correlations<sup>a</sup>**

Model		GENDER	ETHNIC	RELIGIOUS	AGE	EDUCATIONAL	
1	Correlations	GENDER	1.000	.079	-.059	-.534	.105
		ETHNIC	.079	1.000	-.341	.106	-.628
		RELIGIOUS	-.059	-.341	1.000	-.399	-.076
		AGE	-.534	.106	-.399	1.000	-.259
		EDUCATIONAL	.105	-.628	-.076	-.259	1.000
1	Covariances	GENDER	.053	.005	-.003	-.029	.005
		ETHNIC	.005	.082	-.025	.007	-.035
		RELIGIOUS	-.003	-.025	.063	-.023	-.004
		AGE	-.029	.007	-.023	.054	-.012
		EDUCATIONAL	.005	-.035	-.004	-.012	.037

a. Dependent Variable: INNOVATION

**Residuals Statistics<sup>a</sup>**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	34.1622	53.4862	47.7353	3.63303	136
Residual	-24.06506	12.37893	.00000	6.35762	136
Std. Predicted Value	-3.736	1.583	.000	1.000	136
Std. Residual	-3.714	1.911	.000	.981	136

a. Dependent Variable: INNOVATION

## Correlations

**Notes**

Output Created		14-JUL-2020 11:42:49
Comments		
	Data	C:\Users
		\Desktop\DIVERSITY.sav
	Active Dataset	DataSet0
Input	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	136
	Definition of Missing	User-defined missing values are treated as missing.
Missing Value Handling	Cases Used	Statistics for each pair of variables are based on all the cases with valid data for that pair.
		<b>CORRELATIONS</b>
		/VARIABLES=INNOVATION GENDER
		/PRINT=TWOTAIL NOSIG
		/MISSING=PAIRWISE.
	Processor Time	00:00:00.02
Resources	Elapsed Time	00:00:00.03

[DataSet0] C:\Users\n\Desktop\DIVERSITY.sav

**Correlations**

		INNOVATION	GENDER
INNOVATION	Pearson Correlation	1	.076
	Sig. (2-tailed)		.377
	N	136	136
GENDER	Pearson Correlation	.076	1
	Sig. (2-tailed)	.377	
	N	136	136

## Correlations

### Notes

Output Created		14-JUL-2020 11:42:34
Comments		
	Data	C:\Users
	Active Dataset	\Desktop\DIVERSITY.sav
Input	Filter	DataSet0
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	136
	Definition of Missing	User-defined missing values are treated as missing.
Missing Value Handling	Cases Used	Statistics for each pair of variables are based on all the cases with valid data for that pair.
Syntax		CORRELATIONS /VARIABLES=INNOVATION AGE /PRINT=TWOTAIL NOSIG /MISSING=PAIRWISE.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.05

[DataSet0] C:\Users\n\Desktop\DIVERSITY.sav

### Correlations

		INNOVATION	AGE
INNOVATION	Pearson Correlation	1	.372**
	Sig. (2-tailed)		.000
	N	136	136
AGE	Pearson Correlation	.372**	1
	Sig. (2-tailed)	.000	
	N	136	136

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

## Correlations

### Notes

Output Created		14-JUL-2020 11:42:18
Comments		
Input	Data	C:\Users
	Active Dataset	\Desktop\DIVERSITY.sav
	Filter	DataSet0
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	136
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each pair of variables are based on all the cases with valid data for that pair.
Syntax		CORRELATIONS /VARIABLES=INNOVATION RELIGIOUS /PRINT=TWOTAIL NOSIG /MISSING=PAIRWISE.
Resources	Processor Time	00:00:00.03
	Elapsed Time	00:00:00.04

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### Correlations

		INNOVATION	RELIGIOUS
INNOVATION	Pearson Correlation	1	.318**
	Sig. (2-tailed)		.000
	N	136	136
RELIGIOUS	Pearson Correlation	.318**	1
	Sig. (2-tailed)	.000	
	N	136	136

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

## Correlations

### Notes

Output Created		14-JUL-2020 11:42:00
Comments		
	Data	C:\Users
	Active Dataset	\Desktop\DIVERSITY.sav
Input	Filter	DataSet0
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	136
	Definition of Missing	User-defined missing values are treated as missing.
Missing Value Handling	Cases Used	Statistics for each pair of variables are based on all the cases with valid data for that pair.
Syntax		CORRELATIONS /VARIABLES=INNOVATION ETHNIC /PRINT=TWOTAIL NOSIG /MISSING=PAIRWISE.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.03

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### Correlations

		INNOVATION	ETHNIC
INNOVATION	Pearson Correlation	1	.241**
	Sig. (2-tailed)		.005
	N	136	136
ETHNIC	Pearson Correlation	.241**	1
	Sig. (2-tailed)	.005	
	N	136	136

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

## Correlations

### Notes

Output Created		14-JUL-2020 11:41:36
Comments		
Input	Data	C:\Users
	Active Dataset	\Desktop\DIVERSITY.sav
	Filter	DataSet0
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each pair of variables are based on all the cases with valid data for that pair.
Syntax		CORRELATIONS /VARIABLES=INNOVATION EDUCATIONAL /PRINT=TWOTAIL NOSIG /MISSING=PAIRWISE.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.01

[DataSet0] C:\Users\n\Desktop\DIVERSITY.sav

### Correlations

		INNOVATION	EDUCATIONAL
INNOVATION	Pearson Correlation	1	.416**
	Sig. (2-tailed)		.000
	N	136	136
EDUCATIONAL	Pearson Correlation	.416**	1
	Sig. (2-tailed)	.000	
	N	136	136

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