

**WORKFORCE DIVERSITY AND ACADEMIC STAFF PRODUCTIVITY IN  
PRIVATE CHARTERED UNIVERSITIES IN CENTRAL UGANDA**

**BY**

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**Reg. No: 2019-08-09970**

**A THESIS SUBMITTED TO THE COLLEGE OF EDUCATION, OPEN, DISTANCE  
AND E-LEARNING IN PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR THE AWARD OF A DEGREE OF DOCTOR OF PHILOSOPHY IN  
EDUCATIONAL MANAGEMENT, KAMPALA  
INTERNATIONAL UNIVERSITY**

**OCTOBER, 2023**

## **DECLARATION**

I declare that this is my original work and that any other literature and academic works used are properly cited and duly referenced. I also declare that this work has never been submitted to any university or higher institution of learning for an academic award.

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## APPROVAL

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## **DEDICATION**

I dedicate this work to my beloved parents; my late daddy, Toriola Basitu Akande and my mother, Babatunde Funmilayo Toriola for their unconditional love. I also dedicate this book to my beloved husband, Anthony Seyinde for his untiring love and support during my entire period of study and for insuring that I complete my course successfully. I pray to God Almighty to reward him abundantly for his efforts towards my education. I bestow this work to my children Seyinde Esther and Seyinde Eniola for their understanding and support during my entire study. I devote this work to those who push me to gain more knowledge, expertise and skills; my lecturers, friends and supervisors and to this mighty scientific edifice Kampala International University.

## ACKNOWLEDGEMENTS

To Almighty God, I owe the highest gratitude for preserving me to witness the successful completion of my study. Equally, I am sincerely grateful to my family for their financial support all through my academic program and for their fervent prayers, advice and words of caution, motivation and encouragement. I would like to acknowledge everyone who played an important role in my academic accomplishments. To my husband, Seyinde Anthony, who was very supportive of me during my study; my gratitude. To my kind and supportive supervisors, Dr. Sofia Sol T. Gaité and Dr. Speciose Asiimwe who guided me during my dissertation writing; I am indebted to you. Their insights and scholarly advice helped me to accomplish the study in time and as had been required by the University.

I want to take the opportunity to thank all my lecturers in Kampala International University for their professional support, directly or indirectly, in making the undertaking of this research work success. Special thanks to Dr. Muhammad Kibuuka, for guiding the data analysis phase, which added to the quality of this work. I appreciate the support of my able Head of Department, Mr. Siraje Kamulegeya, my lecturers, Prof. Ijeoma Anumaka, Assoc. Prof. Janice Busingye, Assoc. Prof. Vincent Kayindu, Dr Ganatusanga Haroon, Dr. Wandiba, Augustine, Dr. Maurice Bakaluba Tamale, Dr. Margaret Kareyo, Dr. Malinga Ramadan and Dr. Awak Ahmed, for sharing their expertise, guidance and encouragement. And I also want to thank the members of the Doctoral Committee of the College of Education, Open, Distance and E-learning for their comments, suggestions and their contributions to improve this work.

I also want to thank all those who participated in my study; the academic staff from the six chartered universities, your contributions are highly appreciated. And for all those who in one way or another have been with me in this journey, thank you very much. God bless you all.

## **LIST OF ACRONYMS/ABBREVIATIONS**

AMO	Ability, Motivation and Opportunity
ANOVAOne	Way Analysis of Variance
CEO	Chief Executive Officer
COVID 19	Corona Virus
HEI'S	Higher Education Institutions
HR	Human Resource
HRD	Human Resource Development
NCHE	National Council for Higher Education
OLS	Ordinary Least Square Regression
SIT	Self Inventory Test
UOTIA	Universities and other Tertiary Institutions Act

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## ABSTRACT

The study investigated the relationship between workforce diversity and academic staff productivity in private chartered universities in Uganda. The specific objectives were; to examine the relationship between gender diversity and academic staff productivity; to assess the relationship between age diversity and academic staff productivity; to determine the relationship between nationality and academic staff productivity and; to establish the relationship between workforce diversity and academic staff productivity. Similarity /Attraction Theory by Byrne (1971) and Adams Equity Theory (1960) guided the study. The research employed a descriptive cross - sectional survey design and qualitative and quantitative approaches. The study was carried out in six chartered private universities of Central Uganda. A sample of 375 respondents was obtained from a population of 1109 using Krecjie and Morgan table. Simple random sampling technique was used to select respondents who were the academic staff. Data were collected using questionnaire and interview guide. Quantitative data were analysed using frequencies, means and standard deviations, ANOVA (one-way analysis of variance), student's two independent samples, t-test and OLS (ordinary least square) regression. While qualitative data were arranged thematically and reported normatively. The findings revealed that gender diversity has no significant relationship with academic staff productivity ( $t=0.6520$ ,  $p=0.515$ ); however, there were significant differences in research productivity between male and female academic staff ( $t=2.0270$ ,  $p=0.043$ ), with males being more productive than females. Age diversity has no significant relationship with academic staff productivity but it significantly affects teaching productivity ( $F=2.899$ ,  $p=0.032$ ), with academic staff in the middle age of 31 - 50 years, being more productive than those in lower and upper age brackets. In general, nationality diversity had no significant relationship with academic staff productivity ( $F=0.016$ ,  $p=0.997$ ). Overall, workforce diversity (measured by gender, age and nationality) had no significant effect on academic staff productivity; workforce diversity showed a small insignificant contribution towards variations in academic staff productivity ( $R\text{-squared} = 0.0153$ ;  $F = 0.74$ ;  $p= 0.6362$ ), accounting for only 1.53% towards variations in academic staff productivity. The research concluded that; workforce diversity (age, gender and nationality) is not significantly related to academic staff productivity in private chartered universities in Central Uganda. The study recommends that the management of universities should draft research policies with affirmative action to boost research productivity of the female staff and rewards for research outputs with extra incentives. Management of universities must issue that when teaming up staff for teaching, research and community service to mix up with age groups.

# CHAPTER ONE

## INTRODUCTION

### 1.0 Introduction

In this chapter the researcher discussed the background of the study, the historical perspective, the theoretical perspective, the conceptual perspective, the contextual perspective, the statement of the problem, the purpose of the study, the specific objectives of the study, the scope of study and the significance of the study.

### 1.1 Background of the Study

The study deals with workforce diversity and academic staff diversity in private chartered universities in Central Uganda. The background of the study provides the basis of the study. To this effect, it is presented in four perspectives: historical, theoretical, conceptual and contextual. The historical perspectives outline the evolution of the problem. In the theoretical perspective, the theory that informs the study is explained. At the conceptual level, key study variables are explained. The contextual perspective deals with the situation analysis.

#### 1.1.1 Historical Perspective

Academic staff productivity is the rate at which lecturers achieve individual given objectives about the institution goal achievement. The level of lecturer's productivity differs from one lecturer to another. The primary duties of faculty include effective classroom teaching, academic advising and counselling of students, participation in departmental committee work, continuous development of the curriculum through assessment, applied research or scholarly activity, and service such as assisting in recruitment of students and community service. (<https://zenodo.org/record/1111111/files>)

Workforce diversity is the collective mixture of employee's differences and similarities; work force is widely recognized as a key issue facing today's human resource managers and Chief Executive Officer (CEO) (William, Parker & Turner, 2018). Workplace diversity first emerge in mid 1960s following the introduction of equal employment laws and affirmative laws. (Dong, 2021). Workforce diversity is a complex phenomenon to manage in an organization. The management of workforce diversity as a tool to increase organizational productivity cannot be ruled out especially with the current changes sweeping across the globe (Ongorl & Evans, 2007). The impact of workforce diversity has not been a major problem in Africa

before as much as it is today. The freedom of economics and structural adjustment policies opened doors to free market economies especially in Africa. This policy brought about in free movement of labor as a commodity which resulted in the diverse workforce across the continent. The privatization of most of the state-owned enterprises like universities in Sub-Saharan Africa especially Uganda also created an open door for migration of labor from all over the world.

In the global arena, the current context under the threat of the pandemic as a result of COVID-19 is causing a series of transformations in the different spheres of social, political, labor and economic life. Different governments have launched emergency policy initiatives based on the suspension of classes and the closure of educational centers to continue teaching activities from homes telemetrically through the use of information and communication technologies to be able to stop the number of infections (Zhang *et al*, 2020).

The workplace being part of a diverse community like educational institutions has to reflect the same values in operations and very importantly, its human resource. Workforce diversity implies inclusion of individuals from all walks of life into the workforce . It also acknowledges that people vary in abilities, gender, socio-cultural background, age and experiences. (<https://ivypanda.com>).

In the era of globalization, diversity in the education environment is about more than gender, race, and ethnicity. Diversity in the workplace includes employees with diverse religious and political beliefs, education, socioeconomic background, sexual orientation, cultures and even disabilities. Norway ranks number one as the most diverse workforce in the world according to the research study by Oxford Economics and commissioned by Forbes insight. (<https://www.td.org> >td-magazine). There are some diverse companies around the world like Johnson and Johnson, Mastercard , Accenture and others. And workplace diversity is becoming a more pressing issue for employees and stakeholders alike. Most of the employees value diversity in workplace but some workplace value gender equality practices with higher profits and productivity.

The work productivity of an individual is an organizational asset that can be equated to progress and success. It provides satisfaction to the academic staff, the organization, and other stakeholders. Regardless the current situation, managers should focus on both leading

the academic staff and responding to the needs of academic staff who are more ethnically and culturally diverse, older, and in greater need of child and elder care. Leaders in both the public and the private universities are focusing more attention on the issue of diversity and productivity. Whether the goal is to be an employer of choice, to provide excellent customer service, or to maintain a competitive edge, diversity is increasingly recognized and utilized as an important organizational resource (Zhu *et al.*, 2020). Work productivity is also important in terms of providing sound and quality service to different stakeholders. In a related study, Giuliano *et al.*, (2017) affirmed that corporate social responsibility (CSR) has certain benefits to productivity. To sustain a high impact and satisfaction guaranteed output, training is essential as revealed by Wentling and Palma-Rivas (2000) in their study where employer-sponsored training and workforce productivity relationship is multidimensional. Furthermore, some academic staff simply like to multitask therefore, a study by Tetteh and Attiogbe (2019) found that schooling and working at the same time results in less time for studies which affects academic productivity.

Research on workforce diversity did not appear in public management until the late 1980s and early 1990s (Wise & Tschirhart, 2000). While attention prior to that had focused on some detail on affirmative action, recruitment, and integration in public organizations (Ricucci, 1986), there had not been much focus on how workforce diversity influences organizational performance or productivity. Some public management scholars in the area of diversity attribute the shift in attention away from recruitment and toward post-hiring stage management. Since 1990, public management scholars have been moving more and more toward the approach to diversity, whether they reflect the continuum directly or rather some version of it. The 21<sup>st</sup> century saw the changing of human resource practices toward diversity from the pre-hiring stage to the post hiring stage. This is when the issues of performance or productivity of the diverse workforce were emphasized.

Leaders and managers within organizations are primarily responsible for the success of diversity policies because they must ensure that the policies are effective. Instead of treating every academic staff alike to recognizing and responding to those differences, it is a way to ensure academic staff and greater productivity. The most important issues of workforce diversity are to address the problems of discrimination in terms of gender, age, ethnicity, nationality and education back ground. When diversity is not managed properly, there will be a potential for higher turnover, difficult in communication and inter personal conflicts.



Overall, it will be adversarial to organization's performance, profitability and reputation (Hargreaves *et. al*, 2020)

Productivity involves not only normal academic staff but also those with disabilities. Jammaers *et al.* (2018) discussed and identified three types of discursive practices that affect a person with a disability. Battaglio and French, (2018) mentioned that in their study the effect of organizational factors shows higher levels of self-sacrifice. We can apply concepts of productivity in any workplace like the study of Bhatia and Mahendru, (2014) wherein they showed that the foreign sector banks have the highest average for all the productivity parameters. On the lighter side, Karl *et al.*, (2013) suggested that "you are what you wear" because wearing an attire influences one's productivity and personality. Satisfaction with nonmaterial job attributes affects perceived job productivity (Taylor *et al.*, 2013). This result is very humbling to hear since more people value money than any other things, yet still, some individual's stay simple.

Corsi and D. Ippoliti, (2013) concluded that investigating productivity in the public sector seems very useful for productive units. Negative approaches also confront productivity like what Siltala, (2013) found, neglecting basic work affects the sense of self-efficacy of the academic staff. This unsettling result can affect the organization in several ways. Pendleton and Robinson, (2010) showed that stock plans need other methods of employee participation. Academic staff participation is very critical if an organization wants to meet its goals. With this idea at hand, selected Human Resource Development (HRD) sub-systems found selected management styles to have a significant impact on Human Resource (HR) effectiveness. The study assessed the demographic profiles and work productivity of selected academic staff from a tertiary education institution in Central Luzon, Philippines. At the same time, analyzed the determinants of work productivity among the selected academic staff before the COVID-19 pandemic. The study can have a great impact on the educational service and how do they serve as leverage to satisfy both ends of the rope, the students, and the organization.

While attention had focused on some detail on affirmative action, recruitment, and integration in public organizations, there had not been much focus on how workforce diversity influences organizational performance. Some public management scholars in the area of diversity attribute the shift in attention away from recruitment and toward post-hiring stage management to Public management scholars have been moving more and more toward this model of approach to diversity, whether they reflect the continuum directly or rather some

version of it (Ricucci, 2002). The 21<sup>st</sup> century saw the changing of human resource practices toward diversity from the pre-hiring stage to the post hiring stage. This is when the issues of performance or productivity of the diverse work force were emphasized.

According to Su (2017), Taylor suggested that management revolves around the main problem of “improving labor productivity” which put forward the basic theory of management and organization, mainly including norm of work, specialized management function, management exception principles and others for organizations survival and management. It should take into considerations whether organizations culture or diversity and atmosphere of the organizations are suitable according to the organizations goal and the corresponding style. According to Ferraro (2016), Taylor’s concept of management is relevant today because the principles are simple, employees and management should work together to maximize production/ productivity.

### **1.1.2 Theoretical Perspective**

This research study on workforce diversity and academic staff productivity was rooted on two theories. Similarity/attraction theory by Byrne, (1971) and Equity Theory by Adam Stacey (1960). The Similarity/attraction theory, which posits that people like, and are attracted to others who are similar, rather than dissimilar, to themselves; "birds of the same feather flock together." Social scientific research has provided considerable supports for tenets of the theory since the mid-1900s. Researchers from a variety of fields such as marketing, political science, social psychology, and sociology have contributed to and gleaned information from empirical tests of similarity/attraction theory by Byrne, (1971). The theory provides a parsimonious explanatory and predictive frame work for examining how and why people are attracted to and influenced by others in their social worlds like academic institutions.

On the other hand, academic staff productivity was rooted on Equity Theory by Adam Stacey (1960). John Stacey Adams, a behavioural psychologist, developed the equity theory which describes the relationship between the perception of fairness and worker motivation. People typically value fair treatment. Successful entrepreneurs recognize this and structure their small-business workplace to reward people according to their contributions. They also recognize that people have needs.

Equity theory has received more attention lately from human resource professionals especially regarding the fairness of outcomes. Equity, or more precisely, inequity is a major concern of industry, labour, and government. The fairness of exchange between employees and employer is not usually perceived by the employees as simply as an economic matter, an element of relative justice is involved. Equity theory could be applied to any social situation in which an exchange takes place (for example, between a [husband] man and his wife, between football team mates, and between employee and his employer). When two people exchange something, there is a possibility that one or both will feel that the exchange was inequitable. This is the case frequently when an individual exchange his services for pay (Adams, 1963).

Adams (1965) defines inequity as "...inequity exists for person whenever he perceives that the ratio of his outcomes to inputs and the ratio of others outcomes to others inputs are unequal". It follows that inequity results not only when a person is under-benefited but also when he is over-benefited. An important issue of the equity theory is the emphasis on the individual perception of what exists, even though it may not be real. The perception of inequity is based on comparing the individual's ratio with the comparison others ratio (for example, when an employee in another state receives \$4000 more for the same job, no inequity is experienced, but a co-worker in the same company with the same abilities and skills, if he or she receives a pay raise, inequity may be experienced). The result of inequity is tension. If an individual experience a deficit, an anger results, if he or she receives more than others, a feeling of guilt develops. Individuals will use several strategies to cope with tension and guilt that will be discussed later (Miner, 1980).

The theory can be applied in academic institutions like private universities where there must be a fair balance to be struck between an employee's/ academic staff inputs" (hard work, skill level, acceptance, enthusiasm, and so on) and their "outputs" (salary, benefits, intangibles such as recognition, and more). Finding the fair balance helps to achieve a strong and productive relationship with the employee/academic staff, with the overall result being contented, motivated employees/academic staff and effective productivity.

Two theories were employed in this study because one theory which is Similarity/Attraction Theory was for the independent variable which is workforce diversity and the other theory which is Equity theory is for the dependent variable which is academic staff productivity and these two theories complement with each other.

### **1.1.3 Conceptual Perspective**

Workforce diversity has been widely used to refer to the demographic composition of a workforce. In empirical studies, workforce diversity is usually measured using the compositional approach (Tsui & Gutek, 2000) which focuses on the distribution of demographic attributes for example age, nationality, ethnicity and gender within workforce. Studies of workforce diversity directly parallel theme thus that have been used to study organizational demography, which was closely related field of study. Researchers studying workforce diversity and organizational demography both assess the extent to which members of an organizational unit are (dis)similar to each other.

Workforce diversity refers the systematic and planned commitment by the organizations to recruit, retain, reward and promote a heterogeneous mix of academic staff. Organizations that develop experience in and reputations for managing diversity likely attract the best personnel (Brown, 2017). Diversity refers to the co-existence of academic staff from various socio-cultural backgrounds within the academic institutions. There exist claims that diversity has an influence on almost every facet of higher education: “access and equity, teaching methods and student learning, research priorities, quality, management, social relevance, finance and others. (Meek & Wood, 2018).

The relevance of a study of workforce diversity cannot be overlooked or underestimated. According to Stadtman (2017), that diversity entails availability of higher education opportunities, gives a wider range of learning choices, creates a match between the needs and capabilities of students and the education provided, gives institutions the ability to choose their mission and confine their activities, it responds to societal pressures and becomes prerequisite of tertiary education freedom and self-sufficiency. All things considered drives Higher Education Institutions (HEIS) to manage diversity remains almost inconclusive and is worth being studied.

Workforce diversity refers to organizations that are becoming more heterogeneous with the mix of people in terms of gender, age, race, and education background (Robbins, 2018). A diverse workforce, for instance, includes gender, age, nationality, ethnicity, and education background and others. According to Robbins (2018), workforce diversity has important implications toward management practices and policies. Frequently, diversity is viewed in a limited fashion, primarily addressing issues of race or gender differences, and linked to the laws providing protected status to certain groups. Broader definitions of diversity were listed such as religion, cultural background, academic background, gender, age, ethnic, language and others to encompass most characteristics that individuals possess that affect the way they think and do things. In this study workforce diversity is conceptualize in terms of gender diversity, age diversity and nationality diversity. Age diversity refers to the acceptance of different ages in a professional environment, while gender diversity refers to fair representation of people of different genders and nationality diversity: refers to the presence of people from a variety of nationality background from different countries who are working the academic institutions.

Productivity refers to an assessment of the efficiency of a worker or group of workers. In actual terms, productivity is a component which directly affects the company's profits (Sels *et al.*, 2006). Productivity may be evaluated in terms of the output of an employee in a specific period of time. Typically, the productivity of a given worker will be assessed relative to an average out for employees doing similar work. It can also be assessed according to the number of units of a product or service that an employee handles in a defined time frame (Piana, 2001). As the success of an organization like academic institutions rely mainly on the productivity of its employees/academic staff, therefore, academic staff productivity has become an important objective for academic institution (Sharma & Sharma, 2014).

In this study, academic staff productivity is conceptualized in terms the three functions of higher education: teaching productivity, research productivity and community service or involvement productivity. Productivity in education is taken as the search patterns of school organization that produce the best student's outcome (Levin, 1993). The idea of production for education depends on seeing education being a production process which means that inputs are transformed into outputs in a standard way.

Teaching productivity can be described in terms of preparing the class, research and scholarly activities, students research supervision, supervising internship and school practice, working on students' activities, interacting with the students outside the classroom and other activities

the lecturer is doing for the students to learn efficiently and effectively. (Townsend & Rosser, 2017). Teaching productivity cannot be measured with what the lecturers are doing inside the classroom but it goes beyond the classroom. The lecturer attends to the students outside the classroom like consultations if they have problems or students need more clarifications of the course. Sometimes the lecturer can act also as guidance counsellor giving advice to students when they have problems and many other functions. The lecturer can bring her work home.

While, research productivity is a life-long process which sharply increases to a peak early in life and declines at retirement. It is measured as the quantity or quality of art if acts produced by academic staff. Research is one of the functions of higher education. It is important for the lecturers in the tertiary institution to do research. The academic staff in higher education are the main research resource. The dynamic of inducing academic staff research culture has been for decades and is challenging. Research is supporting growth and effectiveness of education institutions. According to Khan *et al.* (2015), academic staff importance for research is measured by department support, interest and value for research. Academic staff involved in demanding activities are less likely to publish while those who are overseeing postgraduate students or those who are experts in research methodologies were more productive. In the research study conducted by Mantikayan and Abdulgani (2018) it was found out that research productivity of academic staff is influenced by individual factors such as efficacy, affiliation, motivation and others. Institutional factors also include staff support, advising and mentoring, resources, rewards and others. To achieve the culture of research, motivation and over-all wellbeing is related to faculty success. In the study conducted by Khan *et al.* (2015), that publications are the key fruitage of scientific research and the modes of transmitting new findings.

And, community service or community involvement activities are conceived of as a virtually identical to types of unpaid work activities traditionally engaged in by volunteers but may also be civic participation such as working in non-profit organizations serving on community. Community involvement or service like volunteerism is a typically prosocial orientation. (Dunlap, 2000). Community service or involvement is one of the three functions of higher education and there is a widespread support for community involvement or service from different organizations especially from educational institutions. In partnership with educators have helped to design and refine with educational initiatives in which students are also involved. Community service or involvement initiatives focus on the methods used to get people involved pointing out that requirements to engage within community contexts and

reduce intrinsic to perform. (Stukas & Dunlap, 2002). Community involvement or service promoted by educational institutions and the community may also further cement bonds which may help and support those in need and by facilitating actions between members of the community. Some higher educational institutions try to implement projects in certain communities that can help the residents of the said communities. Some projects can be related on environment like cleaning the area, plant trees and teach the residents how to segregate wastes and others. Others may teach some youths some skills which can help them to do productive things to themselves. Also, if there is a school within the area, they can help teachers in teaching pupils/students and many others. Having involve in community service is important for academic staff as part of achieving the goals of institution of higher learning.

#### **1.1.4 Contextual Perspective**

Human resource is an important asset for any organization, and as such, having a diversified workforce is a primary concern for most organizations. Although it has become necessary for organizations to employ a diversified workforce, at the same time, it has become quite challenging for organizations with increasing diversified workforce to reap the benefits of diversity while managing its potentially disruptive effects (Kreitz, 2017) and (Saxena, 2018). Organizations like higher education institution have recognized the fact that it is through the collective effort of its diversified workforce that monetary resources are harnessed to achieve organizational goals.

According to the Universities and Other Tertiary Institutions [UOTIA] Act of 2001 (as amended in 2006), by having a charter, it means that such a university is already fully licensed and is now comparable to a public university (Uganda Government, 2001). As a result, society expects such a university to play its core role of conducting high-level teaching, research and community engagement. Unfortunately, both public and private universities in Uganda are reportedly not adequately playing their research function. According to the National Council for Higher Education (NCHE) (2018), the research productivity of the academic staff of most private universities in Uganda have remained low. In the NCHE's report of 2015/16 on the state of higher education in Uganda, it was reported that the productivity of PhD academic staff in terms of publication, for instance, was less than 10 publications in over 20-year period per staff. This was worrying since the private universities tend to enrol a large number of students comparable to the number of academic staffs that they employ.

Previous research has shown that majority of the lecturers in Ugandan public universities are underperforming their job or not productive specifically, the study of Nassuna (2017) indicates that over 80% of Makerere university lecturers who participated as respondents revealed that they did not conduct all the lectures assigned to them and 70% were not regularly available to supervise research students allocated to them. The study of Kakulu (2016), revealed that over 78% of Kyambogo University lecturers who participated as respondents failed to teach all the lectures assigned to them, with 67% of them been inadequate prepared prior to delivering most of the lectures to students and 56% delaying to evaluate students, thereby causing the students, especially at the postgraduate level, to miss graduating in time. According to Ddungu (2017), most the lecturers assigned to supervise research students do not guide the students as scheduled even when the students make efforts to fix appointments prior to meeting them.

The lecturers frequently call off the appointment at the last minute and postponed the supervision to another on fixed date, citing being caught up in other research projects. Furthermore, the level of most of the lecturers participating in community service is far below expectations (Ddungu, 2018a), and their involvement in research and publication leaves a lot to be desired (Ddungu, 2018b). Similar findings appear in the study of Wakida, Maling and Obua (2018), when they conducted a study in Mbarara University of Science and Technology. The preceding studies indicate that the majority of lecturers in most public universities in Uganda are underperforming or less productive in their jobs. The underperformance or low productivity however does not take place in a vacuum but under the influence of various factors.

In the study conducted on “Motivation Tools and Work Productivity of Academic Staff in Private Universities in Central Uganda” it was found out that the level of academic staff work productivity was low. This means that academic staff were unmotivated leading to low productivity, (afribary.com. -deliv). While in the study conducted by Ssemugenyi (2013), on “Gender and Work Productivity of Academic Staff in Selected Private Universities in Kampala City, Uganda”, the findings revealed that work productivity between males don’t significantly differ among male and female academic staff.



While in the study conducted by Boaz, et.al., (2020), on “Motivation and Academic Staff Research Productivity in Chartered Universities in Uganda”, it was found out that motivation factor of intrinsic motivation is imperative for research productivity but extrinsic motivation has marginal contribution to research productivity of academic staff. Further on, the study conducted by Mayo (2015), on the “Factors Influencing Research Productivity in Private Universities in Uganda”, the results revealed that academic staff were not quite sure of the research, person and reward culture and employee job satisfaction reflected agreement to the variables where a level of job insecurity is evident. Resource availability revealed inadequate information about the available information to support research the research. In addition, research outputs were still relatively low in universities, academic staff’s involvement in research was influenced by job insecurity, there seems to be little or no information about the available resources that foster the growth of research.

## **1.2 Statement of the Problem**

Globalization has given universities access to a larger market and a larger customer base, a development that has brought with it both possibilities and problems, one of which is diversity - a phenomena that, if well-handled, may become a competitive advantage.

Deeks (2021), asserts that organizations, and particularly leaders within organizations, have developed an enthusiasm to ascertain practical tactics, hypotheses and techniques also as models that constitute the multi-faceted arena of diversity management. In recent years, as has been demonstrated by research in human resources, practitioners within the field of diversity have acquired a rather strong will to manage diversity and attempt to verify the link between diversity management, organizational performance, and the organization as a whole (Yang & Konrad, 2011). Diversity within the education context is made differently in a business environment thanks to the unique nature of educational institutions, where the clients’ students are under relatively much higher control and influence of the organization (Stewart & Carpenter-Hubin, 2000 ; Ruben, 1999).

When the organizations employ human resource belonging to different age, gender, perception, attitude, caste, and religion, it will be very difficult for the management as well as for the employees to manage and adjust with that environment. To manage diversified workforce is a big challenge for any organization.

Moreover, diversity exists among the staff and school, and among students. Hence, diversity is often argued to possess a good higher impact and consequently even greater importance during this particular setting, which results in the proposition that research of workforce diversity in education, is very relevant and needed. However, diversity is an only recently established management dimension and research topic as a part of “the new Human Resource Management” and features a weak theoretical basis (Pitts, 2005). Even later this idea has been adapted to the tutorial setting toward the top of the 20th century (Pitts & Jarry, 2007; Gurin, Dey, Hurtado & Gurin, 2002; Stewart & Carpenter-Hubin, 2000). Milem (2003) which points out that there's an emerging body of research that evidences showed diversity and its effects and there's unfortunately, not much empirical evidence that exists about how Higher Education Institutions (HEI's) are influenced by the range within them.

As the importance of productivity in the organizational context increases, organizations like universities invest large resources in improving the skills and aptitudes of their academic staff. Other aspects of the work environment that affect an academic staff productivity are relegated to positions of insignificance with little or no regard as to their impact on academic staff morale and efficiency. Hence, despite the existence of differences in the workplace, universities still concentrate on human capital development activities that do not incorporate the need to address the issue of workforce diversity.

According to Mushemeza (2016), recruitment, appointment and promotion of academic staff should depend highly on their productivity (positive production per individual human resource). The staff profile and qualifications should be posted on the university website in order to promote publicity and networking scholars. It was observed several challenges that face African universities today – funding (enhancement of financial base and sustainability), infrastructural demands, inadequate staff remuneration, high student enrolment with low staff -student ratio, and governance and management deficits. These challenges greatly affect academic staff productivity. But despite the challenges, strategic interventions to admit quality students' intake, appoint and retain quality academic staff to build a well-functioning university.

Since work organizations like universities usually channel their efforts towards increased productivity, the other spectrum of the academic staff daily organizational experience, in terms of workforce diversity, is usually ignored. Little effort appears to be made toward having a deep respect and understanding of simmering tensions among academic staff arising

from workforce diversity in an organization. In addition, management usually ignores how this affect academic staff interactions, team- building activities, team work, interpersonal communications and productivity (Ukachukwu & Iheriohanma, 2005).

In Higher Education Institutions (HEI's), diversity of faculty, staff and student brings challenges such as less cohesiveness, less effective communication, increase anxiety greater discomfort which is suspected to lead to less productivity (Handelsman & Fine 2020). Therefore, the researcher sought to investigate whether gender diversity, age diversity and nationality diversity are related to academic staff' productivity in chartered private universities in Central Uganda.

### **1.3 Purpose of the Study**

The study investigated the relationship between workforce diversity and academic staff productivity in private chartered universities in Central Uganda.

### **1.4 Specific Objectives**

The specific objectives of the study were stated as follows:

- i. To examine the relationship between gender diversity and academic staff productivity in private chartered universities in Central Uganda.
- ii. To assess the relationship between age diversity and academic staff productivity in private chartered universities in Central Uganda.
- iii. To determine the relationship between nationality diversity and academic staff productivity in private chartered universities in Central Uganda.
- iv. To establish the relationship between workforce diversity and academic staff productivity in private chartered universities in Central Uganda.

### **1.5 Research Questions**

The research questions of the study were as follows:

- i. What is the relationship between gender diversity and academic staff productivity in private chartered universities in Central Uganda?
- ii. What is the relationship between age diversity and academic staff productivity in private chartered universities in Central Uganda.?

- iii. What is the relationship between nationality diversity and academic staff productivity in private chartered universities in Central Uganda?
- iv. What is the relationship between workforce diversity and academic staff productivity in private chartered universities in Central Uganda.

### **1.6 Null Hypotheses**

Ho<sub>1</sub>: Gender diversity has no significant relationship on academic staff productivity in private chartered universities in Central Uganda.

Ho<sub>2</sub>: Age diversity has no significant relationship on academic staff productivity in chartered private universities in Central Uganda.

Ho<sub>3</sub>: Nationality diversity has no significant relationship on academic staff productivity in private chartered universities in Central Uganda.

Ho<sub>4</sub>: Workforce diversity has no significant relationship on academic staff productivity in private chartered universities in Central Uganda.

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

The scope of the study is presented on four aspects; that is, geographical scope, theoretical scope, and content scope and time scope.

#### **1.7.1 Geographical Scope**

This research study was carried out in Central Uganda. There were eleven (11) private chartered universities in Uganda. Out of the eleven private chartered universities, the researcher had randomly chosen six (6) private chartered universities. The researcher decided to choose six (6) chartered universities which is about fifty percent of the total chartered universities in Central Uganda. The chosen universities were Kampala International University, Kampala University, ISBAT University, Ndejje University, Uganda Christian University and Nkumba University.

#### **1.7.2 Content Scope**

This study focused on workforce diversity which is an independent variable (IV) conceptualised as gender diversity, age diversity, and nationality diversity and the dependent variable (DV) which academic staff productivity conceptualized as teaching productivity, research productivity and community service productivity. The intervening variables were NCHE policy and Universities Policy.

### **1.7.3 Theoretical Scope**

This study was guided by both the Similarity/Attraction Theory stated by Byrne (1971) and the Equity Theory by Adams (1960).

### **1.7.4. Time Scope**

The time scope of the study was from April 2022 to June, 2022.

## **1.8 Significance of the Study**

The findings of the study could benefit the following stakeholders;

First and foremost, the findings of this study will add to existing knowledge that will aid in understanding of the workforce diversity in general and its relevance to academic staff productivity, which in turn leads to organizational performance and it will be essential to organizations that are equipped with diversified workforce.

To employers and management of organizations, this study had provided in-depth knowledge explaining how workforce diversity has an effect on performance. The study provides key information in terms of recommendations and suggestions that will be useful in improving the general policies and practices of workforce diversity management Higher Educational Institutions. It provides information that will help organizational leaders to be able to make out solid strategies and best practices for hiring or recruiting, developing, retaining, engaging and motivating a high performing diversified workforce.

This study will also be beneficial to organizations striving to create a culture that is inclusive rather than exclusive. Also, multinational organizations also understand the need for diversity management so as to manage its work force across the globe and also understand the social structures (that is religion, language and others.) of the country where it is operating.

The findings will help the academic staff to accept and respect the unique diversity of fellow colleagues who are not only similar to them but also those who are dissimilar. It will help them to realize that working together can help improve their performance or productivity

To the Government officials: The findings of the study on workforce diversity is a vital topic for a country like Uganda that is so culturally diverse. This study will help the government in its quest to manage the diversity of its population across regions. It awakens the government

to look into the issue of diversity and productivity ensure put the laws that suppose diversity are obey by every organization. This study helped the government to fully embrace the richness of our diversity and harness the benefits that comes from it.

To researchers and academicians, served as a reference to other researchers who intend to conduct similar or related studies on workforce diversity in the future as it will provide reliable insight that are useful for educational purposes. This study has also provided information that could form the basis for future research.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.0 Introduction

This chapter comprises the theoretical review, similarity/attraction paradigm conceptual review showing the framework and the empirical review, ideas, theories and opinions from authors/expert, theoretical perspective and also describes empirical studies related to the study variables. It involves secondary data obtained from textbooks and journals, it also shows the gaps identified in existing literature.

#### 2.1 Theoretical Review

The study was underpinned by the Similarity/Attraction Theory by Byrne (1971) and the Equity Theory by Stacey Adams (1963)

##### 2.1.1. Similarity/Attraction Paradigm

The theoretical foundation for studies of diversity rests on the similarity/attraction paradigm by Byrne (1971). This paradigm argues that people are more attracted to similar others. “Birds of a feather flock together” is a proverb that best summarizes the similarity/attraction paradigm.

Similarity in personal attributes is a source of interpersonal attraction, these ranges from attitudes, values, demographic variables, and socioeconomic background, to competence and leisure activities and members of the same demographic group enjoy easier communication, faster development of rapport, and have a greater perceived likelihood that values and opinions will be validated (Gedeas & Knoard, 2015). If individuals can choose freely, there is a strong tendency for them to select a person who is similar to them in age, gender, and nationality (William & O’Reilly, 1998).

Studies based on similarity/attraction theory confirmed that the distribution of demographic differences in groups and organizations affects processes and performance/productivity and homogeneous workforce are likely to be more productive than heterogeneous workforce because of the mutual attraction between workforce members with similar characteristics (Horwitz & Horwitz, 2018). The parameters of this theory provide a reflection into individual persons’ cognisance of each other’s social identity and individual and behaviour at

workplace. The theory also predicts the influences of individual identity within an organization and its social structures.

Buunk and Gibbons (2007) affirm that essential element of the Self Inventory Test (SIT) with its divisions – group contact and similarity is an individual's awareness of the self and others. Their argument draws on aspects of social cognition in the context of individual differences based on ethnic background, gender, education/profession, religion, work experience, type of work and duty location nationality among others. The effective management of these differences would presumably therefore be important for performance of a public sector organisation like university or higher institutions. According to Abrams and Hogg (1990), there are several components that are quite important in understanding the link between workplace diversity and service quality, efficiency and effectiveness in an organization. The present study seeks to use the rich explanations embedded in the Self-inventory Test (SIT) to understand the link between workplace diversity management and performance of public organizations like public university in Uganda.

Self-Inventory Test (SIT) is a guide to understand how employees' perceived differences on the basis of various aspects of internal dimension (ethnic heritage, gender and sexual orientation); external dimension (income, religion, educational background, work experience and marital status) and; organizational dimension of diversity (work content, work location and type of employment). Some of the previous researchers have tried to study how workplace diversity as a construct of perceived differences among employees on the basis of sex, tribe, profession, age, political affiliation, and culture and/or nationality identity influences organizational performance in terms of service quality, work efficiency and effectiveness (Buunk & Gibbons 2007; Foldy, 2001; Abrams & Hogg, 1990).

Demographically diverse individuals are expected to have a broader range of knowledge and experience than homogeneous individuals; individuals in diverse groups may have greater access to information networks outside their work group (William & O'Reilly, 1998). For this perspective, diversity is valuable when it adds new information. Groups that are composed of a variety of members can have a direct positive impact through the increase in the skills, ability, information, and knowledge that diversity brings (Wentling, et. al., 2000). While Kanter (1983) found that the most innovative companies deliberately established heterogeneous teams to capitalize on a multiplicity of views while avoiding the pitfalls of groupthink. Therefore, diverse individuals with varying demographic backgrounds add more



dimensions to problem-solving and decision-making processes while promoting creativity and innovation, hence having a relationship with public sector organizational performance (Leary, 2018). This positive impact of diversity can be expected when the task can benefit from multiple perspectives and diverse knowledge (William & O'Reilly, 1998). Most researchers agree that diversity can provide a wider range of knowledge and skills for problem-solving (Ancona & Caldwell, 1992). Therefore, value-in-diversity hypothesis suggests a positive relationship between background diversity and organizational performance or productivity (Mugabi & Kirya, 2018).

The similarity/attraction paradigm rooted in social psychology suggested that homogeneous team members work well together, resulting in a positive effect on team performance or productivity. In contrast, the "value-in-diversity" hypothesis and the resource-based view of the firm rooted in management research argued that heterogeneous team members create diverse perspectives, improving team performance or productivity. When examining the effects of workforce diversity on organizational performance, researchers have used a variety of indicators to assess intra-workforce dynamics. Although performance or productivity is seldom measured directly, inferences about the effects of diversity on performance or productivity can be easily drawn from studies that measure closely related constructs such as conflict and social integration.

In organizations, informal relationships and roles often transcend formal positions and hierarchies. Informal relationships in organizations reflect social identifications with extra organizational communities such as age groups, racial groups or gender groups (Barifaijo & Maria 2018). Members of minority groups often find that it is more difficult to establish beneficial social relationships within their immediate work group due simply to the absence of others who are similar to them. Feelings of isolation are the natural result. To alleviate feelings of isolation, today many organizations provide support to employee affinity groups (also called network groups or caucuses), which facilitate socializing among members of demographically similar groups (Friedman, 2018). Even when formal organizational practices do not intentionally encourage the formation of such social communities, they may arise naturally as minority members seek to form informal relationships with similar others (Boesen & Therkildsen, 2018). As a result, these groups influence the performance or productivity of organizations.

### **2.1.2 Equity Theory**

In the 1960s, John Stacey Adams, a behavioural psychologist, developed the Equity Theory. This theory describes the relationship between the perception of fairness and worker motivation. People typically value fair treatment. Successful entrepreneurs recognize this and structure their small-business workplace to reward people according to their contributions. They also recognize that people have needs (Boesen, N & Therkildsen, 2018).

According to Equity theory, an employee's perception of the fairness of his work's input and outcome influences his motivation. Effective performance management systems enable a small-business manager to clarify job responsibilities and expectations, develop an employee's capabilities, and align an employee's behaviour to the company's strategic goals and values. An employee typically feels satisfied with the outcome of his effort, including his pay, when the compensation matches what he feels he puts into the job. If an employee perceives that others get more for doing less, he typically becomes less motivated to work hard. Managers create a productive work environment by communicating job requirements clearly and establishing fair and consistent performance objectives for all employees (Slack & Parent, 2018).

The theory is an important tool for businesses to assess employee satisfaction, the relationship between motivation and productivity and how to increase motivation to better reach company goals and objectives. For example, a hard-working employee might believe he is paid a fair salary until he becomes aware of the fact that he is one of the lowest-paid people on staff. This knowledge may lead him to become unmotivated and will thus threaten the success of the company (Timmermans, Ostergaard & Kristinsson, 2018). This theory can be applied to higher institution of learning where academic staff can be productive if they are satisfied and motivated.

It is not easy to make equitable decisions while supporting performance improvement. Managers typically evaluate their employees, calibrate ratings and decide on rewards. These rewards include pay increases, promotions, flexible work schedules or stock options. Justifying these decisions becomes the focus, rather than relaying constructive feedback that can enhance performance and foster career development. Successful school administrators clearly communicate the school's goals and policies and make sure academic staff understand the roles in achieving school objectives. By recognizing the effort, loyalty, commitment, skill

and enthusiasm that an exemplary academic staff displays, an effective school administrator acknowledges accomplishments, establishes trust and builds a productive workforce. An academic staff sense of achievement tends to build loyalty and enables him/her to feel secure about his/her future with the school (Jammaers, Zanoni & Hardonk, 2018).

Equity Theory calls for a fair balance to be struck between an employee's/academic staff "inputs" (hard work, skill level, acceptance, enthusiasm, and so on) and their "outputs" (salary, benefits, intangibles such as recognition, and more). According to the theory, finding this fair balance helps to achieve a strong and productive relationship with the employee/academic staff, with the overall result being contented, motivated employees/academic staff (Siltala, 2013).

## **2.2 Conceptual Framework**

The independent variable in this study (workforce diversity) has got mixed views, regarding what it really entails, with different scholars providing different dimensions that define it (Makhdoomi & Nika, 2017; Andoh, Ghansah, Okogun-Odompley & Ben-Bright, 2019; Makudza, Muchongwe & Dangaiso, 2020). Others have even indicated that, the concept of workforce diversity is not static (Makhdoomi & Nika, 2017). Makhdoomi and Nika (2017) have indicated that, as the world changes, organisational factors also change and so, the diversity workforce increases, hence the increased need for managers to pay attention to it. Different authors and researchers have attached different dimensions to workforce diversity. For example, Wheeler (1994) defined it using dimensions like age, gender, race, ethnicity, disability and religion. Other authors like Caudron, (1992); Carr (1993); Triandis (1994); Thomas (1992) extend the dimensions of workforce diversity to include characteristics like marital status, personality, lifestyle, language, sexual orientation, education level, values, geographical origin, tenure, beliefs and economic status. With this definition, workforce diversity is looked at as all the characteristics that define differences in individuals, which differences can occur in different ways, as also pointed out by Hayles (1996). Given the sporadic nature of workforce diversity, managers in organizations of today have got to be readier than ever before to deal with a diverse workforce and also diverse customer base.

According to Dessler (2011) workforce diversity dimensions are mainly demographic in nature and include gender, age, color, culture, origin, race and disability. Dessler (2011) agrees with Shen, Ashok, Brian and Manjit (2009), who indicated that diversity

characteristics include both visible and invisible features, which define the way people at the workplace differ. The complicated nature of the concept workforce diversity is also explained by Cascio (1998) who showed that this concept is heterogeneous. Cascio's view is expounded by Wambui *et al.* (2013) who indicated that a group which is diverse involves people "who accept, understand, respect and realize each other's differences". This means that even people seen to be of a similar group recognize differences among themselves, implying that the concept of diversity is deeper than one may actually think. A multiplicity of factors makes people different, for example, their different backgrounds, their personal goals, cultures, religious beliefs, age groups, gender and so on. Thus, the term workforce diversity comes into play, whenever an organization is established and employs two or more workers. Since these workers have to coexist and work towards the common goal of the organization, the term workforce diversity comes into play. Each diversity brings into an organizations opportunities and threats or benefits and weaknesses, which organization managers have got to exploit and control, as pointed out by (Parvis, 2003).

Given the diverse nature of workforce diversity, scholars have tried to group its dimension. Even then, scholars do not agree on the groupings of these dimensions. Some do not group, others provide two groups, while others have divided diversity dimensions into three categories. Most scholars who provide diversity categories agree on the naming they give to these categories, to include primary, secondary and tertiary dimensions, but they differ on the characteristics they include in each category. Those who believe that diversity has two categories (primary and secondary dimensions), indicate that primary dimensions include mainly the characteristics which are in-born and so beyond a person's control and cannot be changed, which include age, gender and ethnicity (Loden & Rosener, 1991; Griggs, 1995; Coats, Goodwin & Bangs, 2000). On the other hand, secondary dimensions of workforce diversity are those characteristics that can change along a person's life cycle and they include features such as marital status, religion, education level and so on (Loden & Rosener, 1991; Coats, Goodwin & Bangs, 2000). The third category, which presents three categories of workforce dimensions, is mainly attributed to Rijamampianina and Carmichael (2005), who indicted that primary dimensions "include age, disability, ethnicity, race and gender"; secondary dimensions include "culture, sexual orientation, thinking style, religion, lifestyle, economic status, education, nationality, geographic origin, political orientation, language, family status and work experience"; tertiary dimensions involve "assumptions, beliefs,

feelings, values, group norms, attitudes and perceptions”. According to these authors, the tertiary dimensions make the nucleus of a person’s identity.

Given the wide nature of the concept of workforce diversity, this study picked the primary dimensions, to examine the relationship between workforce diversity and academic staff productivity, with three dimensions namely, gender, age and nationality. When the organizations employ human resource having different age, gender, perception, attitude, caste, religion, region then it will be very difficult for the management as well as for the employees to manage and adjust with that environment. To manage diversified workforce is a big challenge for any organization. These three measures are generally agreed upon by most scholars of workforce diversity. As indicated in the conceptual framework (Fig. 2.1), the researcher assumed that the level of academic staff productivity, differs according to these individual characteristics. According to Mugenda and Mugenda (2015), a conceptual framework is a hypothesized model identifying the concepts under study and their relationship.

**Independent variables**

**Dependent Variables**

**Workforce Diversity**

- Gender Diversity**
  - Male
  - Female
- Age Diversity
  - 20-30 years old
  - 31-40 years old
  - 41- 50 years ols
  - 51 years and above
- Nationality Diversity
  - Ugandan
  - Kenyan
  - Rwandese and others

**Academic Staff Productivity**

- Teaching Productivity
- Research Productivity
- Community Service Productivity

**Intervening Variables**

- NCHE Policy
- University Policies



**Fig. 2.1 Diagram Showing the Relationship between Workforce Diversity (IV) and Academic Staff Productivity (DV) and the Intervening Variables.**

*Source: Adopted by the researcher, with ideas from Rijamampianina and Carmichael (2005); Andoh et al. (2019); Makhdoomi and Nika (2017); Shen et al. (2009).*

Figure 2.1 is a conceptual framework showing the relationship between the independent variable (workforce diversity) and the dependent variable (academic staff productivity). The figure also shows that, apart from workforce diversity, there are other variables which may intervene in this relationship and affect the extent to which the independent variable affects the dependent variable which are NCHE policy and universities policy.

Based on this conceptual framework (Fig. 2.1), the independent variable (workforce diversity) is conceptualized as gender diversity, age diversity and nationality diversity, following the conceptualisations from Andoh *et al.* (2019); Makhdoomi and Nika (2017); Shen *et al.* (2009). The dependent variable (academic staff productivity) is operationalized as teaching productivity, research productivity and community service productivity. The variables the researcher expected to intervene in the relationship between workforce diversity and academic staff productivity are policies, some of which are from external bodies, in this case NCHE policies, and those which are internal, called University policies.

The National Council for Higher Education (NCHE) and University policies may promote/positively affect staff productivity or may negatively affect it. For example, if research activities are a requirement for an academic staff to continue teaching, research productivity may be positively affected but if such is not enforced or encouraged, research productivity may not be boosted. The same applies to community service. How academic staff are to engage in community service activities, is not as much enforced the way teaching is emphasised. For example, there are requirements that academic staff must have schemes of work, lecture notes and course files before they go in for lectures. Templates for the same, are already developed and provided to academic staff to ensure that they comply to the requirements of teaching quality. Other steps such as quality assurance monitoring of the lectures are also strictly implemented and reports of academic staff evaluation are produced every semester and academic year. However, the same steps are not seen when it comes to research productivity and community service.

Meanwhile, the study conducted by Sharbari Saha and Mukherjee (2008) in this, the authors have focused over the requirements due to globalized market and benefits of workforce diversity further they said that if the organization is not employing the diversified workforce, then that organization is not competitive enough and the sales managers can make their

diversified workforce effective and competent by providing them training. Also, according to Asmita (2015), the most important asset of any organization is diversified workforce because the diversified workforce is good at problem solving, as they provide different and creative ideas and gives competitive advantage to the organization. Further the author focused over making the workforce happier by proper understanding of the expectations and needs of each individual.

While Goyal (2016) has depicted four models to understand the dimension of diversity they are diversity wheel in this model the author has classified the model into two dimensions first is primary which includes age, gender, mental/ physical abilities, race, ethnic heritage, sexual orientation and the secondary dimension includes geographic location, work experience, income, religion, first language, organizational role and level, communication style, family status, work style, education, military experience. Next model is four layers of diversity in this the author adds on two more layers with the diversity wheel they are personality at the core and external dimension includes work field, division, seniority, work location, union affiliation, management status, organizational dimensions. Third model is diversity iceberg in this the author adds one more dimension in diversity wheel which is tertiary dimensions like beliefs, assumptions, perceptions, attitude, values, group norms and the last model is kaleidoscope perspective of the individual in this the author has described various attributes like age, region, gender, qualification, caste, family status (Sharma & Sharma, 2014).

On the other hand, Mallikarjunan (2007) showed that each and every individual is different, everybody is having their own perception, attitude and thoughts and to manage such type of different individuals require a specific skill because of the complexities involved in this process. Human resource is an important asset for any organization. Capital and physical resources, by themselves, cannot improve efficiency or contribute to an increased rate of return on investment.

It is through the combined and concerted efforts of people that monetary or material resources are harnessed to achieve organizational goals. But these attitudes, efforts and skills have to be sharpened from time to time to optimize the effectiveness of human resources and to enable them to meet greater challenges. Without employees, the organization cannot move an inch. Therefore, the management of this resource is also an important issue. Human resource management is concerned with managing 'human aspect' of the organization in such

a way that organizational objectives are achieved along with employee development and satisfaction.

Each individual is different from each other because of their different religion, educational background to which they belong, age and the perception. When different types of people in terms of thinking, perception, generation come together to work at the same place then definitely a situation may come where all these different types of people may not agree at the same point. At that point, of time it is going to affect the interpersonal relationship among people. The researcher has taken some aspects, which are a part of diversity among workforce they are age, gender, caste, experience, professional qualification and the employees coming from various geographical regions.

According to Durga (2017) productivity refers to as the autodetecting task or an accomplishment or achievement. He adds that employee productivity is how well an employee is effectively fulfilling his/her job requirement or discharging his/her duties so as to achieve good results. O'Flynn *et al.* (2016) said academic staff productivity is defined using three criteria. First criterion, is that academic staff' output meets the standard of performances set by the organization's external customers. Secondly, academic staff productivity can be defined in terms of how the social processes utilized in the performance of their jobs enhances or maintain the capability of the academic staff to work together on subsequent group tasks. Finally, that academic staff personal needs are satisfied instead of them being frustrated by the group productivity. Productivity is an individual's behaviour and results. It is also seen as the way in which people get their work done (Armstrong, 2012).

However, O' Flynn *et al.* (2016) argues that the productivity of academic staff is not truly representative of what a group productivity is. Rather, it is the personal experience of group members and the subsequent ability of the academic staff to perform in the future that also defines the employee's productivity. O' Flynn *et al* (2016) citing Ancona (1992) argue that there are multiple dimensions when it come saturating of productivity seeing that different constituents have their different productivity criteria and access to data. For instance, management may be more interested in looking at the output of the academic staff whereas; the academic staff make be interested in creating productive environment for themselves. They make have daily information about their interactions with co-workers or group members and use this data to evaluate productivity. Information and decision-making theory predict that a positive outcome exist between employee productivity in intellectual and



complex asks and information as academic staff have diverse knowledge, skills, experience and expertise which results in innovation, new product design and improved decision making. According to Rahman, Hussain and Hussain (2018), that academic staff productivity can be determined based on three factors; work environment, ability and motivation, thus expressed by the formula; Productivity (work environment x ability x motivation). Ability here has to do with the academic staff physical, emotional and intellectual capability to carry out his task. That is, the academic staff possesses the skills and knowledge needed for the job. Robert, Leonard and Leonard (2015), mentioned productivity indicators as ability that is competencies, commitment and self-efficacy (self-efficacy is a motivational factor and it is that believe that an academic staff has concerning his or her ability to perform the task assigned to him/her); motivation- contingencies, goal-task clarity, feedback; system-technology, task interference opportunity, workplace layout. System factors include factors such as poor relationship among academic staff, lack of adequate training, and others. Motivation looks at the academic staff desire and commitment to his job.

Blumberg and Pringle (1982) formulated performance equation as; performance individual attribute work effort x organizational support. Bailey *et al.* (2018) cited Armstrong (2012) introduced yet another factor 'opportunity to participate' to the formula. However, Boxall and Purcell (2015) cited in Arm strong (2012) formulated AMO formula combining Bailey *et al.* and Vroom idea on performance (Armstrong, 2012). That is, academic staff having the opportunity to make use of their skills and knowledge to contribute to both work group and organizational success. Thus, Purcell, Kinnie, Hutchinson, Rayton and Swart (2015) said the Boxall and Purcell (2015) model of performance indicates that performance is of ability, motivation and opportunity which is referred to as AMO. Employee productivity is having the capacity and the commitment to do job. The formulated postulated is; performance=capacity commitment. Capacity is having the competencies (the skills, knowledge, behaviours and personal attributes), resources (having the resources needed to do job) and the opportunity to complete a task or job (OPM.GOV, 2017).

While in the study conducted by Asio (2021) on procrastination and work productivity of academic staff showed that there is a relationship between procrastination and work productivity and no significant difference when respondents were grouped according to gender. Meanwhile, according to Markdoone and Nika (2017), workforce diversity which included age, gender, national origin, ethnicity and religion and employee productivity are

not related, none of the dimensions of diversity that studied has a significant impact on productivity of employees. Thus, employees can work in the company of various people who come diverse background and diverse features and characteristics without having any impact on their productivity.

### **2.3. Related Studies**

A number of studies have been conducted by different researchers in different parts of the world, to produce evidences on what really explains variations in staff productivity, in different institutions and organisations (Qais & Hussein, 2021; Fatema & Qais, 2020; Gikonyo, 2017; Hagberg, 2014; Coole, 2012; Marten, 2012; Lawrence, 2010; Elliot, 2009). Various factors have been studied by different scholars in different countries and organisations. Factors like motivation, training and development, skills, workplace environment, discipline, job satisfaction, staff appraisal, monitoring and supervision, experience, technology among others (Qais & Hussein, 2021; Fatema & Qais, 2020; Gikonyo, 2017; Hagberg, 2014; Coole, 2012). The findings from previous studies present different positions, regarding the strength of effect, direction and statistical significance. There is no generally agreed upon list of factors to which variations in employee productivity can be attributed to. Since there are many factors, with different ways in which they affect productivity in organisations of different types, targets, products, locations, ownerships and so on, it is difficult to isolate the most significant factors in all situations. It is, therefore, better to study a group of factors in a given context. For this matter, this section of review, presents a discussion on three diversity factors, that were assumed to be having a significant relationship with staff productivity. These staff diversity investigated in this study factors include gender diversity, age diversity and nationality diversity.

#### **2.3.1 Gender Diversity and Academic Staff Productivity**

According to Powell (2018), gender is the physiological inference of a person being either male or female. Studies on gender diversity focus on beliefs people have concerning how male and female staff differ, not only in their physiological characteristics, but also in their productivity. This is based on the beliefs or assumptions that these gender variations influence the way in which individuals react to situations, environments, influences and behaviours of others in work places and other settings of life. Some scholars theorize that gender diversities are partly responsible for variations in performances, productivity and

other achievements in life endeavors (Xie & Shauman, 1998; Van den Besselaar & Sandstrom, 2017; Van Arensbergen, van der Weijden & van den Besselaar 2012; Sugimoto, Lariviere, Ni, Gingras & Cronin, 2013). Others believe that these variations are not due to differences in physiological features of men and women, rather they are caused by stereotypes prejudices and discriminations (Cameron, White & Gray, 2016; Symonds, Gemmell, Braisher, Gorringer & Elgar, 2006; Hong, 2021; Sax, Hagedorn, Arredondo & Dicrisi, 2002). Evidences supporting these arguments have been presented amidst attacks and criticisms from those who do not support a certain school of thought.

The gender diversity factor and its influence on staff productivity and performance, has been studied and approached from different angles and as such, different results have been produced. Therefore, reaching a conclusion may be difficult because, the researcher believes that the influence gender could be having is multifaceted and for each facet, the effect of gender affects a different category, depending on factors behind what is being assessed. For example, most of the researchers in this area have assessed research productivity and have produced differing results. In other words, there are more studies measuring productivity in terms of research outputs than in terms of teaching and community service. But even then, the findings in this line differ due to differences in the way research productivity is measured.

For example, a study by Sax *et al.* (2002) examined gender variations in productivity, with respect to research output. They revealed that factors influencing male and female research productivity are almost the same. But they identified that family-based factors, like having children, have very insignificant effects on research productivity. On the other hand, a study by Abramo *et al.* (2013) was on male and female differences in research cooperation. Their results indicated that female researchers exhibited a higher level of research collaboration in all the different ways examined, except for international collaboration, where male staff exceeded females. A study by Yuan (2017) was on gender differences in the research output among university academic staff. The findings indicated superiority of male staff in research productivity, but explained that family burdens and capacity to cooperate in research, were the actual factors responsible for differences in staff research outputs. Contrary to findings by Abramo *et al.* (2013), evidences by Yuan (2017) indicated that female teachers spend more time on research while at campus compared to male staff and the reason for this was to compensate the lost time put on family issues while at home. Yuan's findings also disagreed with those of Abramo *et al.* (2013), when she indicated that female staff were less likely to

participate in research cooperation compared to male staff, and according to her, this was the reason why female research outputs were still lower compared to male. In comparison, the findings by Xie and Shauman (1998) had confirmed that gender variations in research productivity originate from structural locations that were majorly favoring men. They indicated that secular improvements in female research and scientific positioning can positively improve their research productivity. The findings by Xie and Shauman (1998) influenced many studies on gender diversity and factors it can really influence. Like it was pointed out by Cole and Zuckerman (1984), it has been always been that female researchers get less promotion opportunities compared to male researchers, especially in large institutions. This was also confirmed by Sun (2012) and several other researchers believe like that.

Regarding the argument of whether it is necessary to mix up staff teams with both male and females, Hoogendoorn *et al.* (2011) indicated that teams with equal gender mix perform better in terms of sales and profits, compared to male-dominated teams. They produced evidences that supported the argument that staff teams with lower numbers of females produced lower sales and profits compared to teams with a balanced gender mix. One explanation for this, as provided by Gallego-Álvarez, García-Sánchez & Rodríguez-Domínguez (2010) is that female team managers have a more positive attitude towards equality and diversity than their male counterparts. To me, this reason is not so convincing in understanding why teams with a balanced mix of male and female researchers perform better than teams where there are more male staff. Unless evidences of teams where women dominate are produced, it may not be logical to take this position seriously. As per now, we can use the idea provided by Martins and Parsons (2007) that indicate that, it seems both male and female staff need each other and when they are mixed, they support each other than when each of the genders dominates. However, this position needs three strong empirical evidences on productivity of three types of team mix; male dominated, female dominated and equal mix.

On the question of why and how gender affects productivity especially in scientific research activities, many scholars agree on the big variations in terms of time invested in research by male and female staff (Van den Besselaar & Sandstrom, 2017). This is true, especially in the period after getting married and producing children, where women become more occupied by marriage and child rearing activities at home and they spend more time there than men,

something that results into reduced research outputs for women. This idea is in line with findings of Yuan (2017), who revealed that family burdens and cooperation significantly affected staff research productivity. How these homes affect research outcomes are clearer, when analyzed in terms of time invested, but also in terms of concentration and focus. No doubt, a person who invests more time in some activity (like research or teaching) will produce more than another who invests less time in it. Likewise, more time means more concentration and focus.

Similarly, some expectations are linked with male and female due to their inborn tendencies, natural affiliation, beliefs about which type of behaviour, attitude, cognitive skill or interest attracts one sex rather than the other. These gender differences influence the approach in which individual react in workplace. Sometimes gender diversity adversely affects the behaviours like discrimination, prejudice and stereotyping. Eventually such attitude negatively influences the productivity at workplace (Ahmad & Rahman, 2019). But on the other hand, in the study conducted by Ahmad and Rahman (2019), showed that gender diversity has negative relationship on employees' performance or productivity.

On the other hand, Dike (2013), noted that the impact of workforce diversity on organizations like universities or academic institutions, on the high productivity was one of the positive benefits of increased workforce diversity. While the study by Roberge and Van Dick (2010) highlights that gender diversity among workforce of an organizations has positive outcomes like creativity, problem- solving and innovations. However, they sighted the challenges like aspects, - increasing conflicts, decreasing group performance and decreasing group performance and decreasing cohesiveness. While according to Stephen, *et. al.* (2018), increasing the number of gender diversity initiative is not enough. It was recommended that growth and advancement opportunities should be created to as to bridge the gap between male and female genders to improve staff productivity like in higher educational institutions.

In the last decades, those organizational barriers that hinder women from advancing to the top in their career have been a vital in a private university research. Singh and Vinnicombe (2018) in their study discovered that women are almost if not completely absent when it comes to occupying senior positions in private universities. However, male directors often form an elite group at the top of the corporate world and only very few women are able to

breakthrough these glass ceiling into this elite group, despite making inroads into middle management. This point out that gender in the board of directors in some big organization is a barrier for career advancement. Singh and Vinnicombe (2018) argued that this is a matter of concern, because the talents of women are not being fully utilized. The private sectors are seen and characterized as influential, powerful, financially important and generally not controlled by the state. Historically, the private sector, including the board of directors has been male dominated where men have controlled the majority of high-level positions and especially those related to power (Healy, Kirton & Noon, 2018).

One of the most prevailing metaphors used to describe women's absence in senior organizational positions has been that of the 'glass ceiling'. Mavin (2018) citing Morrison and VonGlinow (1990) said the phrase 'Glass ceiling' was made up in the 1960s. This is used to describe a subtle obstacle that is so clear but yet very powerful that it can hinder women from climbing up the managerial ladder. Glass ceiling was coined to describe those organizational practices and processes which creates difficulties and limitations in which women encounter when trying to attain the highest position of their particular field. Here, women may be unable to reach the top of the management hierarchy even though they can see it (Gatrell & Swan, 2017).

The glass ceiling appears to restrict women's access in to top management positions only because they are women (Powell, 2018). Powell adds that in terms of pay, the average female full-time worker continues to receive pay that is lower than that of their male counterparts. The economic status of women in most organizations remains lower than that of the men. This gap exists partly due to the lower average wages of workers in female intensive occupations than that of workers in male intensive occupations. Glass ceiling is not a barrier that is based on women's lack of ability to handle upper-level management positions. Instead, the barrier keeps women from advancing higher private university because they are women. Removing the glass ceiling and other obstacles to women's success, represents a major challenge to organizations. As such, those policies that promotes equality in pay and other benefits programs for women; policies that promotes equality in pay for jobs of equal value and encourage other benefit programs of special interest to women are needed private universities.

Although women who work in private university's supporting to have policies that offers

equality of pay and opportunities and though most of the time, they appear to be well qualified, the career ladder for women in large organizations appear to be often shortened, while the male ladder extends to top of the career tree. Women are often hired off into special gendered positions, such as human resources-known as the 'velvet ghetto (Gatrell & Swan,2017). These practices and processes do not only appear in large organizations and public service organizations but also in small and big firms, women are often absent at board level within family businesses, where sons continue to take precedence over daughters and where women's contribution is frequently marginalized. Men have thus become the 'somatic norm' in private university roles involving management and decision making.

### **2.3.2 Age Diversity and Academic Staff Productivity**

Age diversity is a phenomenon that is present in nearly all groupings, such as families, higher institutions, sports teams and work or team groups with members of varying ages (Kunze, Boehm & Bruch, 2013). These authors explained how today's workforce is much more diverse in terms of age, due to differences in generations, where the strengths of each generation are uniquely different and may not necessarily enhance each other (Rowe, 2018), yet both are needed in the organisation. Thus, age diversity benefits both the organization and the staff (Johnson & Johnson, 2018; Zemke, Raines & Filipczak, 2013). Abrams and VonFrank (2018) stated that, as the labour force get older faster than could be replace, the baby boomers are leaving or rather preparing to leave the labour market, there are not enough generation 'Xers' to fill the gap and the millennials are becoming an ever-large percentage. Accordingly, it is likely that today's organisations employ staff of different generations, whose productivity potentials are significantly different. Scholars such as Abrams and VonFrank (2018) have grouped them into four; Veterans or Traditionalists, born before1943; the Baby Boomers, born between 1943-1960; generation X, born between 1960-1980; and generation Y or the Millennials, bornbetween1980-2018.

Many scholars, theories and biological scientists, almost agree with the argument that age diversity is a significant predictor of staff productivity (Abramo, D'Angelo & Costa, 2018; Odhiambo, Gachoka & Rambo, 2018; Abramo, D'Angelo & Murgia, 2016; Viviania, Bravob, Lavalliere, Arezesd, Martineze, Dianatf, Bragancag and Castelluccih, 2021). But what is not generally agreed upon is the extent/strength and direction of effect. Some scholars are of the view that young staff (Millennials) are more productive than the veterans, baby

boomers and generation X. Due to physical energy differences, it may not be more effective to consider these age groups at once. It is better to compare two groups at a particular time, so that meaningful analysis can be made. This study assessed the effect of age diversity on staff productivity by age groups one by one, using the OLS method.

There are different explanations on how and why one age group is believed to be more productive than the others in one or more productivity measures. When productivity is assessed generally as one, there are different beliefs as there are different evidences presented. Some scholars argue that age diversity is a significant predictor, while others do not believe so. Empirical findings have also not pointed in one direction. Some findings show that age is a significant predictor (e.g., Abramo *et al.*, 2018; Odhiambo *et al.*, 2018; Abramo *et al.*, 2016), while others revealed that it is an insignificant predictor (e.g., Elsaid, 2012; Gikonyo, 2017). Even findings which support age as a significant predictor of productivity have differed, with some revealing that older staff perform better and so are more productive than young ones, while others reveal that young staff are more productive. In each case, researchers have tried to give reasons why one age group is more productive than the other. For example, Josef (2018) believes that older academic staff are less productive because, they have an attitude that resists change. Joseph further explains that due to their advancement in age, many have reduced memories and as such, are more likely to be absent from work due to ill health, which partly results from their reduced energy and enthusiasm unlike the younger academic staff. Thus, they are unwilling to be trained on how to use new technologies, new processes or new skills. The resulting effect of these are the main causes for their decline in work productivity.

There are also studies with evidences showing three ways in which age affects productivity, where the young staff at the career beginning and older staff at the upper end of the career (the veterans) being less productive than their counterparts in the middle age (Aksnes, Rørstad, Sivertsen & Piro, 2010; Aksnes, Rørstad, Piro & Sivertsen, 2012). For example, the study by Aksnes *et al.* (2012) revealed that the “youngest and oldest researchers are far less productive in research outputs, measured in terms of number of publications and citations. Their findings further showed that productivity increases as age increase, it reaches a peak, as a person approaches the late age in career and thereafter starts to decline. Their study showed that the staff above 60 years are significantly less productive in research, in terms of number of



publications and citations than young staff.

The findings from Aksnes *et al.* (2012) agree with those of Gelner (2009), who indicated that age diversity may adversely influence the efficiency of workers due to differences in beliefs, values and preferences of the different age groups. Gelner showed that, generations gaps are a source of low productivity, clashes and conflicts. This is because, each generation believes that its strengths are matchless and therefore no need to worry about disparities coming forward due to generation gap. This view is also supported by Rowe (2010). In another study conducted by Ahmad and Rahman (2019) on the effect of age diversity on employee's performance, it was revealed that age diversity has a negative relationship with performance of staff. The findings that age adversely affects staff productivity need to be critically assessed, in order to understand how or which age group actually reduce staff productivity. But according to the findings of Gelner (2009), Rowe, (2010) and Aksnes *et al.* (2012), a reduction in productivity due to age comes in as a person reaches the upper end of their academic career. This implies a negative relationship between older age of 60 and above and productivity. However, there are currently no evidences and explanations on the negative relationship between the lower age group and productivity. What most scholars show is a positive insignificant relationship between the lower age and research productivity. This is in line with the findings of Jayawardana and Priyashantha (2019), who found out that age diversity has a positive impact on employee's productivity. This can be true in academic institutions because, it is usually a common practice that senior academic staff mentor young academic staff on how to perform their work effectively.

A recent study by Farooq (2017), provided explanations as to how age diversity in general impacts positively on staff productivity. He showed that a workforce composed of different age demographics creates an environment where each generation brings different skills and talents on table. Farooq elaborated that young employees are more likely to have a strong grasp on the use of high-tech mediums such as networking, webcasting and others, and that more mature professionals often have exceptional interpersonal skills and perform well in environments where traditional person communications are used. This diverse range of skill sets can offer an advantage to a company that caters to a multi-generational demographics.

Meanwhile according to Stephen *et. al.* (2018), that aging had direct implications for productivity. Different age cohorts differed in their productivity than changes in age

distributions of the workforce would affect the average output per worker. According to their findings, workers' productivity systematically varied over their working life, for reasons such as the accumulation of experience overtime, appreciation and depreciation of knowledge due to age-related trends in physical and mental capabilities. A more mature labour force would have higher average levels of work experience, with potentially positive effects on productivity.

### **2.3.3 Nationality Diversity and Academic Staff Productivity**

Nationality can be seen as an assembly of individuals who share common cultural traditions and customary practices and also provide their members with a self-conscious identity as a nation (Sayers, 2012). Implies diversity in language, religions, races and cultures. There has been an increase in multicultural workforce in the organization for utilizing greater participation and energy to improve and increase both academic staff satisfaction and work productivity. National identity is determined by individual's citizenship or their country of origin regardless of where they currently reside, Nationality is a membership that can include people of different races, religions and cultures. Nationality is among the strongest forms of group identity, and can embody a sense of pride, patriotism and sentiment for one's national history and values.

Nationality is self-identification of socio-cultural identity as opposed to something that can be imposed on someone by just gazing at the individual and making judgement about who they are based in what they look like (Sayers, 2012). From the aspect of the social identity theory, since nationality is a surface level characteristic of diversity, it can be quickly used to divide a group of people into nationality backgrounds. People tend to frequently identify with their nationality back ground as it gives them a sense of belonging and connects them to a group of closely related people. It is believed that people tend to favour those who belong to their nationality background more than others and they tend to cooperate and support with each other in the workplace which make them productive.

Even though organizations like universities differ in many ways, they are united by one similarity; diverse workforce. So, the way in which these organizations view and handle their diverse workforce, determines the impact such diversity can have on productivity of the staff and the entire organisation. Some scholars have argued that the positive side of a more diverse workforce far outweighs the disadvantages. For example, in the Harvard Business

Review (2018), some of the benefits are provided, including increased profitability, increased organizational effectiveness, productivity, learning, creativity, flexibility, organizational and individual growth, increased access to new segments and ability of institutions to adjust rapidly and successfully, among others. According to White (2019), the biggest negative effect of diversity is increased conflicts, which arise largely due to ignorance, prejudice feelings or derogatory comments that cause lack of acceptance. These lead to negative dynamics such as ethnocentrism, stereotyping, cultural or gender or nationality clashes with the feeling of being superior to others. If management ignores such conflicts the productivity of academic institutions may suffer (Otike & Mwalekwa, 2005).

Some researchers have gone to the extent of categorising the levels of nationality mix, indicating that, a moderate level of nationality diversity has no effect on team productivity (Gupta, 2013; Sayers, 2012; Pitts, 2010; Opstal, 2009). According to Gupta (2013), where majority of team members are nationality diverse, it is referred to as high level of nationality diversity, adding that such a high level has a positive impact on productivity. Following the rise in levels of diversity in recent times, there is a clear need for more studies on understanding ethnic diversity and how it affects productivity of academic staff and the institution as a whole (Watzon, Johnson & Zgourides, 2002).

Other scholars, Ahmad and Fazal, 2019; Zhuwao, (2017) have argued that nationality diversity is like a sword with two edges, meaning that, it has both advantages and disadvantages. On the positive side, Ahmad and Fazal (2019); Elsaid (2012); Opstal (2009) argued that the different nationalities can bring into the institutions “innovative and creative” ways of doing work, thereby improving performance among staff.

Other researchers have also argued that, the growth of multi-cultural private universities today comes as a result of the increase of different workforce views. Watzon, Johnson and Zgourides (2002) indicated that, the increase in productivity of teams comes as a result of the diverse nationality composition of academic staff and this is seen as the benefit of embracing various nationality perceptions for finding solutions to problems and enhancing the outcome of team members after they have learned ways in which they can make use of their dissimilarities for their advantage.

Based on the study of Timmermans, Ostergaard and Kristinsson (2018), nationality can stand

as a placement or substitute for cultural background and nationality dissimilarity can enhance creativity and innovativeness among staff, who may be encouraged to change the way they look at things, especially as it expands the point of view of academic staff in the organization. This implies that low levels of nationality dissimilarity could have a positive correlation with creativity and innovation while a higher degree of nationality diversity could have a negative effect because it has the tendency to create in-groups due to social categorization, create conflict among academic staff and cause poor cohesion among work team (Dahlin, Weingart & Hinds, 2018).

Many scholars have however looked at the negative side of nationality differences. For example, Kiglai (2006), as cited in Ahmad and Fazal (2019), noted that nationality differences can bring clashes due to differences in customs and traditions, which affect quality, quantity, sales and profits of the organization. This view is supported by the study of Dahlin, Weingart and Hinds (2005), who produced findings pointing to the fact that “conflicts, clashes and collision in organizations sampled, emerged due to “ethnic diversity and social categorization”. Van Esbroek (2008) advocated for proper management of diverse workforce so as to protect its benefits to the institution and eliminate its weakness and dangers.

According to Harrison and Klein (2018), academic institutions can experience negative consequences of having demographic diversities like race/ ethnicity, nationality, gender, and age. It is important to note that individuals from the minority groups are more likely to be less satisfied with their jobs, less committed to the organization, have problems with their identities and feel or experience discrimination (Milliken & Martins, 2018). Nevertheless, as the minority group grows, most of the problems encountered tend to fade away.

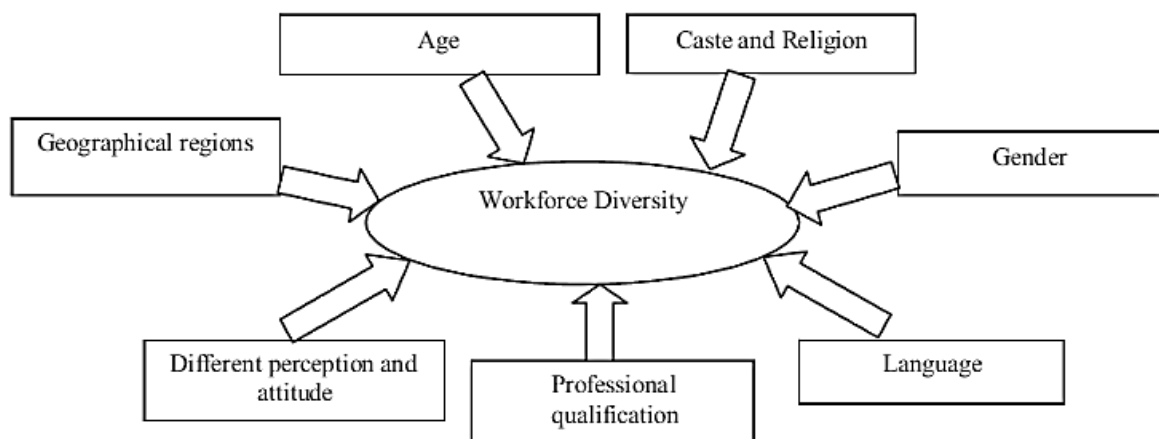
There are also some studies that have revealed that nationality is not a significant predictor of staff productivity, while others have showed that it is a predictor in one way or the other. Some studies have showed that nationality diversity has a positive effect, while others have indicated that it has a negative effect. For example, White (2019) has showed that nationality diversity has a negative significant effect on productivity, through promoting conflict among staff. White (2019) explained that conflict arise when members of the foreign community fail to be accepted in a foreign land. This makes them uncomfortable, which may affect the

productivity of foreign academic staff, especially when they are the minority.

This is in line with the findings of Harrison and Klein (2016) who revealed that institutional productivity is negatively and significantly affected by nationality diversity. In line with this finding, Milliken and Martins (2018) explained how nationality diversity adversely affects staff and institutional productivity. They explain that the job satisfaction and commitment levels of the minority groups of academic staff may be significantly lowered, due to increased conflicts, failure to be accepted and feelings of discrimination. Similar views were also produced by Timmermans, Ostergaard and Kristinsson (2018) who revealed that, if the numbers of minority groups grow, many of their acceptance and discrimination problems fade away. This argument suggests that institutions with high levels of ethnic diversity, enjoy high levels of growth arising from high levels of creativity and innovativeness. What is referred to as high levels of nationality diversity is however not well defined in literature, showing a need for more research on this point of view.

#### 2.3.4 Workforce Diversity and Academic Staff Productivity

Workforce diversity means differences among employees in terms of age, cultural background, physical abilities and disabilities, race, religion, gender and sexual orientation (Xie & Shauman, 1998). People are different in not only gender, culture, race, social and psychological characteristics but also in their perspectives and prejudices. Diversity makes the work force heterogeneous. In today's workplaces, employing a diversified workforce is a necessity for every organization but to manage such diversified workforce is also a big challenge for management (Asmita, 2015). The diagram below shows the factors that affect workforce diversity. (Oracle, 2018 and Pitts, 2018).



In order to survive in this type of cut-throat competitive world the organizations have to hire an efficient workforce that can handle such competitive environment. Employing diversified workforce is very necessary for every organization. In the current scenario the organizations that employ quality and competitive workforce regardless of their age, attitude, language, gender, religion, caste can only compete at the marketplace (Goyal, 2018).

It is expected that workforce diversity positively affects productivity of staff and organisations. Several researchers have produced differing evidences over this. There are findings which indicate that a diverse workforce positively affects productivity while others show that diversity does not significantly affect productivity. Among those studies which support a positive significant relationship between workforce diversity and staff productivity, is one by Asmita (2015), who indicated that one way through which diversity positively affects productivity is that it gives heterogeneity to teams, which is better than homogeneity. This view calls for today's organisations to diversify their workforce as a requirement. According to Asmita (2015) managing a diversified workforce may be a big challenge, implying that, this researcher also believes that a diversified workforce may negatively impact on workforce productivity.

Goyal (2016) indicated that today's organisations need a highly diversified workforce for them to survive in today's cut-throat competitive work environments. Many other researchers support the argument that workforce diversity significantly affects staff productivity (Sharbari Saha, Dewpha Mukherjee Patra, 2008; Sharma & Sharma, 2014;). Most of these scholars' findings and views are supported by the policy requirement argument.

Several researchers' findings indicate that workforce diversity has no serious effect on staff performance. For example, O'Flynn *et al.* (2016) showed that the group to which a staff belongs, has little influence on their performance. They presented findings that showed that experience of person is a more important determinant of productivity than gender and nationality. This suggests that, age may be more important in determining productivity than other diversity variables like gender and nationality.

Many studies have produced findings showing that workforce diversity has no significant effect on employee productivity. For example, Ahmad and Fazal (2019) conducted a study, examining the effect of workplace diversity on employee performance in Allama Iqbal Open

University, Pakistan. Their findings indicated that workforce diversity, measured by gender, ethnicity and age, had a negative insignificant relationship with staff performance. Their study findings support the argument that aggregating diversity may provide a misleading analysis. This is so because, their results showed that in general the regression model (when all diversity dimensions are included) was statistically significant, supporting a conclusion that workforce diversity is a significant predictor of employee performance. But considering the coefficients of their regression model results, of the four-dimension factors considered, only experience was significant, the rest were not only insignificant, but also negative, an indication that they reduce performance, instead of boosting it.

Andoh *et al.* (2019) conducted a study examining the impact of workplace diversity on employee performance, a case of some selected private universities in Ghana. Their findings revealed that, in general, workplace diversity had a significant impact on staff performance. Education and age were more influential than gender and ethnicity. Their findings imply that better understanding of workforce diversity requires considering the dimensions of diversity. It seems that some dimensions of diversity impact significantly on performance of workers while others do not and each has logical truth. For example, age and education, as dimensions of diversity, are different from gender and ethnicity. Age varies directly with one's experience and education enhance one's capacity to do work, due to extra skills acquired, and this is generally agreed upon. But there is a disagreement on whether being a male or female determines one's capacity to perform, especially in-service sector.

Several other studies have produced results with negative coefficients, agreeing with those of Andoh *et al.* (2019) and Ahmad and Fazal (2019) among others. For example, a study by Makudza, Muchongwe and Dangaiso (2020) revealed negative insignificant correlations between age and productivity, but their results on gender relationship with productivity were positive and significant, deviating from results of those researchers discussed above. But the fact that their study was among employees in Government of Zimbabwe, may suggest that the services provided could be different from the services of employees in other sectors such as those of academic staff in private universities. This also points in the direction of argument that the question of whether workforce diversity impacts on employee productivity, is a big and very wide one, whose conclusion may not be quickly reached and so requires wide and careful investigations, even though much research work has been done already.

## **2.4 Summary of Gaps in Literature**

The expansive literature on diversity and its impact on employee productivity is noted but with a serious concern on the wideness of the diversity concept. So, it is not easy to assess how it impacts on productivity, if it is not clearly understood or agreed upon. The proportion of productivity that is determined by workforce diversity is not easy to estimate or predict when the concept of diversity is not fully measured well. Given the wide attention researchers have given the topic of diversity and impacts on productivity, it may not be possible for researchers to develop or agree on all its dimensions. Therefore, studies on the specific dimensions of diversity can develop specific conclusions on those, given the fact that diversity is very fluid (Kathryn & Harris, 2011).

One important gap to note is that, there is a wide gap in researches covering the topic of workforce diversity and its impact organisations and employee productivity/performance measures, between developed and less developed countries. Whereas much research work on workforce diversity and its impact on employee productivity, has been done, little has been done on the three dimensions of diversity within the Ugandan context of private Universities, a gap which this study intended to fill.

Secondary, most of the researches on workforce diversity and its impact on employee productivity collected quantitative data on diversity, which the researcher considers to have limitations in measuring diversity, especially on variables which are categorical. (SharbariSaha, Dewpha Mukherjee Patra, 2008; Sharma & Sharma, 2014;). This study intended to produce results where the data collected on diversity is categorical.

Thirdly, most studies estimated the effect of workforce diversity on employee productivity, using simple linear regression and correlation tools, which the researcher find to be inadequate. (Asmita, 2015; Goyal 2018) The researcher wanted to contribute to this methodological gap, by employing a nonlinear analysis technique, the OLS method, to determine the effect of on workforce diversity on employee productivity, which none of the reviewed studies has used.

Moreover, most of the studies on the impact workforce diversity has on employee productivity or performance, followed a purely quantitative approach. However, diversity in most cases has qualitative descriptions, which means that it is not easy to fully study it using



quantitative approaches. This study, though partly quantitative, targeted to conduct a qualitative survey especially seeking the views of experts on how the diversity measures affect staff productivity. These qualitative descriptions, combined with quantitative results would provide a deeper analysis and help to check on the weaknesses of quantitative measures. Few studies have engaged these variables from a qualitative aspect, hence a gap for this study to fill.

In many past empirical studies, researchers narrowed their investigations and only focused at a single aspect of workforce diversity, for example age diversity and employee productivity/performance (e.g. Ngao & Mwangi, 2013; Josef, 2018; Matthijs, Kooij & Rousseau, 2015; Nga & Feldman, 2017; Kunze, Bohm & Bruch, 2013), gender diversity and employee productivity (Wegge *et al.*, 2017; Hong, 2021; Abramo *et al.*, 2013), ethnic diversity and group performance (Watzon, Johnson & Zgourides, 2002; Oerlemans, Peeters & Schaufeli, 2018). This study contributed to filling this gap, by examining, through an OLS model, the combined effect of three measures of workforce diversity (gender, age and nationality) on academic staff productivity.

Based on the contextual gap, most of the studies were conducted in business sector and in developed countries and a few in Nigeria and South Africa, very few in education sector institutions like universities (Dike, 2013; Champion, 2018; Baligasima, 2013; Durga, 2017; Gupta, 2013; Dike, 2013; Ugwuzor, 2018, Ogbo, Kifordu & Ukpere, 2018). This study is among the few in education institutions like universities.

In addition, most of the studies on work force diversity and employee productivity (Assefa, 2004; Weiliang, Mun, Fong & Yuan, 2018; Maingi & Makori, 2015; Darwin & Palanisamy, 2015), have failed to produce a conclusive answer (whether theoretical or empirical) on the question of the strength, direction and how workforce diversity affects staff performance and or productivity; instead, researchers recommended for continued research to be done. This study intended to fill this gap by adding to the available evidences on the effect of workforce diversity (age, gender and nationality) on academic staff productivity in private chartered universities in Central, Uganda.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0 Introductions**

This chapter presents the overall procedure and methodologies followed during the process of carrying out this investigation. It further describes the manner in which data were collected, analysed, presented and interpreted. It thus entails the research philosophy, design, population, sample size, sampling techniques, research instruments, data collection procedures, data analysis and ethical considerations.

#### **3.1 Research Philosophy**

The study is anchored on Pragmatism. Pragmatism derives from the work of Pierce, James, Mead, and Dewey (Cherryhomes, 1992). Other writers include Murphy (1990), Patton (1990). Pragmatism as a worldview arises out of actions, situations, and consequences rather than antecedent conditions as in post-positivism. According to Patton (1990), there is a concern with applications, what works, and solutions to problems. Instead of focusing on methods, researchers emphasize the research problem and use all approaches, both qualitative and quantitative to understand the problem. (Rossman and Wilson, 1985).

A major underpinning of pragmatist epistemology is that knowledge is always based on experience. One's perceptions of the world are influenced by our social experiences. Each person's knowledge is unique as it is created by her/his unique experience

There are four characteristics of pragmatism: the rejection of skepticism; the willingness to embrace fallibilism; the rejection of sharp dichotomies such as those between fact and value, thought and experience, mind and body, analytic and synthetic and others and what is called 'the primacy of practice'. (Creswell, 2014).

As a philosophical underpinning for mixed method studies, it conveys its importance for focusing attention on research in social science problems including education and then using pluralistic approaches to derive knowledge about the problem. (Teddlie, 2010). According to Morgan (2007), pragmatism provides a philosophical basis for research; that pragmatism is not committed to any one system of philosophy and reality. this applies to mixed methods research in that inquirers draw literally from both qualitative and quantitative assumptions when they engage in their research. In addition, according to Morgan (2007), pragmatist do

not see the world as an absolute unity. In similar way, mixed methods researchers look to many approaches for collecting and analyzing data rather than subscribing to only one way, that is qualitative and quantitative. Thus, in mixed methods research investigators use quantitative and qualitative data because they work to provide the best understanding of research problem. Thus, for mixed method researchers, pragmatism opens door to multiple methods, different worldviews, and different assumptions, as well as different forms of data collection and analysis.

According to Morgan (2013), the difficulty of designing and carrying out mixed method research (MMR), helps explain the field's attraction to the portions of pragmatism. That highlight workable approaches to problem solving. Mixed method research as a research community has a strong tendency to emphasize the "how" to aspects of research, however, this captures only part of the message of pragmatism, which places more importance on question about "why" to do the research in a given way. Within Dewey's pragmatism, its emphasis on experience, ontological arguments about either the nature of the outside world, or the world of conceptions are just the same. Pragmatism as a paradigm can account for one of the most distinctive features of previous paradigm that is post-positivism and constructivism. As Hall (2013), puts it, pragmatism offers "an alternative epistemological paradigm". In the new worldview, knowledge consists of warranted assertions that results from taking actions and experiencing the outcomes. Pragmatism as a paradigm begins from the new sets of beliefs that guide new kinds of actions. It emerged through its associations with mixed method research (MMR), which focus on practical, procedural issues about how to combine the strengths of qualitative and quantitative methods rather than philosophical claims.(Morgan, 2013).

### **3.2 Research Design**

A research design is a planned structure or procedural strategy that a researcher adopts in order to obtain answers to the research questions (Kumar, 2018). It is an action plan that is developed by making decisions that reflects four aspects of research, that is; the research paradigm, the research purpose, the techniques to be used and the situation for observation (Blanche, Durrheim & Painter, 2018).

In order to triangulate the result for a better conclusion. It shall be a descriptive correlational, a cross-sectional survey design was used. The design was typically used because, the researcher was interested in establishing the existence, direction and magnitude of effect the study's independent variables (gender, age and nationality diversity) have on the dependent variable (productivity). The descriptive design was associated with the research questions that intended to investigate the extent of gender diversity, age diversity and nationality diversity and the effect each one has on staff productivity, as well as the combined effect the three diversity dimensions taken together. The data collected from each academic staff was extracted once and questionnaires were distributed at the same time period, where each academic staff responded to questions on the two variables (diversity and productivity). This enabled matching, cross correlations, and so estimating the effect of the independent variable onto the dependent variable was not misleading (Kumar, 2018). According to Kumar (2018); Amin (2005), in situations where the respondents are required to answer at the same time, questions on independent and dependent variables, a cross sectional survey design is the most suitable.

The study followed mixed research approach, with a quantitative dominance. In this line, both quantitative and qualitative data was collected. The main instrument of data collection was a questionnaire for quantitative data which were given to the academic staff to answer, which was supplemented by qualitative data collected through face-to-face interviews with selected academic staff from the universities under study. Following the observation that most of the previous studies on workforce diversity and staff productivity were dominantly quantitative and with the researcher's observation that most diversity measures are qualitative, the researcher deemed it necessary to use a mixed method approach. The qualitative approach was based on this philosophy that, how aspects of diversity such as gender, age and nationality impact on productivity of academic staff, cannot fully be measured using numbers, rather can be explained using words. That is why the researcher had to engage participants into face-to-face interviews and from their explanations, expressions and attitudes, it would be easier to understand how diversity impacts on productivity.

### **3.3 Research Population**

The target population in this study was 1109 academic staff from the six (6) chartered private universities in Central, Uganda. These were from Kampala International University, ISBAT University and Kampala University, Nkumba University, Uganda Christian University and

Ndejje University. These Universities today are so diversified in terms of academic staff and yet they are still grappling with challenges of staff productivity. Most of the academic staff in private universities including expatriates are overloaded and that there is no time for research and community service. And in addition, most of the staff are teaching in different universities which has little time to concentrate on teaching and other assignment to them which makes them less productive. The researcher had a belief that managing a diverse workforce would give an edge to these universities, by exploiting the different capacities of their staff. This required that data on how these staff are productive is collected, analysed and matched with their diversity characteristics, to enable the researcher derive insights into whether diversity impacts on productivity. The best way was to hear from the horse's mouth on the two variables, if matching was to be effective. The six universities had a big population of academic staff, that would allow to draw generalisation (Amin, 2004).

### 3.4 Sample Size

The sample size determination was based on Krecjie and Morgan Table (see appendix XII). According to this table, for a population size of 1109, a sample of 385 should be selected, hence the sample size for this study. Table 3.1 shows how the population and sample size were distributed among the six universities studied.

**Table 3.1 Target Population and Sample Size**

No	University	Population	Sample Size	Sample Technique
1.	University A	231	80	Simple Random Sampling
2.	University B	121	50	Simple Random Sampling
3.	University C	187	75	Simple Random Sampling
4.	University D	121	50	Simple Random Sampling
5.	University E	282	85	Simple Random Sampling
6.	University F	167	70	Simple Random Sampling
	<b>Totals</b>	<b>1109</b>	<b>385</b>	

Source: Human Resource Offices (2022)

### 3.5 Sampling Procedures

The researcher employed probability sampling where the respondents had equal chance to be selected. This study employed simple random sampling technique, to select respondents. According to Hayes (2019), simple random sample is a probability or statistical sampling technique in which each member of the population has an equal chance of being chosen. A simple random sample is meant to be an unbiased representation of a population. Simple random sampling technique was used because it is one of the best techniques, that produces

the most reliable results (Sumil, Sumil & Kibuuka, 2013; Sekaran, 2003). Using this technique, the researcher accessed staff lists from the human resource departments of the six chartered private universities, then using the proportionate sample sizes, as indicated in Table 3.1, a rotary approach was used. The researcher used a random number generator from ENA software to generate a random list for each university. Academic staff whose serial numbers were selected on the random list generated were contacted and questionnaires were administered among them. In cases where the staff who was randomly selected could not be reached due to one reason or another, the researcher randomly selected another staff from the list. This was done until the required number of the sample size was realized.

### **3.6 Data Collection Instruments**

The researcher utilized both a questionnaire and an interview guide to gather data from the respondents;

#### **3.6.1 Research Questionnaires**

The questionnaire was the main data collection instrument for this study, which was supplemented by an interview guide. The questionnaire was divided into two sections; the first section contained questions on the demographic information of respondents. This section also helped to collect data on workforce diversity. There were six questions in this section, all of which were closed ended and used to collect categorical data. The second section involved questions on academic staff productivity. This section was also subdivided into three parts, following the three measures of staff productivity, as indicated in the conceptual framework (Fig. 2.1), which include teaching productivity (10 questions), research productivity (10 questions) and community service productivity (09 questions). All questions in this second section were closed ended and were based on a four-point Likert scale format, with ratings ranging from lowest (1) for strongly disagree to the highest (4) for strongly agree. Respondents (academic staff) were asked to rate their level of productivity by indicating the extent to which they agree or disagree with the statements provided. The questions were designed by the researcher, using ideas from conceptual and theoretical literature review.

#### **3.6.2 Interview Guide**

An interview guide was used to collect qualitative data employed to supplement the quantitative data collected using a questionnaire which is composed of nine (9) items. Face to face interviews were conducted with two participants (academic staff) purposively selected

from each of the six universities. In total, 12 interviews were conducted, two from each university. Interviews was used to obtain data that were more detailed of which might not have been effectively collected through the questionnaire. Interview data helped to reduce the weaknesses of quantitative data and confirm the results.

### **3.7 Validity and Reliability of the Instruments**

#### **3.7.1 Validity of Instruments**

Validity is the extent to which the research instrument measures what it is intended to measure (Kumar, 2011). For this study, the validity of the research instruments was ensured through face and content validity methods. Using the face validity method, the researcher requested an expert in the field ensure that the question items were clear and correctly written. The views from these experts were used to edit and improve the instruments. Additionally, to ensure face and content validity of instruments, that is both questionnaire and interview guide , the instruments were developed under close guidance of the supervisor. To ensure content validity of instruments, three experts were used as judges for the questions which were relevant and those which were not. The experts gave their opinions on the relevance of the question items. Then, a content validity index (CVI) was computed to finally test the validity of instruments, using the following formula;

$$\text{CVI} = \frac{\text{Number of items rated relevant}}{\text{Total number of items in the questionnaire}}$$
$$\text{CVI} = \frac{33}{36} = \underline{\underline{0.917}}$$

The CVI results indicate that the 0.917 is higher than the minimum of 0.70 required for the research instruments to be valid, as supported by Amin (2005), hence the instrument was declared valid.

#### **3.7.2 Reliability of Instruments**

Reliability is the extent to which the measuring instrument can produce consistent results when used on the same groups of individuals repeatedly to measure the same variable under the same conditions (Kumar, 2011; Amin, 2005). To determine the reliability of the instrument, research questionnaire and interview guide were piloted using thirty academic

staff from International University of East Africa (IUEA} who were not part of the respondents.

The researcher used Cronbach's alpha to compute the reliability in this study. According to the rule Cronbach's Alpha coefficient of 0.70 and above is regarded as satisfactory, whereas a value below .70 indicate a lack of reliability. Nevertheless, the interpretation of internal consistency reliability using composite reliability coefficients was based on the rule of thumb provided by Bagozzi and Yi (1988) as well as Hair *et al.* (2018), suggested that the composite reliability coefficient should be at least .70 or more.

### Reliability Statistics

Cronbach Alpha	Number of items
0.912	36

Based on the results, the Cronbach alpha coefficient of 0.912 is far above the minimum value 0.70. Thus, the instrument was considered reliable.

### 3.8 Data Gathering Procedures

Before the administration of the questionnaires, an introduction letter was obtained from the Directorate of Higher Degrees and Research (DHDR). After obtaining the introduction letter, the researcher secured a clearance from the Research Ethics Committee (REC). Then the researcher presented the introduction letter and the clearance from ethics committee to the six (6) private chartered universities understudy. Lists of academic staff from the Human Resource Officers of the said six universities were then obtained. The researcher, together with research assistants, approached the sampled respondents, explained to them about the study and requested them to sign the informed consent form and then administered the questionnaires. During the administration of the questionnaires, respondents were requested to answer completely and not to leave any part of the questionnaire unanswered. The filled questionnaires were received immediately after being filled, except in some cases where the staff requested the data collector to pick the instrument at a later date. On retrieval, all returned questionnaires were checked if all had been fully answered. After the administration of the questionnaires, the researcher scheduled an interview session with the selected academic staff from each university. The interview was scheduled on the convenient time of the academic staff. The data gathered were coded and entered into the computer's Statistical Package for Social Scientists (SPSS), which was then used to analysis the data.



### 3.9 Data Analysis

After retrieving the questionnaires, the researcher checked through and sorted out those questionnaires which were left blank or incompletely filled. The researcher entered the questionnaire responses into the computer using statistical package for social scientists (SPSS). The data entered were processed and prepared for further analysis. Before analysis, the researcher conducted the diagnostic tests to check if there are cases of ‘missing’ data, outliers, checked for normality, linearity and multicollinearity. In case of diagnostic problem, data treatment and transformations were done before final analyses were conducted. For example, missing data within the acceptable range were dealt with using the mean replacement method, while variables and cases with missing responses beyond the acceptable range were dropped from further analysis. After data cleaning, data were then analysed using frequency counts and percentage distributions, for the demographic characteristics of the respondents. The researcher used means and standard deviations to describe the data on the dependent variable (productivity). The following scale guide was used to interpret the means.

**Table 3.3: Mean Interpretation Scale**

Mean Range	Response Mode	Interpretation
3.26- 4.00	Strongly Agree	Very High Productivity
2.51-3.25	Agree	High Productivity
1.76-2.50	Disagree	Low Productivity
1.00 – 1.75	Strongly Disagree	Very Low Productivity

Several other statistical tests were conducted to achieve the study objectives. For example, to achieve objective one (gender diversity and academic staff productivity), the student’s two independent samples t-test was used. This was suitable because, gender was a binary categorical variable and productivity was numerical (Productivity index). According to Amin (2004) when testing a hypothesis where the independent variable is binary categorical and the dependent variable is numerical, the two independent samples’ t-test is the most appropriate statistical tool. Thus, the first hypothesis of the study was tested at 5% level of significance. For the second objective (age diversity and academic staff productivity), the One-way Analysis of Variance (ANOVA) was used to test the second hypothesis. This was suitable because, age (independent variable) was categorical with more than two categories and productivity (dependent variable) was numerical (Amin, 2005). The same one-way ANOVA

was employed for the third objective (nationality and productivity) and to test the third hypothesis, with the same justification. Finally, for the fourth objective and hypothesis, the Ordinary Least Squares (OLS) method of Regression analysis was used to estimate the combined effect of the independent variable (workforce diversity) on the dependent variable (academic staff productivity).

The OLS regression is a linear regression technique used for parameter estimation in a model (Cohen, Cohen, West & Aiken, 2003; Montgomery, Peck & Vining, 2012). It is based on minimization of “the sum of squared residuals between the actual and predicted values” (Cohen *et al.*, 2003).

Qualitative data was analysed by grouping similar kinds of information together in categories and relating different ideas and themes to one another. The researcher then used overcharging themes in the data which helped in finding possible and plausible explanations for the findings. Finally, the researcher quoted the words of each key interview informant who participated in an interview so as not to distort the content matter by explaining it in his own understanding. The quotes were put between quotation marks so as to distinguish it from the rest of the texts in the study.

### **3.10 Ethical Considerations**

The following ethical considerations were observed.

**Informed Consent:** A fundamental ethical principle of social research is: Never coerce anyone into participating; participation must be voluntary at all times. Permission alone is not enough; people need to know what they are being asked to participate in so that they can make an informed decision. In this study, participants were made aware of their rights and what they were getting involved in by reading and signing a statement giving informed consent an agreement by participants stating they are willing to participate in the study and they know something about what the research procedure involved.

**Privacy:** Survey researchers invade a person’s privacy when they probe into beliefs, backgrounds, and behaviours in a way that reveals intimate private details. Experimental researchers sometimes use two-way mirrors or hidden microphones to “spy” on research participants. Even if people know they are being studied, they are unaware of what the experimenter is looking for. However, in this study, privacy of the participants was observed

and the participant were explained to about the study and their role in it at their own terms and conditions.

**Anonymity:** Anonymity means protecting the identity of specific individuals from being known. In this context, participants remain anonymous or nameless during the report writing. As for this study, the researcher protected privacy by not disclosing a participant's identity after information was gathered. The researcher gave fictitious names by use of codes during the reporting stage.

**Confidentiality:** This can include information with participant names attached, but we hold it in confidence or keep it secret from public disclosure. The researcher released data in a way that does not permit linking specific individuals to responses and presented data publicly only in an aggregate form (e.g., as percentages, means, and others).

### **3.11. Limitations of the Study**

There are some inconceivable factors that were beyond the researcher's capability to overcome;

1. Extraneous Variables – were beyond the researcher's control like personal biases, and honesty of the respondents.
2. Testing – the use of research assistants could have brought inconsistencies in the administration of the respondents.
3. The study was limited only to six chartered private universities which may pose difficulty in making general conclusions.
4. Attrition- not all questionnaires that were distributed were retrieved. Out of 375 questionnaires only 360 were adequately filled questionnaires. Retrieval rate is 93% which considered sufficient to provide reliable and adequate information on workforce diversity and academic staff productivity in private chartered universities.

## CHAPTER FOUR

### PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

#### 4.0 Introduction

This section of the thesis presents the findings of the study derived from data collected from the field. The chapter also shows how the data were analysed and interpreted, as per the study objectives. Data analysis was done using the Statistical Package for the Social Sciences (SPSS) software. This section starts with the response rate, diagnostic tests, then presentation of a summary of respondents' demographic characteristics, then the findings on the dependent variable (academic staff productivity) and finally results according to the study objectives are presented and the study hypotheses are also answered.

#### 4.1 Questionnaire Retrieval and Response Rate

In total, the researcher distributed 375 questionnaires, the number equal to the sample size (Table 3.1). Since the respondents were academic staff, the researcher expected them to understand the topic of the study and the value of research, so their response rate was expected to be very high. That is why no extra questionnaires were administered. By the time the researcher completed the questionnaire data collection, only 359 questionnaires were returned, as summarised in table 4.1

**Table 4.1: Questionnaire Response Rate**

<b>Response</b>	<b>Frequency/Rate</b>
Questionnaires sent	375
Required Sample size	375
Retrieved Questionnaires	359
Adequately filled questionnaires	350
Questionnaires removed	09
Questionnaires not retrieved	16
Response rate as per sample size	93%

Source: Field data (2022)

As shown in Table 4.1, a response rate of at least 93% was attained. From the 375 tools retrieved back, only 09 were not adequately answered, so they were removed from analysis, since their missing responses were more than 25%. Sekaran (2003) suggested that such incomplete questionnaires should be dropped from analysis. According to Amin, a response

rate of 75% is adequate for a study in social sciences. The response rate for this study (93%) is above 75% and so the data is adequate for further analysis and generalisation of results.

## **4.2 Diagnostic tests**

Before conducting the key analyses for this study, data was first of all subjected to screening, to check for missing responses, normality, outliers, linearity and multicollinearity. This was necessary to ensure that no statistical assumptions are violated.

### **4.2.1 Testing for Missing Responses**

One common problem in statistical data analysis is missing data. This is because gaps in data can seriously decrease the statistical power of study findings and reduce their applicability to a wider context (Dong & Peng, 2013). Bauman and Card (2010) advise researchers to always establish the missing quantity, patterns and reasons for missing and consider the possibility of filling the gaps, before such data are analysed. Bauman and Card (2010) warns that, ignoring the missing data issue may adversely affect the reliability of the study findings. Different researchers suggest different missing data rates that can be acceptable in any given study. For example, Schafer (1999) gave a missing data rate of utmost 5% while Bennett (2001) suggested that the missing data rate should not exceed 10%. In this study, Bennett's (2001) cutoff point of 10% was used in analysing the missing responses. Analysis of missing data was done using descriptive or summary statistics showing frequency counts and percentage distribution of data gaps and the results are shown in Table 4.2.

**Table 4.2: Univariate Statistics for Analysis of Missing Values**

Variables	N	Missing	
		Count	Percent
Teaching 1	350	0	.0
Teaching 2	347	3	.9
Teaching 3	340	10	2.9
Teaching 4	344	6	1.7
Teaching 5	343	7	2.0
Teaching 6	346	4	1.1
Teaching 7	346	4	1.1
Teaching 8	346	4	1.1
Teaching 9	347	3	.9
Teaching 10	348	2	.6
Research 1	346	4	1.1
Research 2	344	6	1.7
Research 3	320	30	8.6
Research 4	335	15	4.3
Research 5	319	31	8.9
Research 6	340	10	2.9
Research 7	327	23	6.6
Research 8	329	21	6.0
Research 9	342	8	2.3
Research 10	343	7	2.0
Comunity_svc1	342	8	2.3
Comunity_svc2	340	10	2.9
Comunity_svc3	339	11	3.1
Comunity_svc4	326	24	6.9
Comunity_svc5	335	15	4.3
Comunity_svc6	342	8	2.3
Comunity_svc7	336	14	4.0
Comunity_svc8	340	10	2.9
Comunity_svc9	342	8	2.3
Age	350	0	.0
Gender	345	5	1.4
EDU_LEV	350	0	.0
Religion	350	0	.0
Marriage	347	3	.9
Nationality	342	8	2.3

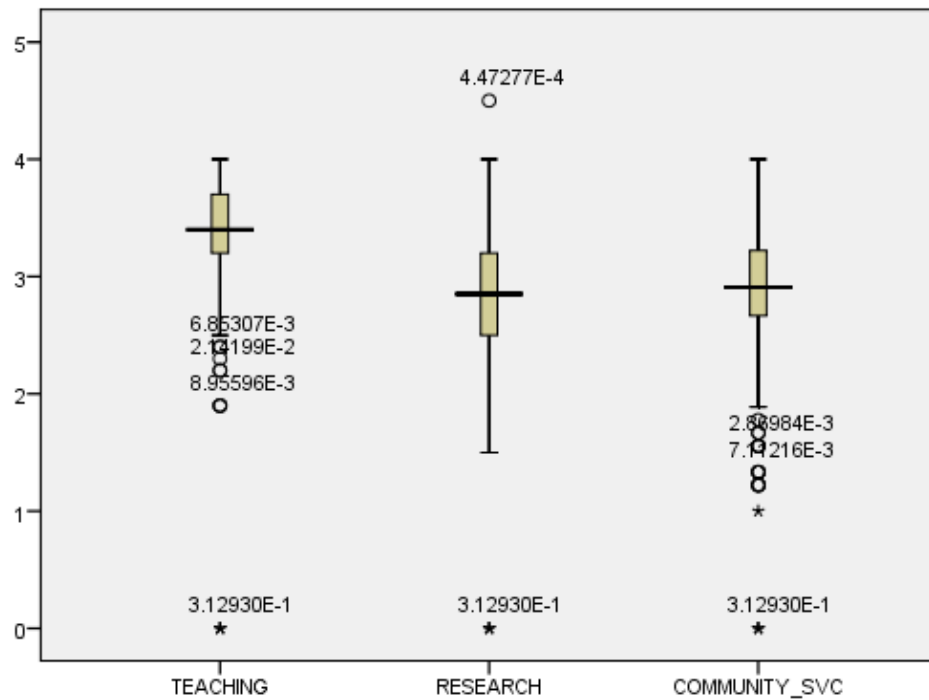
From Table 4.2, no single variable, had missing values higher than Bennett's (2001) cutoff point of 10%. As such, no variable was dropped from further analysis due to missing values.

Variables Research3, Research5, Research7, Research8 and Comunity\_svc4 had missing values above 5% exceeding Schafer's (1999) 5% threshold. This was taken to be acceptable rate according to Schlomer, Bauman and Card (2010); Bennett (2001), thus the items were maintained. A replacement method for missing values was adopted to replace them and all other variables with lower rates of missing values. Though there are several approaches to missing values replacement, in this study, the mean method was used.

#### **4.2.2 Detecting and removing presence of Outliers**

Many researchers agree on the possibility for outliers to seriously reduce the validity of a study's findings (e.g. Verardi & Croux, 2008; Tabachnick & Fidell, 2007; Dong & Peng, 2013). According to Verardi and Croux (2008) outliers are extreme responses or scores as compared to others within a data set. Presence of outliers in a dataset can lead to misleading interpretation of results (Hair, Black, Babin & Anderson, 2010; Keith, 2006; Loperfido, 2020; Kim, Kim & Ergün, 2015). Ali, Sadam and Mohammad (2022) indicate that "outliers in a data set can result in erroneous statistical inferences, unreliable hypothesis testing and inaccurate results and conclusions". Therefore, before serious analysis is done, researchers are advised to check and find out if such outlying values do exist and if so remove them or replace them (Kline, 2011). For this study, detection and solving the problem of outliers was done using the boxplot method (Tabachnick & Fidell, 2007; Schwertman, Owens & Adnan, 2004). The test results for outliers are indicated in Figure 4.1.

**Figure 4.1 showing Box Plot of Overall Group Responses**

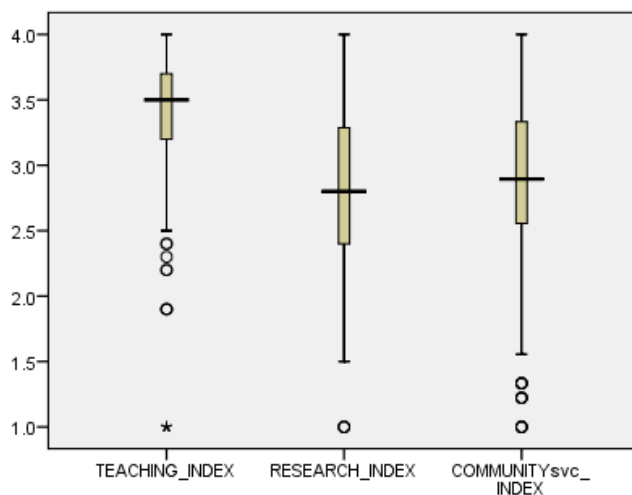


**Fig. 4.1: BoxPlot for Identifying Outliers**

As indicated in Fig. 4.1, the serious outlier (higher value) was present with the RESEARCH variable. Also, the variable TEACHING and COMMUNITY\_SVC have lower outlying values. The outliers were removed from the data set and so the second boxplot in Figure 4.2 shows no serious outliers, hence the data was accepted for further analysis.

The box plot shows the pattern of responses for different variables. It shows that teaching productivity has few outliers which were removed and corrected in Figure 4.2.

**Fig 4.2 Showing box plot after correction (removal of outliers)**



**Fig. 4.2: Box Plot for Outlier Detection**



### 4.2.3 Normality Test

It is a common practice by researchers in social sciences to establish if their data has a normal distribution before conducting multivariate analyses. Several authors have indicated that that it is common for survey data not to follow a normal distribution trend (Hair *et al.*, 2014b), which can reduce the power of the results from analysis (Hair *et al.*, 2014a; Stevens, 2012; Hair, Sarstedt, Ringle & Mena, 2012). It is thus highly recommended before conducting multivariate analyses, researchers should try to establish if the they have, satisfies the key normality assumptions. Although a number of statistical procedures have been developed to detect violation of normality assumptions, this study uses the skewness and kurtosis statistics to deal with the normality checks. Various rules of thumb have been suggested by different scholars but for purposes of this study, the researcher uses the rule provided by Kline (2011) indicating that “normality assumptions are violated if the skewness of a given variable exceeds  $\pm 3$  and kurtosis is above  $\pm 10$ ”. The researcher used the SPSS procedures to generate the skewness and kurtosis indices used to ascertain the normality of the data and the results are indicated in Table 4.3.

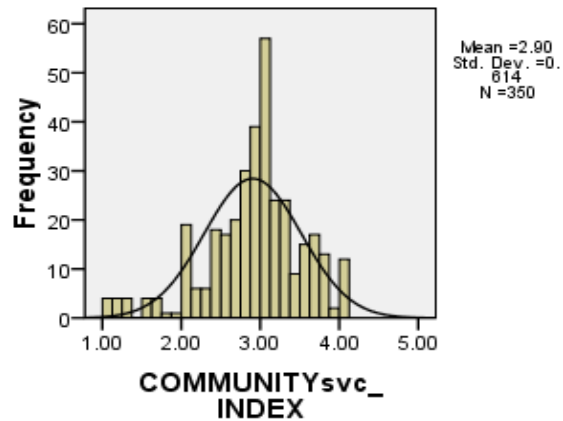
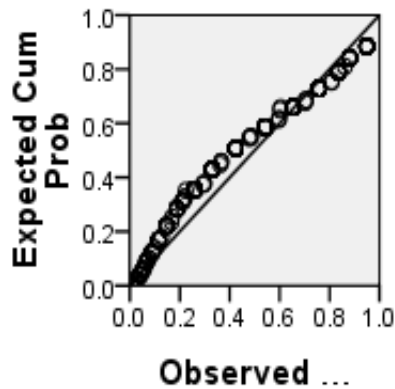
As observed from Table 4.3, normality assumptions were not violated since all the items in the dataset have a skewness and kurtosis statistics do not exceed  $\pm 3$  and  $\pm 10$  respectively.

**Table 4.3: Skewness and Kurtosis indices for Testing Normality**

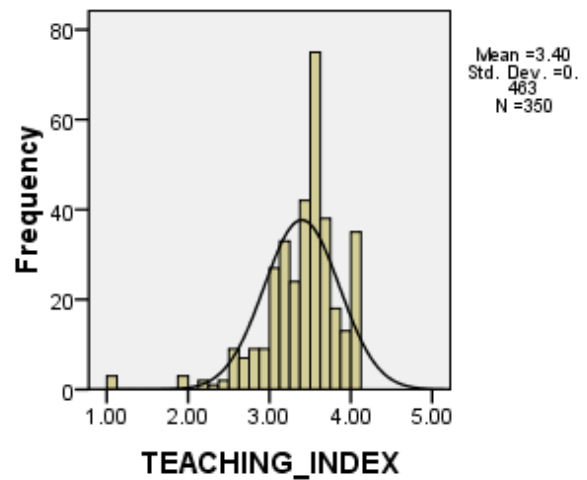
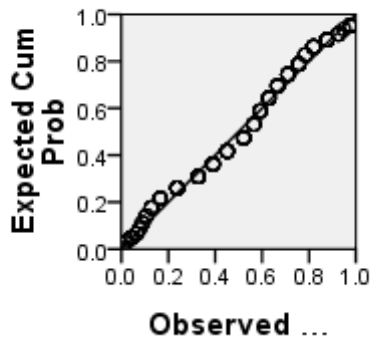
	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
Using simple terms/language to explain the lesson	-2.460	.130	8.425	.260
Try to motivate the student during lectures to arouse their interest	-1.913	.131	6.500	.261
To some extent am considerate with my students	-1.302	.132	4.175	.264
my students are assigned course related to read	-1.664	.131	5.198	.262
Always have extra time to attend to my students	-1.219	.132	2.444	.263
Always start my class on time and end it on time	-1.389	.131	2.640	.261
I do extra teaching if it is necessary	-1.203	.131	2.526	.261
Finish my syllabus on time	-1.295	.131	2.318	.261
I give my students assigned topics to read	-1.415	.131	3.553	.261
I assess my students work	-1.652	.131	2.354	.261
I help supervise the students research to completion	-1.953	.131	4.530	.261
I have time to supervise my students in research	-1.323	.131	2.584	.262
I have published articles in journals locally and internationally	-.272	.136	-.982	.272
I have written a book / book chapter	-.134	.133	-1.058	.266
I usually visit students on industrial assignment/ school practice	-.646	.137	-.561	.272
I publish at least one article in a year	.172	.132	-1.130	.264
I am a member of research group in our college/university	-.540	.135	-.404	.269
I always encourage students to do research	-1.013	.134	.254	.268
I have presented some paper in conference (s)	-.079	.132	-1.264	.263
I always attend seminars/trainings to present my research work	-.208	.132	-1.268	.263
I usually get involved in community service	-1.656	.132	2.720	.263
I participate in community activities like environmental issues	-1.138	.132	1.354	.264
I participate in civic duties in community	-.848	.132	1.131	.264
I always participate service and programs	-.774	.135	.568	.269
I participate in trainings and seminars for community service	-.749	.133	.862	.266
I sometimes participate in training youth in community activities	-.544	.132	.121	.263
I sometimes participate in organizing programs for community service	-.438	.133	-.113	.265
I participate in distribution of food & other items to less privileged community	-.376	.132	-.525	.264
I participate in medical mission/camp in the community	.016	.132	-1.014	.263

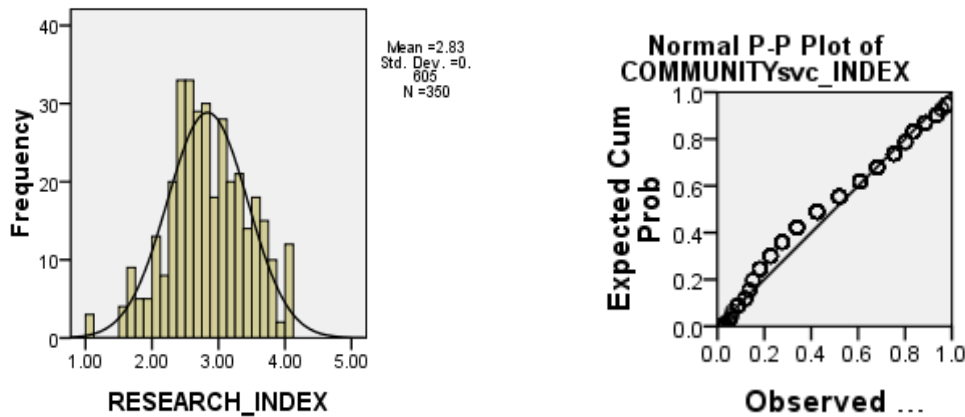
In addition, the graphical method was also employed to check for normality of the data collected. In this study, plotting of the residuals (P-P Plots) was done to ascertain the probability that the data collected was normal. This was followed by plotting the regression standardized residuals on a histogram, all of which helped to confirm that the data was normally distributed and so was suitable for multivariate analysis. Figure 4.3 show the histogram and the normal probability plots (P-P Plots) of the regression standardized residual, respectively.

**Normal P-P Plot of TEACHING\_INDEX**



**Normal P-P Plot of RESEARCH\_INDEX**





**Fig. 4.3: Normal P-P Plots and Histograms for Regression Residuals**

Fig. 4.3 reveals that, data collected was normally distributed as can be seen on the normal P-P plots and the curve. Therefore, the data was suitable for multivariate analysis.

#### 4.2.4 Testing for Linearity

Under linearity concept, it is assumed that there is a straight-line relationship between independent and dependent variables of the study (Rovai, Baker & Ponton, 2013). It was thus important to establish the nature of the relationship (linear or not) between the study's independent variable (work diversity) and the dependent variable (academic staff productivity). This helps to avoid under- and over estimation of the true relationship between variables under study (Saunders, Lewis & Thornhill, 2009). To test for linearity among independent variables (workforce diversity) and the dependent variable (staff productivity), a correlation matrix method was employed in this study. Mertler and Vannatta (2005) recommend that before running a regression model, a linearity test is done.

Theory and previous research studies (e.g., Gedeas & Knoard, 2015; Horwitz & Horwitz, 2016; Jackson *et al.*, 2015) suggested a positive linear relationship between some factors of workforce diversity and employee productivity. In this study, linearity was tested using the linear regression Listwise correlations. As Pallant (2010) indicates, linearity assumptions are fulfilled if the correlation coefficients are below 0.9. Results of linearity test are shown in Table 4.4.

**Table 4.4: Correlation Matrix for Linearity test**

Listwise Correlations			
	TEACHING_INDEX	RESEARCH_INDEX	COMMUNITY SERVICE_INDEX
TEACHING_INDEX	1		
RESEARCH_INDEX	.360	1	
COMMUNITY SERVICE INDEX	.340	.566	1

As depicted in Table 4.4, the study variables are not highly correlated since no correlation coefficient exceeds 0.90. So, there was no evidence of linearity assumption being violated in this study.

#### **4.2.5 Testing for Multicollinearity**

Multicollinearity is a condition where in a dataset, the independent variables are highly correlated among themselves (Hair, Black, Babin & Anderson, 2010; Hair, Sarstedt, Hopkins and Kuppelwieser, 2014b; Hayes, 2018). Presence of multicollinearity can be a big problem in any research dataset, because it can cause serious defects on the coefficients of regression estimates, reducing their statistical power (Tabachnick & Fidell, 2007; Hair, Ringle & Sarstedt, 2013). When a dataset has a multicollinearity problem, it is not easy to determine the predictive strength of each of the independent variables towards variations of the dependent variable. This comes from the fact that the predictor variables are conflicting (Hair, Hult, Ringle & Sarstedt, 2014a; Gorsuch, 2015; Creswell, 2014). It is therefore recommended that before multiple regression analysis is applied on any research dataset, the researcher should first establish the extent to which the constructs of the independent variable are intercorrelation (Hair *et al.*, 2010; Aiken & West, 1991).

Researchers have developed various approaches for detecting the presence of multicollinearity in any dataset but for this study, three tests were used; the Tolerance value, Value Inflation Factor (VIF) and correlation index (Pallant, 2010; Hair, Black, Babin, Anderson & Tatham, 2006). According to Hair *et al* (2014a); Neuman (2011), a Value Inflation Factor (VIF) greater than 5 and a Tolerance value less than 0.20 are a sign that multicollinearity assumptions are being violated. The researcher in this study computed the Tolerance value and Value Inflation Factor (VIF) using SPSS and also generated a

correlation matrix using the variable indices and the results are shown in Tables 4.5 and 4.6 respectively.

**Table 4.5: Multicollinearity Test**

Variables	Collinearity Statistics	
	Tolerance	VIF
Age	.664	1.505
Gender	.956	1.046
Education level	.685	1.460
Religion	.905	1.105
Marital Status	.802	1.248
Nationality	.908	1.102
TEACHING_INDEX	.843	1.186
RESEARCH_INDEX	.648	1.543
COMMUNITY svc_INDEX	.658	1.519

Source: Computed by the Researchers from Primary Data (2022)

Results in Table 4.5, indicate that there is no problem of Multicollinearity in the study's dataset, since no variable with a tolerance value below 0.2 and no variable is seen with a VIF above 5.

### 4.3 Respondents' Demographic Characteristics

Respondents for this study were the academic staff from the six (6) private chartered universities in Kampala, including Kampala International University (KIU), International School of Business and technology (ISBAT), Kampala University (KU), Nkumba University (NU), Uganda Christian University (UCU) and Ndejje University (NU). These academic staff were asked for their facts about gender, age, education level, work experience and marital status. The data on demographics was analyzed using frequency counts and percentage distributions and is presented in Table 4.6.

**Table 4.6: Profile Characteristics of Respondents**

<b>Profile Characteristics</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Gender</b>		
Male	225	65.2
Female	120	34.8
<b>Total</b>	<b>345</b>	<b>100.0</b>
<b>Age</b>		
20 - 30 years old	101	28.9
31 - 40 years old	111	31.7
41 - 50 years old	117	33.4
51 - Years and above	21	6.0
<b>Total</b>	<b>350</b>	<b>100.0</b>
<b>Education</b>		
Bachelor's degree	96	27.4
Master's Degree	161	46.0
Doctoral degree	92	26.3
Others	1	.3
<b>Total</b>	<b>350</b>	<b>100.0</b>
<b>Religion</b>		
Christian	279	79.7
Non-Christian	71	20.3
<b>Total</b>	<b>350</b>	<b>100.0</b>
<b>Marital status</b>		
Single	183	52.7
Married	158	45.5
Widow/Widower	6	1.7
<b>Total</b>	<b>347</b>	<b>100.0</b>
<b>Nationality of Respondents</b>		
Ugandan	271	79.2
Kenyan	35	10.2
Nigerian	20	5.8
Rwandese	14	4.1
Others	2	.6
<b>Total</b>	<b>342</b>	<b>100.0</b>

Source: Computed by the Researchers from Primary Data (2022)

The results in Table 4.6 indicate that the male staff dominated the sample with 65.2%, leaving only 34.8% for females. This implies that private chartered universities are still dominated by male staff.

With respect to age, the results reveal that, although staff of 41-50 are slightly more than others with 33.4%, there is an even distribution of the junior and senior staff in these universities. This is because, results show that almost 60% of the academic staff are between 20-40 years (junior staff), while almost 40% are above 40 years (senior staff).

The results on education level indicate that majority of the academic staff (46%) have a Master's degree, 27.4% are Bachelor's degree holders while 26.3% are PhD holders. These results confirm that there is a fair distribution of juniors and seniors among the academic staff in the sampled private universities. An important revelation is that universities recruit a big number of fresh graduands and train them further but as they become more experienced, many are lost. This suggests that, possibly universities still have a challenge in retaining senior staff at the desired higher levels of education such as PhD. Results indicate that more than 73% of the staff are Masters and Bachelor's Degree holders. Since most of the sampled institutions are having postgraduate programs, it is expected and required that they have more PhD staff who are required to supervise research at a Postgraduate level.

With respect to staff religion, the Christians dominated other religions with more than 79%, indicating unexplained imbalance in religious diversity. Regarding marital status, the findings reveal that majority (52.7%) are not yet married, followed by those who are married with 45.5%. These results support the other findings on age distribution and education level, where a big number of staffs 20 – 40 years and had either bachelor's or Master's degree. As for nationality, the biggest percentage (79.2%) of the staff are Ugandan, leaving only almost 20% from other countries. This is expected since the diversity by mixing in more foreign staff may become more expensive due to differences in terms of treatment requirements for foreign staff.

#### **4.4 Description of the Dependent Variable**

Productivity among the academic staff as the dependent variable in this study, was measured with the three major functions of a staff in university, that is teaching, research and community service. To measure staff productivity on each of these three elements, 10 qualitative statements were used and each statement was identified with an expected accomplishment for an academic staff. These academic staff were requested to rate themselves on the extent to which they were able to accomplish each task by in their period of tenure in the university where they were found to be serving by the time of the study. These academic staff were asked to rate their productivity by indicating the extent to which they agree or disagree on each statement on a four-point Likert scale, with the following response modes; 1 = strongly disagree; 2 = disagree; 3 = agree and 4 = strongly agree. In this section the researcher summarises their responses with means and standard deviation, as per Table 4.7.



**Table 4.7: Descriptive Statistics on Staff Productivity in Chartered Private Universities of Central Uganda (n=359)**

Measures of Productivity	Mean	SD	Interpretation
<b>Teaching</b>			
I use simple terms/language to explain the lesson	3.631	.6230	Very high
I try to motivate the student during lectures to arouse their interest	3.559	.5998	Very high
I assess my students work	3.474	.7917	Very high
I assign some course related resources to my students to read	3.421	.6465	Very high
I am considerate with my students to some extent	3.376	.6192	Very high
I give my students assigned topics to read	3.372	.6835	Very high
I always start my class on time and end it on time	3.329	.7502	Very high
I finish my syllabus on time	3.306	.7523	Very high
I do extra teaching if it is necessary	3.269	.7182	Very high
I always have extra time to attend to my students	3.236	.7337	High
<b>Average Mean</b>	3.397	.4631	Very high
<b>Research</b>			
I help supervise the students research to completion	3.555	.7050	Very high
I have time to supervise my students in research	3.384	.7088	Very high
I always encourage students to do research	3.194	.9109	High
I usually visit students on industrial assignment/ school practice	2.880	.9804	High
I am a member of research group in our college/university	2.816	.9225	High
I have published articles in journals locally and internationally	2.615	1.0010	High
I have presented some paper in conference (s)	2.582	1.0668	High
I always attend seminars/trainings to present my research work	2.560	1.1184	High
I have written a book / book chapter	2.444	1.0110	Low
I publish at least one article in a year	2.320	1.0572	Low
<b>Average Mean</b>	2.835	.6048	High
<b>Community Service</b>			
I usually get involved in community service	3.412	.8098	Very high
I participate in community activities like environmental issues	3.176	.8213	High
I participate in trainings and seminars for community service	2.967	.7732	High
I participate in civic duties in community	2.920	.7699	High
I always participate service and programs	2.892	.8105	High
I sometimes participate in training youth in community activities	2.874	.8355	High
I sometimes participate in organizing programs for community	2.782	.8483	High
I participate in distribution of food & other items to less privileged	2.694	.9274	High
I participate in medical mission/camp in the community	2.415	1.0143	Low
<b>Average Mean</b>	<b>2.904</b>	<b>.6139</b>	High
<b>PRODUCTIVITY_INDEX</b>	<b>3.045</b>	<b>.4438</b>	High

**Source: Computed by the Researchers from Primary Data (2022)**

The mean ranges below were used to interpret the responses;

<i>Mean range</i>	<i>Response range</i>	<i>Interpretation</i>
3.26 - 4.00	Strongly agree	Very high productivity
2.51 - 3.25	Agree	High productivity
1.76 - 2.50	Disagree	Low productivity
1.00 - 1.75	Strongly disagree	Very low productivity

Results in Table 4.7 indicate that academic staff in the private universities selected, rated their productivity to be generally high on most indicators. For example, they rated their teaching productivity to be very high, with an average mean of 3.397. The standard deviation (SD = 0.4631) is generally low, indicating that the scores did not differ so much from the mean. As the remaining two measures of productivity, the staff rated their productivity to be high on all of them, as indicated by the average mean scores of 2.835 and 2.904 respectively. The standard deviations are also low meaning that the responses did not deviate much from the mean. The grand mean (PRODUCTIVITY\_INDEX = 3.045) also confirms that the self-rating academic staff rated themselves to be high performers. However, productivity was rated low on two indicators related to research and writing (have written a book / book chapter, mean = 2.444; and I publish at least one article in a year, mean =2.320). This shows that research writing efforts are less and even the staff themselves accepted this.

The researcher also wanted to find out if the questions in Table 4.7 were valid measures of teaching, research and community service, confirmatory factor analysis tool (CFA) was conducted. The results are shown in Tables 4.8A and 4.8B. As a multivariate tool, CFA helps to check how fit the variable measured is represented by the items in the questionnaire and whether the number of constructs generated meets the researcher's expectations (Solutions, 2017). It is helpful in verifying the factor structure of observed variables, which enables researchers to test a link between observable variables and their underlying constructs.

**Table 4.8A: Total Variance Explained for Productivity Items**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.324	28.704	28.704	8.324	28.704	28.704	4.584	15.806	15.806
2	3.673	12.667	41.371	3.673	12.667	41.371	3.878	13.374	29.180
3	2.232	7.697	49.068	2.232	7.697	49.068	3.158	10.889	40.069
4	1.386	4.779	53.847	1.386	4.779	53.847	2.712	9.352	49.421
5	1.186	4.091	57.937	1.186	4.091	57.937	2.470	8.516	57.937
6	.980	3.378	61.315						
7	.959	3.305	64.620						
8	.910	3.137	67.757						
9	.841	2.900	70.657						
10	.801	2.761	73.418						
11	.673	2.322	75.740						
12	.648	2.233	77.973						
13	.568	1.959	79.931						
14	.553	1.906	81.837						
15	.546	1.884	83.721						
16	.518	1.785	85.506						
17	.484	1.668	87.174						
18	.427	1.473	88.648						
19	.387	1.333	89.981						
20	.375	1.292	91.273						
21	.357	1.230	92.503						
22	.346	1.192	93.695						
23	.321	1.108	94.803						
24	.314	1.084	95.887						
25	.293	1.010	96.898						
26	.261	.900	97.798						
27	.236	.815	98.613						
28	.229	.789	99.402						
29	.174	.598	100.000						

The results in Table 4.8A indicate that the 29 items used to measure productivity can be reduced to five components, which have Eigen values exceeding 1.00. These five factors taken together, explain 57.937 of the variations in the 29 items. Table 4.8B shows factor loadings of the 29 items.

**Table 4.8B: Factor Loadings for Items on Productivity**

No	Items on Productivity	Component				
		1	2	3	4	5
1	I use simple terms/language to explain the lesson	.503				
2	I try to motivate the student during lectures to arouse their interest	.668				
3	I am considerate with my students to some extent	.767				
4	I assign some course related resources to my students to read	.758				
5	I always have extra time to attend to my students	.738				
6	I always start my class on time and end it on time	.637				
7	I do extra teaching if it is necessary	.713				
8	I finish my syllabus on time	.594				
9	I give my students assigned topics to read	.507				
10	I assess my students work					.635
11	I help supervise the students research to completion					.608
12	I have time to supervise my students in research			.799		
13	I have published articles in journals locally and internationally			.805		
14	I have written a book / book chapter					
15	I usually visit students on industrial assignment/ school practice			.820		
16	I publish at least one article in a year					.584
17	I am a member of research group in our college/university					
18	I always encourage students to do research			.563		.507
19	I have presented some paper in conference (s)			.580		
20	I always attend seminars/trainings to present my research work				.795	
21	I usually get involved in community service				.819	
22	I participate in community activities like environmental issues		.493		.638	
23	I participate in civic duties in community		.599		.511	
24	I always participate service and programs		.607			
25	I participate in trainings and seminars for community service		.683			
26	I sometimes participate in training youth in community activities		.744			
27	I sometimes participate in organizing programs for community service		.755			
28	I participate in distribution of food and other items to less privilege in community		.718			
29	I participate in medical mission/camp in the community	.512				

Extraction Method: Principal Component Analysis. a. 5 components extracted.

Factor loadings in Table 4.8B show that all the items (save items 17 and 22) proved to be valid measures of productivity of academic staff. This is because, all of them loaded high with loadings of 0.50 and above. This suggests that of the 29 items, 27 were valid measures

of productivity as suggested by Hair, Black, Babin, Anderson and Tatham (2006) and Schmidt and Dantas (2011). The items with factor loadings less than 0.05 (17 and 22), were dropped from further analysis, since they were regarded as invalid or unclear to the respondents. Furthermore, items 18 and 23 loaded high on two components, which means that they appeared inconsistent to the respondent and for that matter, they were excluded from further analysis.

#### 4.5 Relationship between Gender Diversity and Academic Staff Productivity in Private Chartered Universities in Central Uganda

In the first objective, the researcher wanted to examine the relationship between gender diversity and academic staff productivity in private chartered universities, Kampala Uganda. To achieve this objective, the researcher tested the first null hypothesis that; there is no significant relationship between gender diversity and academic staff productivity in private chartered universities in Central Uganda. To test this null hypothesis, the student's two independent samples t-test was used. To use an independent samples t-test, Amin (2005) indicates that, one should have data on two variables, one being binary categorical (independent variable; gender) and the second variable has to be numerical. To fulfil this condition, the researcher aggregated the items on each of the three constructs of academic staff productivity into one numerical mean index, using the SPSS transformation function. The three numerical indices of productivity (teaching, research and community service) plus the overall numeric index on productivity were then compared against the gender categories to establish the connection between the two variables. Results of this test are presented in table 4.9.

**Table 4.9: T-test Comparisons for Variations in Staff Productivity by Gender**

Gender		N	Mean	Std. Deviation	t-value	p-value	Decision on H <sub>0</sub>
Teaching Productivity	Male	229	3.39	0.47	-.16400	0.87	Accepted
	Female	121	3.40	0.45			
Research Productivity	Male	225	2.89	0.62	2.02700	0.043	Rejected
	Female	121	2.75	0.61			
Community Service Productivity	Male	229	2.89	0.63	-.44200	0.659	Accepted
	Female	121	2.92	0.58			
Overall productivity	Male	229	3.06	0.47	.65200	0.515	Accepted
	Female	121	3.03	0.40			

According to the results in Table 4.9, gender diversity seems to have no significant impact on productivity of academic staff, considering overall productivity ( $t = 0.6520$ ;  $p = 0.515$ ). Considering the three measures of productivity one by one, results indicate that research productivity significantly differed for male and female university academic staff ( $t = 2.0270$ ;  $p = 0.043$ ), since the  $p$ -value accompanying the  $t$ -statistic is less than 0.05. The null hypothesis is rejected and a conclusion is reached that research productivity has a big connection with gender diversity in universities. Results further reveal that male academic staff ( $\bar{x}_m = 2.89$ ) are more likely to be more productive in research as compared to their female counterparts ( $\bar{x}_f = 2.75$ ). But for the other two, teaching and community work productivity, gender seems to have no significant influence.

There are several qualitative findings on the issue of, who is more productive between male and female staff. One participant agreed that male staff are more productive in research compared to females. He gave several reasons that cause this difference; for example, this participant one (P1) said;

*“It is stereotyped, they think that females cannot give better research than males, which has been orchestrated for time immemorial. There is inferiority complex in the females themselves, in that in some places and people they fear to approach and make inquiries hence failing in making proper research. In some cultures, some females especially mother in-laws who might be carrying out research themselves do not ask male adults questions, hence hindering their proper research production”*

Based on the above views from P1, males are more productive in research due to inferiority complex, cultural beliefs and stereotyping. Another participant (P2) showed that males produce less research compared to males and explained that

*“Women are more restricted in terms of research, for example married women might not be more explorative as much as they want to, due to restrictions that come from their husbands, limiting their movements, for example there are some researches that you would have to do but it might require you to travel from here to there, to the other places, so given that some husbands might be very tolerant of things like that, so the outcome will be that the woman would not be as productive as she wants to be in terms of research”.*

The views from this P2 confirm the quantitative research findings in Table 4.9 that males are more productive than female academic staff. There are several factors restricting women from being more productive in research even when they want, most of which are related to being married. However, this might be partly true but can also be challenged by other factors.

For instance, the findings did not show whether the female staff who are not married are more productive or those who do not have husbands (single mothers) and so have less restrictions from the husband. However, there are some female factors which can hinder women productivity without being married. This P2 calls them family matters, he adds that;

*“There are also family matters, women are more likely to be restricted in terms of the responsibilities they have at home. For example, a woman who has just given birth or a woman who has children to attend to, so she might not be as flexible as the research wants her to be or she might not as productive as she ought to be in terms of research because she has other responsibilities to take care of, so she might not give it as much time as is needed during the research.”*

These factors seem to be common for women, although more evidences are required to ascertain that when such factors are not present, for example in situations where the woman academic staff is single and has no children. Like what the third participant (P3) said, the issue of why women are less productive especially in research, is difficult to conclude. This participant had this to say;

*“...it is generally difficult to conclude that male staff are more productive than their female counterparts in research; but if this is to be taken as a statement of fact, then in my opinion, this could be the reasons why male staff are considered to be more productive in research than their female counterparts; 1) males are more aggressive by nature, they seem to be generally more enterprising and eager to achieve more w roles; 2) males are generally more energetic and would almost always dispense more amount of energy in achieving a particular task including research work, that is the reason why generally males seem to be more productive than the female counterparts; 3) it is also generally assumed that males are more dominating, that is they are more represented in the research world and that seems to be a reason why most of the key positions like the editors, editor general positions, etc, seem to be dominated by males, so one can tell why it is more likely that the males dominate the research world and more productive; 4) It is usually a common slogan also that you either ‘publish or perish’, so males are more generally more often than not the are the bread winners of their families, so because in most times research are done for publishing the manuscript, hoping to get promotions and the males are often more likely to apply for promotion in their workplace so as to earn a living for themselves and their families, so they seem to be more productive in this respect; 5) also males are more consistent by that I mean, they seem to be more in the research system, they persist longer in the scientific career and also in research work than their female counterparts and it is also generally believed that the women by virtue of their nature out of particular system by reason of having other particular duties to do at home, caring for their spouses, for their children, keeping the home, taking out*

*maternity leaves and so on. Above all, the male counterparts seem to be more focused and consistent in research work, I think they are always almost more consistent than their female counterparts, that is also the same reason why in some organisations women are hired less; 6) it is also generally perceived that research should be male associated, so it places females at a disadvantaged position; 7) A particularly important point is the fact that only about 28.4% of the women are actually involved in science by a particular study, so this places the females at a disadvantaged position, so one of the reasons why most females are less represented and then probably less productive in research; 8) There is also this unknown issue of cultural and psychosocial factor that has to do with gender bias, generally believed in the number claims that generally the science world is a male gender venture, so male are generally given the hand of fellowship more in gender, in the quality kind of general perception and so also in science world in research it not different, so one of the reasons why the males are more productive in research than their female counterparts.*

What comes out from the views of this P3 is another proof that several factors can explain why males dominate the research world. What is not specifically mention in all these findings is whether these factors can be contextual, that is, if in some institutions, the differences in research productivity are caused by a different set of factors and in other institutions, the differences are also caused by another set of factors. It is also not coming out clearly whether the gender differences in research productivity in different contexts are caused by similar factors. If this can be achieved, then there will be clarity on the gender productivity question.

Some other participants have views pointing to a natural direction, suggesting that it is nature to blame for the dominance of men in research productivity. This is in line with what participant four (P4) said;

*“The only explanation I have as to why male staff are more productive in research than female is, if first of all, we look at the genetic make-up of a man, he is wired to do much more than a lady in various aspects and to go a mile ahead so this does not deter him to go ahead a mile even in research and he does not have limitations that ladies have, for instance, we all know how women are their emotional shift and all that but a man is able to stick to the plans stick to the game and whatever emotional tremor or whatever emotional shift is going through, he will make sure that he completes whatever research he is assigned to.”*



This view sounded much interesting to researchers in this gender diversity field. If it is true that men are wired to do more than women, the question of why men are more productive than women, would have been answered. Whereas this looks a convincing reasoning, still other factors are provided as a reason limiting women's productivity. There is need for more scientific proof on whether the physical and biological structures of a man make him superior to a woman in productivity.

#### **4.6 Relationship Between Age Diversity and Academic Staff Productivity in Private Chartered Universities in Central Uganda**

For this second objective, the researcher tested a second null hypothesis that; there is no significant relationship between age diversity and academic staff productivity in private chartered universities in Central Uganda. To test this null hypothesis, One-way Analysis of Variance (ANOVA) was used. According to Amin (2005) for one to use One-way ANOVA, the data considerations on the two variables should be that, the independent variable is multi-categorical (more than two categories) and the dependent variable should be numerical. The three numerical indices of productivity (teaching, research and community service) and their overall productivity index were correlated with respondents' age and the results are presented in Table 4.10.

**Table 4.10: ANOVA Results for Variations in Staff Productivity by Age**

Productivity	Age groups	N	Mean	Std. Deviation	F-value	p-value	Decision
Teaching Productivity	20 - 30 years old	101	3.29	0.57	2.899	.035	Positive Insignificant
	31 - 40 years old	111	3.43	0.45			
	41 - 50 years old	117	3.47	0.35			
	51 - Years &above	21	3.34	0.50			
	Total	350	3.40	0.47			
Research Productivity	20 - 30 years old	100	2.89	0.72	.589	.623	Positive Insignificant
	31 - 40 years old	108	2.84	0.61			
	41 - 50 years old	117	2.81	0.52			
	51 - Years &above	21	2.71	0.72			
	Total	346	2.84	0.62			
Community Service Productivity	20 - 30 years old	101	2.93	0.69	1.107	.346	Positive Insignificant
	31 - 40 years old	111	2.87	0.61			
	41 - 50 years old	117	2.95	0.52			
	51 - Years &above	21	2.70	0.68			
	Total	350	2.90	0.61			
Overall productivity	20 - 30 years old	101	3.04	0.55	.800	.495	Positive Insignificant
	31 - 40 years old	111	3.05	0.44			
	41 - 50 years old	117	3.08	0.32			
	51 - Years &above	21	2.92	0.53			
	Total	350	3.05	0.45			

The findings in Table 4.10 reveal that, age diversity only has significant impact on teaching productivity of academic staff ( $F = 2.899$ ;  $p = 0.032$ ). Results further show that age diversity has no big connection with research and community service productivity, since the corresponding p-values are far bigger than the 0.05 level of significance. Based on these results, the null hypothesis is accepted that age diversity has no significant link with academic staff productivity as a whole.

During the interview the participants were asked “ How does age difference affects academic staff productivity” One participant said” *age is a variance in academic system. Young staff are more vibrant than older staff and have good interaction with the students. The professors are also in their own age group, they are experience and they are in the system to mentor young staff to improve productivity. It is a long term planning but it helps to improve the productivity of academic staff and achieve the goals of the university*”. Another participant

*added “ that academic staff productivity depends on the individual person. Although older staff are more experience that younger staff but younger can also perform better given the opportunity.”*

#### **4.7 Relationship Between Nationality Diversity and Academic Staff Productivity in Private Chartered Universities in Central Uganda**

For the third objective, the researcher tested the third null hypothesis that; there is no significant relationship between nationality diversity and academic staff productivity in private chartered universities in Central Uganda. To test this null hypothesis, One-way ANOVA was used, since the independent variable (nationality diversity) was multi-categorical (with five categories) and the dependent variable (productivity) was numerical. The researcher compared the three numerical indices of productivity (teaching, research and community service) and the overall productivity index with respect to respondents' nationality and the results are presented in Table 4.11.

**Table 4.11: ANOVA Results for Variations in Staff Productivity by Nationality**

		N	Mean	Std. Deviation	F-value	p-value	
Teaching Productivity	Ugandan	273	3.38	0.49	.119	.949	Positive Insignificant
	Kenyan	35	3.38	0.40			
	Nigerian	20	3.43	0.37			
	Rwandese & others	14	3.43	0.37			
	Total	342	3.39	0.47			
Research Productivity	Ugandan	269	2.86	0.67	.688	.560	Positive Insignificant
	Kenyan	35	2.80	0.45			
	Nigerian	20	2.69	0.45			
	Rwandese & others	14	2.73	0.32			
	Total	338	2.84	0.62			
Community Service Productivity	Ugandan	273	2.90	0.64	.152	.928	Positive Insignificant
	Kenyan	35	2.92	0.42			
	Nigerian	20	2.98	0.46			
	Rwandese & others	14	2.96	0.58			
	Total	342	2.91	0.61			
Overall productivity	Ugandan	273	3.05	0.49	.016	.997	Positive Insignificant
	Kenyan	35	3.04	0.21			
	Nigerian	20	3.04	0.23			
	Rwandese & others	14	3.04	0.25			
	Total	342	3.05	0.45			

As per the findings in Table 4.11, there are no significant variations in productivity of academic staff based on their nationality. So, one teaching, research and community service is independent of their nationality. Based on these results, the null hypothesis is accepted for all the three individually and taken together. A conclusion is taken that productivity of

academic staff in private universities in Central Uganda, is not affected by their countries of origin.

During the interview, the participants were asked “ Do you think differences in nationality can affect academic staff productivity”? *One participant said that “nationality can affect academic staff productivity either positive or negative. When people see other people’s color they feel intimidated, so when they are working they work with fear which can lead to less productivity, but if the atmosphere is good it can boost their ego or morale and give them the best in the work to improve academic staff productivity.” Another participant said, “ it depends on how the management treats their staff. If the academic staff are treated equally whether locals or expatriates then it improves academic staff productivity but the academic staff are not treated equally it creates dissatisfaction which leads to less productivity”.*

#### **4.8 The Relationship Between Workforce Diversity and Academic Staff Productivity in Private Chartered Universities in Central Uganda**

In the last objective, the researcher wanted to examine whether workforce diversity has a significant effect on academic staff productivity in private chartered universities, in Central Uganda. To achieve this objective, the researcher tested a null hypothesis that; workforce diversity has no significant effect on academic staff productivity in private chartered universities in Central Uganda. To test this null hypothesis, the researcher aggregated all the three measures of productivity (teaching, research and community service productivity) into one index. To determine the extent to which gender, age and nationality can predict the perceived productivity of academic staff, the ordinary least square regression method (OLS) was employed. To use the OLS, Amin (2005) indicates that, one should have categorical data on the independent variable(s) and the predicted variable may be numerical. In this study the variable workforce diversity (independent variable) was composed of three predictors (gender, age and nationality), all of which were categorical and the dependent variable (productivity) was numerical. Thus, an OLS regression model was built with the three variables (gender, age and nationality) as the predictors and the overall numeric index on productivity as the predicted variable. The results of this test are presented in Table 4.12.

**Table 4.12: T-test on Gender, Age and Nationality and Academic Staff Productivity**

Predictors	Categories	Coef.	Std. Err.	T	P>t	[95% Conf.	Interval]
Gender	Male	<i>Ref</i>					
	Female	-0.02	0.05	-0.41	0.680	-0.12	0.08
Age	20-30 years old	<i>Ref</i>					
	31 - 40 years old	0.01	0.06	0.2	0.845	-0.11	0.13
	41 - 50 years old	0.05	0.06	0.78	0.436	-0.07	0.17
	51yrs+	-0.20	0.11	-1.76	0.079	-0.42	0.02
Nationality	Ugandan	<i>Ref</i>					
	Kenyan	-0.03	0.08	-0.33	0.745	-0.19	0.13
	Nigerian	-0.02	0.10	-0.16	0.876	-0.22	0.19
	Rwandese & others	-0.03	0.12	-0.28	0.781	-0.28	0.21
	_cons	3.05	0.05	63.58	0.000	2.96	3.15
F(7, 334) = 0.74	Prob > F =0.6362	R-squared = 0.0153					

A look at the dummy coefficient for gender where the male staff were in the reference category, results show that, on average being a female was associated with a decrease in perceived productivity. This is indicated by the negative value of -0.02. Even though the coefficient is statistically insignificant ( $0.680 > 0.05$ ), results indicate that keeping other factors constant, female academic staff rated their productivity to be on average of 0.02 units lower than that of males. These results are indeed in conformity with the bivariate results (Table 4.9) where the t-test values showed the mean value for females ( $\bar{x}_f = 3.03$ ) was slightly lower than that of males ( $\bar{x}_m = 3.06$ ).

Considering age diversity, results in Table 4.12 indicate that a closer look at the coefficients for the various age groups, where the 20 – 30 age group was used as the reference category, the findings indicate that on average being in the age groups of 31 – 40 and 41 - 50 was associated with an increase in perceived productivity but being in the age group of 51 years and above is associated with a reduction in perceived productivity. This is so because, the regression coefficients for the age groups of 31 – 40 and 41 – 50 years are positive (0.01 and 0.05 respectively), while the coefficient for the age group of 51 years and above (-0.20) is negative. It can therefore be predicted that, keeping other factors constant, the staff in the middle age groups (30 – 50 years) are more likely to be perceived as more productive compared to those in the lower age group of 20 – 30 years, although the impact of being middle aged is not statistically significant. However, keeping other factors constant, it can be

said that an academic staff in the age group of 51 years and above is more associated with a reduction in productivity and these results are statistically significant at 0.05 level. In other words, a one unit increase in age of a staff who is in the age group of 51 years and above is likely to result into a 0.20 units reduction in his or her productivity than a one unit increase in age of a staff who is in the age group of 20 – 30 years. These results are indeed in agreement with ANOVA results (Table 4.10) where the mean values for staff in the age group of 20 – 30 years (3.04) was significantly higher than that of staff in the age group of 51 years and above (2.92).

Finally, as for nationality, we find no significant differences in the productivity levels of staff from different countries. This is because the p-values associated with the coefficients are all above 0.05. It therefore follows that nationality or one's ethnic background is not an important factor that determines productive and non-productive academic staff. As regards the R-squared value, the results imply that holding other variables constant, approximately only 1.53% of the variations in teaching productivity is explained by the three explanatory variables (gender, age and nationality). And as indicated by the p-value associated with the model F-statistic, the model is not statistically significant, suggesting that the variables included in the model have a small contribution towards variations in academic staff productivity. This implies that other factors not considered in this study could be accounting for the biggest percentage of the variations in staff productivity.

## **CHAPTER FIVE**

### **DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.0 Introduction**

In this chapter, the findings are discussed in line with literature and previous researchers' findings. The discussions in this section are based on the study objectives. Conclusions and recommendations derived from the study findings are also presented here. Finally, the chapter also shows the areas recommended for further study.

#### **5.1 Discussion of Findings**

The main objective of this study was to investigate the Relationship between workforce diversity on productivity of academic staff, in private chartered universities of Kampala Uganda. Four objectives guided this study, which included determining the Relationship of; i) of gender diversity; ii) age diversity; iii) nationality diversity; and iv) workforce diversity of academic staff productivity. This subsection shows a summary of the key findings and discussions of the same following objectives as indicated in the proceeding subsections.

##### **5.1.1 Relationship between Gender Diversity and Academic Staff Productivity in Private Chartered Universities in Central Uganda**

From this first objective, the findings indicated that gender diversity did not have a significant relationship with academic staff overall productivity ( $t = 0.6520$ ;  $p = 0.515$ ). However, gender diversity had a significant effect on research productivity ( $t = 2.0270$ ;  $p = 0.043$ ), where the male staff were found to be more productive ( $\bar{x}_m = 2.89$ ) compared to their female counterparts ( $\bar{x}_f = 2.75$ ). These results imply that, gender diversity may not seem to be a significant predictor for productivity of academic staff, when all productivity measures are aggregated. However, when the productivity index is split into its three measures (teaching productivity, research productivity and community service productivity), we find out that gender becomes a significant predictor of research productivity. Aggregating the productivity measures makes it difficult to study the predictive strength of gender diversity. The disaggregated results revealed that male academic staff are more productive in research as compared to female academic staff. Thus, gender is a more significant predictor of research related activities than teaching and community service-related activities.



These findings to some extent agree with those of Anumaka and Ssemugenyi (2013), who revealed that, there was a significant difference in research productivity of academic staff, with male staff proving to be slightly more productive than female staff. Like it was revealed in this study, Anumaka and Ssemugenyi's (2013) study was also in conformity with the fact that gender diversity is not a significant predictor of the general productivity index of academic staff. Still the two studies agree that where there are slight differences in productivity levels, male staff slightly dominate, especially on the three common measures of teaching, research and community service. What accounts for the slight differences in favour of male staff and what accounts for the no significant differences in other productivity measures has not been agreed upon by the researchers on this topic. In other words, the revelations differ and the justifications given also differ. For example, Nathan (2000, in Anumaka and Ssemugenyi, 2013) explained that the differences in productivity favour female staff, with a justification that they are more consistent and committed at work than male staff. The justification for why males is less committed are yet to be revealed. On the other hand, researchers (e. g. Ndawula, 2002, in Anumaka and Ssemugenyi, 2013) who revealed that male staff are more productive than female staff, contend that men are more vigilant and ambitious compared to women and they are more determined to achieve the goals at all costs, unlike women who give up quickly.

Several other studies presented results alluding to the fact that gender is a predictor of staff productivity (Xie & Shauman, 1998; van den Besselaar & Sandström, 2017; Hong, 2021). Like it was found out in this study, among the evidences produced to this subject of debate, most of them point to the direction that gender differences in productivity exist and have been there for a long time (Xie & Shauman, 1998). However, as time goes many of such differences have diminished. But as regards some elements of productivity, such differences still exist mainly in research productivity at somewhat significant levels (Xie & Shauman, 1998). These differences have been attributed to a number of factors and these factors have been also changing over time. For example, Xie and Shauman (1998) indicated that “most of the observed sex differences in research productivity can be attributed to sex differences in personal characteristics, structural positions, and marital status”. In this old research publication, it is indicated that among the many studies on this subject, no single study has fully accounted for the differences in research productivity between male and female academic staff. In many of the reviewed researches on gender diversity impacts on productivity, it was revealed that females publish less than males, even among the doctoral

graduates, where publishing is almost mandatory for graduation and promotion. It is possible that controlling for other causes of gender differences in research productivity may help to solve this puzzle. However, the causes of differences are multiple (e. g. research funding, collaboration opportunities, access to teaching opportunities, research training exposure and access to further studies, and so on) and researchers have not fully isolated them (Hong, 2021). So even in this study, the net contribution of gender in differences of research productivity remains a puzzle.

### **5.1.2 Relationship between Age Diversity and Academic Staff Productivity in Private Chartered Universities in Central Uganda**

Pertaining to this second objective, this study found out that age diversity has a significant effect on only teaching productivity ( $F = 2.899$ ;  $p = 0.035$ ). Younger academic staff were found to be more productive in teaching (between 31 – 50 years) than older academic staff (between 51 years and above). However, age diversity had no significant effect on the overall/aggregated productivity index ( $F = 0.800$ ;  $p = 0.495$ ). The results suggest that, age diversity does not significantly affect research and community service productivity of academic staff, but it does so for teaching productivity. The findings also showed that in general, academic staff in their middle age (31 – 50 years) are more productive compared to those below 30 years and those above 50 years. This finding does not contradict (is consistent) with logic because, staff in the 31 – 50 years are relatively young but not so young. They have acquired an adequate level of experience and have not grown so old. So, they have less fatigue and are healthier. They are in the middle of their time, which is the best age which is also more productive in almost all areas of productivity. On the other hand, people above 50 years have grown, are tired, less healthy and so are at a declining age of their career. So, their productivity is declining and are thus likely to be less productive compared to those below 50 years. That is why even employers do not prefer to employ people above 50years. Also, young people below 30 years, though they are more energetic, they have less experience, are still learning, have less focus and so on. So, it is very possible for them to be less productive even when they put in more energy.

Several researchers (e. g. Abramo, D'Angelo & Costa, 2018; Odhiambo, Gachoka & Rambo, 2018; Abramo, D'Angelo & Murgia, 2016) have produced similar results, leading to conclusion that age has a significant effect on staff productivity, especially on some productivity variables like research. There seems to be more research on how age affects

research productivity than on other productivity variables such as teaching and community service. The differences in research coverage are not yet explained. Similar to the findings of this study are those from Viviania, Bravob, Lavalliere, Arezesd, Martineze, Dianatf, Bragancag and Castelluccih (2021), who revealed that younger staff perform better than older ones. They however reported that there are performance aspects where older staff perform better than the young ones. They for example reported low absenteeism among older staff than young staff. But in terms of research productivity, the young staff were better.

A critical analysis of the different findings from this study and the previous ones reveals several areas of focus; One is that the productivity of beginning academic staff especially on research, is significantly lower than that for staff in middle age of 31 – 50 years; second, middle aged staff productivity is significantly higher than the older ones of above 50 years; third, differences due to age are significant mainly in research and disappear when it comes to teaching and community service; four, in most of the previous findings, age has a negative coefficient (Abramo *et al*, 2018) implying that young staff exceed older ones in general productivity and in some specific areas of productivity, or that young or middle aged staff are more productive than those in the late adulthood age bracket (above 50 years). All these needs researched explanations, which this study did not provide and also not yet present in previous research reports.

### **5.1.3 Relationship between Nationality Diversity and Academic Staff Productivity in Private Chartered Universities in Central Uganda**

The findings from the third objective indicated that, ethnic diversity has no significant effect on academic staff overall productivity ( $F = 0.016$ ;  $p = 0.997$ ). All the three productivity measures taken individually were not affected by differences in nationality of academic staff. The results suggest that, nationality is not a significant predictor of academic staff productivity. So, the productivity of lecturers (in teaching, research and community service) does not depend on their nationalities or the country where they came from. Rather their personal abilities, some of which are natural and others are acquired abilities (Sayers, 2012).

To some degree the findings of this study agree with common sense and logical expectations that the productivity of an academic staff is independent of their national identities. However, there are some factors caused by differences in origin, which according to White (2019) can cause conflicts among staff and hence affect in one way or another their productivity. For

example, White (2019) argues that one of such factors is lack of acceptance in a foreign community, may affect the productivity of an academic staff who is on foreign land. Where there is lack of acceptance, there is poor relationship and ineffective teams. These according to Otike and Mwalekwa (2005) result into negative dynamics like ethnocentrism, stereotyping, cultural clashes and feelings of superiority/inferiority among some staff against others. These views try to suggest that nationality diversity may negatively affect those academic staff in a foreign university. However, the differences which were observed from this study do not provide enough evidences to such arguments. However, according to Otike and Mwalekwa (2005), management may not ignore such conflicts because they may negatively affect institutional productivity.

The findings of this study on one side disagree with those of Gupta (2013), who indicated that the effect of nationality diversity on productivity depends on the level or extent of diversity. Gupta implied that low and moderate levels nationality diversity have no effect on staff productivity, but where majority of the staff members are nationality diverse, then nationality diversity will impact productivity positively. If this argument is to be true, then the findings of this study are justified because close to 76% of the academic staff in the sampled universities were found to be locals (nationals), a finding which agrees with Gupta's point of view. However further empirical verifications may still be needed to arrive a more reliable conclusion.

The findings of this study do not also agree with those of Watzon, Johnson and Zgourides (2002) who talked of the increasing levels of nationality diversity in today's academic institutions. This study found no strong evidence of such increasing levels, as the number of foreign academic staff was found to be generally low in the sampled chartered private universities. The findings of Watzon *et al* (2002) also showed that high levels of nationality diversity led to increased productivity of teams and this comes as a result of embracing various nationality perceptions in finding solutions to problems. This diversity enhances the ability of team members and their output increases, through learning the different ways of dealing with task completion issues. This is however on condition that the staff appreciate and they learn how to make use of their dissimilarities for their advantage other than conflicting about them.

Another conflicting finding is presented by Harrison and Klein (2016) who revealed that institutional productivity may be significantly negatively affected by diversities of nationality nature. In agreement with these researchers, Milliken and Martins (2018) explained that job satisfaction and commitment levels of academic staff in the minority groups may be significantly lowered, due to increased problems of identity and feelings discrimination. This argument is also alluded to by Timmermans, Ostergaard and Kristinsson (2018) who showed that, when the numbers of these minority groups grow, most of the problems they experience fade away. Timmermans et al. (2018)'s findings suggested nationality diversity is a positive correlate of academic staff creativity and innovativeness, all of which have a positive significant effect on staff productivity, through expanding their point of view. This argument suggests that institutions with high levels of nationality diversity, enjoy high levels of growth arising from high levels of creativity and innovativeness. The evidences from this study did not reach this kind of analysis, pointing to the need for further reach.

#### **5.1.4 Relationship between Workforce Diversity and Academic Staff Productivity in Private Chartered Universities in Central Uganda**

This study revealed that, workforce diversity has no significant effect on overall academic staff productivity ( $F = 0.740$ ;  $p = 0.6362$ ). Keeping other factors constant, all the three explanatory variables (gender, age and nationality) taken together, contribute only 1.53% of the total variations in academic staff productivity. These results imply that the three explanatory variables (gender, age and nationality) included in this study, have a very small contribution in explaining variations in academic staff productivity. Thus, other factors outside this study might be better in explaining these variations in academic staff productivity.

Given the findings for the previous three objectives, the impact of workforce diversity on academic staff productivity would be better analysed by looking at the individual explanatory variables than their aggregate (diversity). Due to the small contribution of each of these variables and the varied nature of their impact, aggregating them may not yield good conclusions. Also, due to the varied nature of productivity measures, and the way it is affected by the different diversity factors it is better analysing them individually. This is based on the fact that, as indicated in Table 4.12, the direction of effect of these variables is not the same. So, aggregating them may be misleading. For example, being a female was associated with a decrease in the productivity index as compared to being a male. But because the productivity is also aggregated, this finding may not stand if the productivity

measures are assessed individually. In another analysis within the same result, being in the age groups of 31 – 40 and 41 - 50 was associated with an increase in productivity but being in the group of 51 years and above was associated with a reduction in perceived productivity. This alone may also vary if we disaggregate the productivity index into its individual measures. For example, a higher age of 51 and above, may give an advantage in research productivity or in community service but may be a disadvantage in teaching.

These findings are somewhat surprising because, a diverse workforce gives heterogeneity to teams, which is expected to play positively towards productivity than homogeneity. This point of view is in line with Asmita's (2015) view about the current requirements for organisations to diversify their workforce. This legal requirement, must have originated from well researched evidences before it is instituted into policy requirement. But Asmita (2015) provided a contradicting argument showing that managing a diversified workforce is a big challenge. But if this is true, it would suggest a negative significant impact of workforce diversity on productivity. This was not the case with the findings of this study.

The findings to a big extent provide a diverse implication to other findings and arguments. For example, some researchers on workforce diversity like Goyal (2016) indicate that organisations need a highly diversified workforce for them to survive in today's cut-throat competitive work environments. The researcher argues that hiring an effective efficient workforce requires proper recruitment procedures than focusing on diversity. Recruitment on merit may help organisations get a more productive workforce, in today's competitive environments than simply employing a diversified group. I therefore believe that, given the current study's findings, while employing universities need to look for qualified and competitive workers irrespective of their gender, age and nationality, among others. So, looking at this point of view, the findings of this study are not a surprise to the researcher.

Many of those who support the view that workforce diversity is a positive significant determinant of productivity (Sharma and Sharma, 2014; SharbariSaha, Dewpha Mukherjee Patra, 2008), advance mainly the policy requirement argument. This to me is not real and is just a forced argument. Otherwise, the capacity of an academic staff to perform depends more on their personal abilities than naturally determined factors like gender or country of origin.

A number of findings support the findings of this study, indicating diversity of staff has a little bearing with their productivity. For example, O'Flynn *et al.* (2016) revealed that the

group to which a staff belongs, has little influence on their productivity. They instead presented evidences that experience of person is more important than them being male or female or originating from country A or Z. So, a female staff who is more experienced will perform better than a male staff who is less experienced; but not because of being a female but due more experience. Secondary productivity is not static, it may improve with time or it may reduce but variables like gender are static, so their ability to influence the changing productivity is limited.

Several other studies provided findings which agree with those of this study. For example, Ahmad and Fazal (2019) had findings which agreed with negative but insignificant relationship between gender and age with academic staff productivity. Although this study showed a positive relationship between age groups of 31 – 50 years and productivity, there was a negative link between the age of 51 years and above and productivity. Their study also agreed with the argument that aggregating diversity may not provide a good analysis, as the revealed that some other diversity factors like experience, have a positive significant effect on academic staff productivity. Another study by Makudza, Muchongwe and Dangaiso (2020) revealed negative insignificant correlations between age and productivity, but their positive significant results on gender relationship with productivity deviate from the current study's findings. However, their study was among government employees in the Government of Zimbabwe, where the services provided could be different from the services academic staff in private universities offer.

## **5.2 Conclusions**

From the findings and discussions of this study, the researcher derives the following conclusions. The conclusions are organized according to the study objectives.

### **5.2.1 Relationship between Gender Diversity and Academic Staff Productivity in Private Chartered Universities in Central Uganda**

Gender diversity does not significantly affect academic staff productivity, when productivity is aggregated. But when it (productivity) is analysed in a disaggregated format, gender diversity significantly affects research productivity, with the male staff being more productive as compared to females. Gender as a natural characteristic does not determine more productive and the less productive academic staff in private universities. The differences seen in research productivity between male and female academic staff are

environmentally caused than being natural. Because women are more engaged in domestic related activities which disengages them from participating in more research activities, which is not the case with men, the later produce more research outputs compared to the former. If women are given chance to participate in university research activities, with less engagement in child birth and rearing, they may be as productive as men in research. But because women do not expect to stop child production and rearing, these differences in research productivity are likely to continue.

### **5.2.2 Relationship between Age Diversity and Academic Staff Productivity in Private Chartered Universities in Central Uganda**

In general, age diversity is a positive significant determinant of academic staff productivity. Age is a more powerful determinant of teaching productivity as compared to other productivity measures. The influence of age on academic staff productivity is bi-directional. That is, academic staff in their middle adulthood age of 31 – 50 years are likely to be more productive (especially in teaching) than academic staff in their early (starting) years of teaching (30 years and below). On average the productivity of academic staff is likely to start reducing after 50 years. So, at 51 years and above, age becomes a significant but negative determinant of academic staff productivity. Thus, the experience which is built between 31 – 50 years begins to reduce after that age level. What exactly happens after this age level was not determined in this study. The researcher assumes that after the 50 years, other factors like reduced energy/fatigue, health problems, being too much busy with a lot of commitments elsewhere, reduce the productivity of staff in their late age. These propositions require further investigations to be confirmed.

### **5.2.3 Relationship between Nationality Diversity and Academic Staff Productivity in Private Chartered Universities in Central Uganda**

Generally, nationality diversity has no bearing with academic staff productivity, whether taken individually or as a whole. So, one's productivity does not depend on their tribe or nationality nor race. Some beliefs in favour of a significant relationship between nationality diversity and productivity have no statistical proof in this study and in most of the previous studies the researcher reviewed. So, the productivity of lecturers (in teaching, research and community service) depends more on their personal abilities and acquired experiences. Thus, there is no superiority among the races, when it comes to productivity. All nationalities have



the same potential perform better. A white staff is not superior to a black and a black staff is not superior to a white one.

#### **5.2.4 Relationship between Workforce Diversity and Academic Staff Productivity in Private Chartered Universities in Central Uganda**

When analysis is done with aggregated variables, it was concluded that workforce diversity is not a significant determinant of academic staff productivity. The three common diversity variables in existing studies (gender, age and nationality) have a very small contribution in explaining variations in academic staff productivity. Even this small contribution seen is mainly attributed to age. It is important to analyse elements of diversity individually than considering them as a whole. Results of aggregated diversity do not make much sense, because diversity elements are completely different and the way the impact productivity differ. Also, diversity studies with significant results on productivity examined other significant elements beyond the three personal characteristics of gender, age and nationality. So, the diversity concept is widely conceptualised and the analysis of its impacts on productivity needs to be clustered, for better conclusions. This study examined only the three common elements of diversity.

### **5.3 Recommendations**

From the findings and conclusions of this study, the following recommendations, are made in line with the study objectives;

#### **5.3.1 Relationship between Gender Diversity and Academic Staff Productivity in Private Chartered Universities in Central Uganda**

This study found out that, while gender diversity does not significantly affect academic staff aggregated productivity, it has a significant effect on research productivity, where the male staff are more productive than the females. Based on this, the researcher recommends that, since the differences seen in research productivity can be attributed to community setting and no necessarily natural, the management of organizations and policy makers should draft research policies with particular affirmative action for female staff, to boost their research productivity. Such research policies may include but not limited to, ensuring that every research team or project involves a female staff. Rewards for research out puts may be put up to boost research productivity but with extra incentives for female staff.

Another recommendation in this line is that, since one of the reasons why women lag behind men in research is because they are more engaged in domestic activities and child birth, the retirement age for women can be uplifted, so that they can do more research in their post child birth periods and compensate their lost time.

Also, a policy that every academic staff must publish at least one research paper a year or participate in a research related project in a year, can help to boost research productivity for both male and female staff equally. Such research related projects may be community outreach programs, that should call for reports that can be uploaded on institutional websites, and so on.

### **5.3.2 Relationship between Age Diversity and Academic Staff Productivity in Private Chartered Universities in Central Uganda**

In line with the findings of this study, age diversity a positive significant effect on productivity of academic staff. More specifically, academic staff in middle adulthood age of 31 – 50 years are more productive (especially in teaching) than others in early years of 30 years or below and those above 50 years. And also, important to note is that, productivity of academic staff reduces seriously above 50 years. Based on these findings, the researcher recommends that;

Managers of institutions, need to always stratify their workforce according to age and give tasks and responsibilities accordingly. Managers should ensure that heavy tasks and those which require much pressure should be given to academic staff in middle age of 31 – 50 years. Managers should also ensure that academic staff in early age of 30 years or below should be assigned under those who are more experienced. For example, those above 50 years have reduced energy of doing work, so they should be assigned to mentor the young ones who are 30 years or below. Academic staff in middle age (31 – 50 years) should be facilitated and motivated to do most of the university tasks. If this is done, the productivity of academic staff in universities is likely to increase significantly.

### **5.3.3 Relationship between Nationality and Academic Staff Productivity in Private Chartered Universities in Central Uganda**

This study showed that nationality diversity is not an important factor determining academic staff productivity as a whole. Even though several researchers have indicated that foreign

staff are more productive compared to locals, the evidences provided are not so convincing. Therefore, it is not advisable for management to base their recruitment at nationality, tribe or race.

Managers need to consider the fact that local employees, if well motivated can be as productive as foreign staff. Universities may be more productive if they employ local staff than when they employ foreign staff, since their productivity can be equally the same.

Managers who want staff who are more productive, should consider other factors like age and other motivational and staff capacity development programs. It implies that there is no locknet science in getting more productive academic staff, no need of crossing borders looking for more productive staff, what can be done is to develop their capacities and motivate them more. These arrangements, if well done, can boost productivity of all academic staff irrespective of their nationalities.

#### **5.3.4 Relationship between Workforce Diversity and Academic Staff Productivity in Private Chartered Universities in Central Uganda**

It was indicated in this study that workforce diversity in terms of personality differences in gender and ethnicity, does not significantly affect productivity among academic staff, but age does so. The only factor which is important to be considered when grouping staff is age and experience.

Since differences in academic staff productivity can be more attributed to their differences in age, it is important that managers of these institutions consider this factor in their strategic management decisions to improve institutional productivity. For example, the management should ensure that the biggest percentage of their workforce is composed of those in middle age of 31 – 50 years, with few starters (30 years or below) and elders (above 50 years).

Managers of universities should ensure that when grouping or teaming up staff for tasks like teaching, research and community engagements; it is better to mix up the age groups. The middle aged are more productive, more energetic and readier to move things, they should be paired up with those in late years of above 50 and those below 30 years to share their experiences for the young ones who have the energy to do.

#### **5.4 Areas for further Research**

Further studies could be done on the effect of other diversity factors such experience on productivity of academic staff. While this study examined the effect of age diversity on productivity of academic staff, the diversity in terms of experience was not directly assessed. So, additional studies examining how the years served in an institution and the years served in university job can affect their productivity levels could be carried out.

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APPENDIX I: TRANSMITTAL LETTER



Ggaba Road, Kansanga \* PO BOX 20000 Kampala, Uganda  
Tel: 0709654233/0774393791 Fax: +256 (0) 41 - 501974  
E-mail: dhdrinquiries@kiu.ac.ug \* Website: http://www.kiu.ac.ug

Directorate of Higher Degrees and Research  
Office of the Director

Our Ref. 2019-08-09970

Tuesday 12<sup>th</sup> April, 2022

Dear Sir/Madam,

RE: INTRODUCTION LETTER FOR TORIOLA FUNKE CHRISTIANA  
REG. NO. 2019-08-09970

The above mentioned student is a student of Kampala International University pursuing a PhD in Educational Management.

The student is currently conducting a research study titled, *“Workforce Diversity and Academic Staff Productivity in Private Chattered Universities in Central Uganda”*.

Your organization has been identified as a valuable source of information pertaining to the research subject of interest. The purpose of this letter therefore is to request you to kindly cooperate and avail the student with the pertinent information needed. It is our ardent belief that the findings from this research will benefit private universities in Uganda.

Any information shared with the researcher will be used for academic purposes only and shall be kept with utmost confidentiality.

I appreciate any assistance rendered to the researcher.

Yours Sincerely,

Ibrahim Abdullahi, PhD  
Director



C.c. DVC Academic Affairs  
Principal-CEODL

## **APPENDIX II: LETTER TO THE RESPONDENTS**

**Dear Sir/Madam;**

**Greetings!**

I am Toriola Funke Christiana, a PhD student of Kampala International University. I am currently carrying out a study about “Workforce Diversity and Academic Staff Productivity in Private Chartered Universities in Central Uganda.”. I humbly request you to be one of the participants in this study and your cooperation will be of great importance to this study. Your answers will be kept with utmost confidentiality.

Yours faithfully,

Toriola Christiana Funke

Reg. No. 2019-08-09970

### **APPENDIX III: INFORMED CONSENT**

In signing this document, I am giving my consent to be part of the research study of Toriola Christiana Funke entitled “Workforce Diversity and Academic Staff Productivity in Private Chartered Universities in Central Uganda”.

I shall be assured of privacy, anonymity and confidentiality and that I will be given the option to refuse participation and right to withdraw my participation anytime.

I have been informed that the research is voluntary and that the results will be given to me if I ask for it.

\_\_\_\_\_  
Name and Signature

Date:\_\_\_\_\_

## APPENDIX IV: RESEARCH INSTRUMENTS

### SECTION A: Background Information

**Directions:** Please help us to clarify your response by supplying the following facts about yourself.

#### 1. Highest Academic Qualifications

Bachelor's degree \_\_\_\_\_

Master's degree \_\_\_\_\_

Doctoral degree \_\_\_\_\_

Others specify \_\_\_\_\_

#### 2. Religion

Christian \_\_\_\_\_

Non-Christian \_\_\_\_\_

#### 3. Marital Status

Single \_\_\_\_\_

Married \_\_\_\_\_

Widow/Widower \_\_\_\_\_

### SECTION B ITEMS ON WORKFORCE DIVERSITY

INSTRUCTION: The items below are constructs on workforce diversity. Tick the item/s that represents.

#### 1. Age

20 - 30 years old \_\_\_\_\_

31 - 40 years old \_\_\_\_\_

41 - 50 years old \_\_\_\_\_

51 - Years old and above \_\_\_\_\_

#### 2. Gender

Male: \_\_\_\_\_

Female: \_\_\_\_\_

### 3. Nationality

Ugandan \_\_\_\_\_

Kenyan \_\_\_\_\_

Nigerian \_\_\_\_\_

Rwandese \_\_\_\_\_

Chinese \_\_\_\_\_

If others (kindly specify) \_\_\_\_\_

### Section C: Questionnaires on Academic Staff Productivity

**Instructions:** These sections contain items on academic staff productivity (teaching productivity, research productivity and community service productivity). Please rate the following statement on a scale of:

**4= Strongly Agree (SA), 3= Agree (A), 2= Disagree (DA) and 1= Strongly Disagree (SDA)**

#### A, Teaching Productivity

No	Items	SA	A	DA	SDA
1	I use simple terms/language to explain the lesson				
2	I try to motivate the student during lectures to arouse their interest				
3	I am considerate with my students to some extent				
4	I assign some course related resources to my students to read				
5	I always have extra time to attend to my students				
6	I always start my class on time and end it on time				
7	I do extra teaching if it is necessary				
8	I finish my syllabus on time				
9	I give my students assigned topics to read				
10,	I assess my students work				

### B. Research Productivity

No	Items	SA	A	DA	SDA
1	I help supervise the students research to completion				
2	I have time to supervise my students in research				
3	I have published articles in journals locally and internationally				
4	I have written a book / book chapter				
5	I usually visit students on industrial assignment/ school practice				
6	I publish at least one article in a year				
7.	I am a member of research group in our college/university				
8	I always encourage students to do research				
9	I have presented some paper in conference (s)				
10	I always attend seminars/trainings to present my research work				

### C. Community Service Productivity

No	Items	SA	A	DA	SDA
1	I usually get involved in community service				
3	I participate in community activities like environmental issues				
4	I participate in civic duties in community				
5	I always participate service and programs				
6	I participate in trainings and seminars for community service				
7	I sometimes participate in training youth in community activities				
8	I sometimes participate in organizing programs for community service				
9	I participate in distribution of food and other items to less privilege in community				
10	I participate in medical mission/camp in the community				

## **APPENDIX V: INTERVIEW GUIDE**

1. How does age difference affect academic staff productivity?
2. Do you think one's gender can affect academic staff productivity?
3. Do you think differences in nationality can affect academic staff productivity?
4. According to you, how does diversity affect academic staff productivity?
5. What is your opinion about diversity in the workplace, its advantages and disadvantages?
6. What can you say about academic staff productivity in your university?



## APPENDIX VI: LETTER FROM ETHICS COMMITTEE

**Title: WORKFORCE DIVERSITY AND ACADEMIC STAFF PRODUCTIVITY IN PRIVATE CHARTERED UNIVERSITIES IN CENTRAL UGANDA**

Principal Investigator (PI): TORIOLA FUNKE CHRISTIANA. (0773156449/0758553850)

Greetings, my name is Toriola Funke Christiana from Kampala International University. I am here to conduct a study entitled “Workforce Diversity and Academic Staff Productivity in Private Chartered Universities in Central Uganda”.

I would like to request you to participate in the study by filling the survey questionnaire of my study.

All information you will provide will strictly be used for the study purpose and therefore, shall not be shared with any other person who is not part of the study. In addition, your name shall not be required, the consent form that you will sign will not be attached to the information you will provide to avoid linkage of your personal details to the information you will provide.

### **Possible Risks or Discomforts involved in the Research**

Talking about the services at the facility may cause some discomfort, you may choose not to answer any question that makes you feel uncomfortable and you may choose to end the interview at any time. Additionally, since there are relatively few health workers providing this service, it's possible that you may be associated with the findings of this study.

### **Possible Benefits to You for Taking Part in the Study**

There are no direct benefits to your participation in this study although it will give you an opportunity to express your views about my study. By joining this study, you are helping to provide vital information about my study. This information will be used to guide the development of productivity of academic staff in private chartered universities.

### **Participating in this Study**

Your participation in this study is voluntary; you may stop participating at any time. Your decision not to take part in this study or to stop your participation will not affect you any way. You may also decline to answer any questions that you do not want to and still continue with the interview.



**Research Ethics related concerns**

This research was reviewed and approved by Uganda Christian University REC and cleared by Uganda National Council for Science and Technology (UNCST), for your rights and research ethics concerns; please contact Prof. Peter Waiswa, Chairperson UCUREC on [pwaiswa@musph.ac.ug](mailto:pwaiswa@musph.ac.ug) or 0772405357 or UCUREC Secretariat Mr. Ahimbisibwe Osborn 0775737627 or [ahimbisibwe@ucu.ac.ug](mailto:ahimbisibwe@ucu.ac.ug) . or contact UNCST.

Do I have your permission to continue? (*Tick one.*)

1 = Yes      2 = No (*End the interview*)

Study Participant (Name & signature or thumbprint)

Date

\_\_\_\_\_

\_\_\_\_\_

**For the Research Personnel:** I certify that I have reviewed the contents of this form with the subject signing above. I have explained the known benefits and risks' of the research. It is my opinion that the subject understood the explanation

Research personnel's Name.....signature.....date.....



## APPENDIX VII: REQUEST LETTER FROM NKUMBA UNIVERSITY

Kampala International University

Kampala, Uganda

April 21, 2022

The Academic Registrar

Nkumba University

Kampala, Uganda

Dear Sir/Madam;

Greetings!

I am Toriola Funke Christiana , Reg. No. 2019-08-09970 , a PHD student of Kampala International University is carrying out a study entitled " Workforce Diversity and Academic Staff Productivity in Private Chartered University in Central, Uganda" .

In this regard, I would like to ask permission to allow me conduct my study in your institution. Any information shared will be used for academic purposes only and shall be handled with utmost confidentiality.

Thank you very much.

Yours Sincerely,



Toriola Christiana Funke.



*Request to collect data  
from Nkumba University  
granted.  
Kiy:FC 25/04/2022*

## APPENDIX VIII: REQUEST LETTER FROM ISBAT UNIVERSITY

Kampala International University

Kampala; Uganda

April 28, 2022

The Academic Registrar

ISBAT University

Kampala, Uganda

Dear Sir/Madam

Greetings

I am Toriola Funke Christiana, Reg. No. 2019-08-09970, a PHD Student of Kampala International University, carrying out a study entitled "Workforce Diversity and Academic Staff Productivity in Private Chartered Universities in Central Uganda"

In this regard, I would like to ask permission to allow me conduct my study in your institution. Any information shared will be used for academic purposes only and shall be handled with utmost confidentiality

Thank you very much.

Yours Sincerely,



Toriola Christiana Funke

0773156449



## APPENDIX IX: REQUEST LETTER FROM NDEJJE UNIVERSITY



**Directorate of Research and Innovations**  
P. O. Box 7088, Kampala – UGANDA  
Tel: +256 414 663 680  
Email: @ndejeuniversity.ac.ug  
Website: www.ndejeuniversity.ac.ug

Date : 11<sup>th</sup> May, 2022

To : Ms. Toriola Christiana Funke  
Kampala International University  
P.O Box 20000, Kampala

Dear Ms. Toriola Christiana Funke


**RE : PERMISSION TO CONDUCT RESEARCH AT NDEJJE UNIVERSITY**

Reference is made to your letter dated 12<sup>th</sup> April 2022, requesting for permission to collect data for your study "**Workforce Diversity and Academic Staff Productivity in Private Chattered Universities in Central Uganda** " at Ndejje University.

This is to inform you that permission is hereby granted to you as per your request. However, you will be expected to follow the Uganda National Council for Science and Technology research COVID-19 guidelines and strictly provide proof of a Research Ethical clearance from National Council of Science and Technology or any other registered REC center.

By copy of this letter, the University Security and Academic staff are informed and requested to accord you the necessary support.

Yours Sincerely,



Dr. Primrose Nakazibwe (PhD)

Director Research and Innovations

Cc : Head Security, Ndejje University

## APPENDIX X: REQUEST LETTER FROM KAMPALA UNIVERSITY

Kampala International University  
Kampala Uganda  
6<sup>th</sup> June , 2022

The Academic  
Registrar Kampala  
University Kampala,  
Uganda

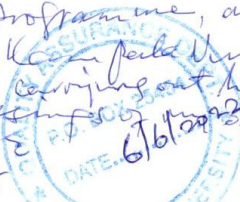
Through:

The Director of  
Quality Assurance  
KU  
Dear Sir/Madam

*I commend Christina for her determination to  
Running a Doctoral programme, and also her  
decision to include Kampala University among  
those she will be carrying out her research.  
She has the blessing of my office.*

*[Signature]*  
DQA

*6/6/2022*



Greetings

I am Toriola Christiana, Reg. No. 2019-08-09970, a PHD student of Kampala International University is carrying out a study entitled "Workforce Diversity and Academic Staff Productivity in Private Chartered Universities in Central Region, Uganda"

In this regard, I would like to ask permission to allow me conduct my study in your institution, any information shared will be used for academic purposes only and shall be handled with utmost confidentiality

Thank you very much

Yours Sincerely



Toriola Christiana Funke 0773156449

## APPENDIX XI: REQUEST LETTER FROM UGANDA CHRISTIAN UNIVERSITY



**UGANDA CHRISTIAN  
UNIVERSITY**  
A Centre of Excellence in the Heart of Africa

13/06/2022

To: Christiana Toriola

Kampala International University  
0773156449

**Type:** Initial Review

**Re: UCUREC-2022-317: WORKFORCE DIVERSITY AND ACADEMIC STAFF PRODUCTIVITY IN PRIVATE CHARTERED UNIVERSITIES IN CENTRAL UGANDA , 1, 2022-05-11**

I am pleased to inform you that the Uganda Christian University REC, through expedited review held on **10/06/2022** approved the above referenced study.

Approval of the research is for the period of **13/06/2022** to **13/06/2023**.

As Principal Investigator of the research, you are responsible for fulfilling the following requirements of approval:

1. All co-investigators must be kept informed of the status of the research.
2. Changes, amendments, and addenda to the protocol or the consent form must be submitted to the REC for re-review and approval **prior** to the activation of the changes.
3. Reports of unanticipated problems involving risks to participants or any new information which could change the risk benefit: ratio must be submitted to the REC.
4. Only approved consent forms are to be used in the enrollment of participants. All consent forms signed by participants and/or witnesses should be retained on file. The REC may conduct audits of all study records, and consent documentation may be part of such audits.
5. Continuing review application must be submitted to the REC **eight weeks** prior to the expiration date of **13/06/2023** in order to continue the study beyond the approved period. Failure to submit a continuing review application in a timely fashion may result in suspension or termination of the study.
6. The REC application number assigned to the research should be cited in any correspondence with the REC of record.
7. You are required to register the research protocol with the Uganda National Council for Science and Technology (UNCST) for final clearance to undertake the study in Uganda.

The following is the list of all documents approved in this application by Uganda Christian University REC:

No.	Document Title	Language	Version Number	Version Date
1	Informed Consent forms	English	1	2022-05-11
2	Data collection tools	English	1	2022-05-11
3	Protocol	English	1	2022-05-11

Yours Sincerely

Peter Waiswa  
For: Uganda Christian University REC

**APPENDIX XII: MAP OF CENTRAL UGANDA**





**APPENDIX XIII: KREJCIE AND MORGAN**

<b>Populasi (N)</b>	<b>Sampel (n)</b>	<b>Populasi (N)</b>	<b>Sampel (n)</b>	<b>Populasi (N)</b>	<b>Sampel (n)</b>
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

#### **APPENDIX XIV: LIST OF PRIVATE CHARTERED UNIVERSITIES**

According to the National Council for Higher Education (2017/2018-2019/2020), Uganda covers 10 Higher Educational Private Charter Institutions as listed below:

Uganda Martyrs University	Mpigi	Charter to University	Private
Uganda Christian University	Mukono	Charter to University	Private
Nkumba University	Wakiso	Charter to University	Private
Kampala International University	Kampala	Charter to University	Private
Ndejje University	Luwero	Charter to University	Private
Bugema University	Luwero	Charter to University	Private
Bishop Stuart University	Mbarara	Charter to University	Private
Mountains of the Moon University	Kabarole	Charter to University	Private
Kampala University	Kampala	Charter to University	Private
ISBAT University	Kampala	Charter to University	Private