
**The Mediating Role of Work Engagement in the Relationship Between
Organizational Culture and Employee Retention: The Nigerian Public
Universities Perspective**

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Abstract

The study investigates the mediating role of work engagement in the relationship between organizational culture and employee's retention in the context of Nigerian Public Universities. Drawing upon the Social Exchange Theory (SET) and Job Demands-Resources Theory (JD-R) this empirical study developed a conceptual framework and hypotheses were tested using quantitative methodology. The study focuses on academic staff in five Public Universities in Southwest, Nigeria. The unit of analysis is at the level of individual academic staff members and 389 staff were sampled. There are six dimensions of organizational culture (IVs) measured based on Hofstede's cultural dimensions model. The dimensions are Power distance, Uncertainty avoidance, Individualism/collectivism, Masculinity/femininity, Short/long orientation and Indulgence/restraints. Work engagement (MV) is measured using three constructs namely: Vigor, Absorption and Dedication. The dependent variable - Employee retention (DV) is a uni-dimensional variable. This study utilizes confirmatory factor analysis (CFA) and structural equation modeling (SEM) (PLS-SEM) The study found that work engagement partially mediated the relationship between two of Hofstede's cultural dimensions. Specifically, the results show that work engagement mediates the relationships between the Hofstede's cultural dimension of uncertainty avoidance and employee retention as well as the Hofstede's cultural dimension of Indulgence/Restraint and employee retention. Hofstede's cultural dimension of Individualism/Collectivism, Masculinity/Femininity and Long/Short term orientation were found to not statistically influence employee retention in the Nigerian Public universities. The findings of the study have implications for governing bodies of the Nigerian universities. The findings of the study also help explain employee work engagement in an organizational context and are important for both theory and practice.

Keywords: Organizational culture, employee retention, work engagement, Vigor, Absorption and Dedication, Power distance, Uncertainty avoidance, Individualism/collectivism, Masculinity/femininity, Short/long orientation and Indulgence/restraints

1. Introduction

1.1 Research Rationale

Research on organizational culture explores the shared values, norms, beliefs, and behaviors shaping an organization, aiming to understand its impact on employee commitment, productivity, decision-making, and overall performance, often using frameworks like Hofstede's dimensions or Schein's three-layer model to analyze its tangible (policies, hierarchy) and intangible (stories, rituals) aspects and its link to strategic success. The two significant but opposing viewpoints on organizational culture are the collective meaning perspective and the toolkit perspective (Grover et al., 2022). Organizational culture is frequently viewed from the perspective of collective meaning and is frequently characterized as a set of shared values. According to Grover et al. (2022), the collective meaning perspective of organizational culture acts as a governing factor on the actions of organizational members. Although from the toolkit perspective, researchers see an individual's organizational culture as their toolbox and credit argentic flexibility to them. As a result, culture is viewed as a collection of cultural resources that people can utilize to support and develop their own action plans. Cultural resources are "parts" of culture, such as institutional narratives, defenses, moralities, and ideals (not necessarily shared). According to the toolkit perspective, individuals have the agency to use cultural resources freely and can use different combinations of available cultural resources to achieve their "pragmatic ends" (Grover et al., 2022). Due to the quick shift from industrial processes to technology and new ways of living and working, the workplace has undergone continuous and complicated transformations (Urbini et al., 2020). This means that both academics and professionals are required to work to understand the variables that have an impact on the strategic objectives of the organization as well as the performance and well-being of the employees in order to ensure organizational sustainability and growth in the face of aggressive and demanding competition (Urbini et al., 2020). Since its widespread adoption a little more than three decades ago, the idea of work engagement has assisted organizations in referring to and monitoring the extent to which employees feel motivated and inspired by their work and work environment (Pellikaan, 2021). Employees must feel a deep connection to their company in order for their workforce to retain a high level of engagement (Pellikaan, 2021). The vital significance of work engagement has recently received widespread empirical recognition on a global scale. Companies can promote certain individual behaviors like work engagement (WE) and organizational culture (OC) to deal with a complex socioeconomic environment, such as the current global situation, as long as the latter is practiced in a balanced way taking into account its positive and negative effects for the organizational, professional, and personal development of its employee (Zúñiga et al., 2022). The empirical evidence leaves no doubt about the critical role of work engagement in generating results produced by employees, teams, and organizations (Bakker & Albrecht 2018). According to Zúñiga et al. (2022) job engagement is characterized by creating in employees a cognitive, bodily, and emotional connection that keeps them connected to their work even when they are

outside of the working environment or their regular working hours. According to theories, work engagement is a relatively steady job-related wellness condition that is mostly influenced by elements linked to the employee's employment as well as the resources that are available to them (Bakker & Demerouti, 2017). The fact that work engagement is a very accurate predictor of critical employee, team, and organizational outcomes is one factor in its popularity. Engaged employees execute superior in-role tasks due to their intense attention to and focus on their work activities (Bakker & Albrecht 2018). Additionally, engaged workers are open-minded individuals who are more likely to be innovative, creative and entrepreneurial in promoting organization's goals and development (Gawke et al., 2017; Orth & Volmer, 2017). Additionally, to these results on individual performance, studies have revealed that motivated employees are more likely to lend a hand to their coworkers. Engagement in teamwork has been demonstrated to positively correlate with team performance at the team level (Bakker & Albrecht 2018). One of the main problems facing businesses in the twenty-first century is employee retention (Ghani et al., 2022). Retaining staff is the hardest problem for businesses in the globalized, cutthroat labor market (Bharath, 2023).

1.2 Scope of The Study

The university system in Nigeria, the most populous country in Africa, has grown significantly throughout the years, demonstrating the nation's dedication to increasing educational possibilities. Nigeria's higher education sector has grown from modest beginnings to a thriving landscape of 301 universities in 2025 as it continues to adapt to local and global challenges (Weiss, 2025; National Universities Commission (NUC), 2025). Instead of a proactive, long-term national policy, the evolution of Nigeria's higher education system is a captivating story of reactive development, propelled by both internal nationalist sentiment and external influences (Nigeria234.com, 2025). The focus of the study is the Nigerian public universities in the Southwest geo-political zone. The unit of analysis is at the level of individual academic staff in these universities. The variables in this study include independent variables (IVs) - Power distance, Uncertainties avoidance, Individualism/collectivism, Masculinity/femininity, Long/short term orientation, Indulgence and restraint, mediating variable (MV) - Work engagement and dependent variable (DV) - Employee retention. Work engagement (MV) is measured using three constructs namely: Vigor, Absorption and Dedication. The dependent variable - Employee retention (DV) is a uni-dimensional variable. Gender is a mediator in this study. The definitions of these variables are provided in the section below. This study utilizes confirmatory factor analysis (CFA) and structural equation modeling (SEM) - Partial Least Squares Structural Equation Modeling (PLS-SEM) to analyze the path model. This study is expected to contribute significantly to the body of literature in the areas of employee retention and work engagement as well as organizational culture. Theoretically, the study further expands the Hofstede's cultural dimensions, SET and JD- R theories by building a framework that empirically tested the mediating role of work engagement on the relationship between organizational culture and employee retention.

1.3 Research Aim And Objective

The main aim of this study is to investigate the mediating role of work engagement on the relationship between organizational culture and employee's retention among academic staff of Nigerian Southwest Public Universities. The objective of the study is:

RO1: To examine the mediating role of work engagement on the relationship between organizational culture and employee retention among the Nigerian universities

1.4 Research Question

There is only one research question as shown below:

RQ1: Is there any mediating role of work engagement on the relationship between organizational culture and employee retention among the Nigerian universities? The relevant the hypothesis (H1). The hypothesis divided into six (6) based on the Hofstede's cultural dimensions of organizational culture (H1a – Haf).

2. Literature Review

2.1 Theoretical Background

2.1.1 Hofstede's Cultural Dimensions

Culture is typically understood to include values, beliefs, conventions, and other elements that direct and influence human behaviors in society, despite its pervasiveness, ambiguity, and wide range of characteristics (Cao et al., 2020). Collectively, people's actions shape and support a country's culture. Governments in every nation act when the world is in crisis, but prevalent national cultures may influence individuals' reactions, which may result in noticeably different outcomes (Cao et al., 2020). Hofstede's concept of cultural aspects is one area of psychological research that has inspired academics. According to Geert Hofstede's construct of national cultural dimensions, a country's culture on a specific value dimension is connected to its citizens' behavior (Ying et al, 2020). Power distance, uncertainty avoidance, individualism/collectivism, and masculinity/femininity were the first four culture-related dimensions he studied as an organizational psychologist. He later expanded these four dimensions into six dimensions of national cultures with dimensions long-term/short-term orientation and indulgence/restraint (Ying et al., 2020; Cao et al., 2020). Power distance reflects the degree to which lower society members accept an unequal distribution of power; collectivism-individualism indicates the interrelationships and interdependency among society's members; masculinity-femininity refers to an individual's preference for achievement, heroism and materialism or for cooperation, modesty and sympathy; uncertainty avoidance reflects the degree of uncomfortability with uncertainty and ambiguity; long-term orientation—short-term orientation indicates the degree of highlighting the present or the future; and indulgence-restraint means following strict social norms or enjoying life and having fun (Hofstede, 2011; Ying et al., 2020). Researchers have successfully used Hofstede's cultural dimensions framework which was initially designed as national culture to measure organizational culture. Accordingly, organizational culture is influenced by national culture, which has an impact on how well an organization achieves its

objectives (Piwowar-Sulej, 2021). Empirical evidence has also shown how country differences affect particular jobs, such risk management. In different cultures, risk is viewed and handled differently (Piwowar-Sulej, 2021). Recent scholars have utilized Hofstede's cultural dimensions to measure organizational culture in research relating to work engagement and employee retention albeit in different contexts. In the context of work engagement, Ahmad & Gao (2018) and Xu et al. (2019) utilized some of the constructs of the Hofstede's cultural dimensions. Ahmad & Gao (2018), for instance, investigated the mediating role of psychological empowerment in the relationship between ethical leadership and employee work engagement as well as the moderating effect of power distance orientation in the context of employees from the banking sector in Pakistan. On the other hand, Xu et al. (2019) examined the relationships among affective well-being, work engagement, collectivist orientation, and organizational citizenship behavior in the context of employees from a telecom company in China. In this study, the six dimensions of Hofstede's cultural model are conceptualized to measure the prevalence organizational cultures in the Nigerian Universities. Specifically, the study examines the effect of six dimensions of Hofstede's cultural model on work engagement in these universities. Questions such as: how low or high power distance affects work engagement; how low or high uncertainty avoidance affects work engagement; how individualism or collectivism behavior in the universities affects work engagement; how masculinity or femininity behavior in the universities affects work engagement; how short-term or long-term orientation in the universities affects work engagement and how indulgence or restraint behavior in the universities affects work engagement were answered in this study.

2.1.2 Job Demands-Resources Theory (JD-R)

The JD-R model is a heuristic paradigm that explains how two distinct sets of work characteristics, namely job demands and job resources, may result in burnout and WE. According to the definition of a job demand, it is "those physical, social, or organizational components of the job that demand persistent physical or mental effort and are consequently linked to specific physiological and psychological costs" (Bakker & Demerouti, 2017, p. 312). Instead, workplace resources are described as "those physical, social, or organizational features of the job that may be functional in attaining work goals; (b) minimize job demands and the accompanying physiological and psychological costs; (c) inspire personal growth and development" (Bakker & Demerouti, 2007, p. 312). According to the JD-R model, work engagement mediates the effects of JRs on positive outcomes, as JRs are assumed to have inherent motivational qualities, whereas burnout mediates the effects of job demands on negative outcomes (i.e., health problems) (Bakker & Demerouti, 2017). The former is called the motivational process, which is the focus of the current study, while the latter is known as the health impairment process (Rahmadani et al., 2020). The increased amount of research and practices on WE have also boosted the search for its antecedents. Most studies use the job demands-resources (JD-R) model to investigate WE (Bailey et al., 2017; Rahmadani et al., 2020), suggesting that the interaction between employees' job demands and resources fosters WE. Researchers have applied the JD-R model in studies relating to work engagement, albeit in different contexts. For example, utilizing the JD-R model, Rahmadani et al. (2020) found in their research that engaging leadership predicts T1-T2 increase in work engagement (WE) directly in

the context of employees from an agribusiness state-owned company in Indonesia. In another context, Agarwal & Gupta (2018) also utilized the model to examine the relationships between motivating job characteristics, work engagement, conscientiousness and managers' turnover intentions. The study found evidence of the mediating role of work engagement on the relationship between motivating job characteristics and managers' turnover intentions in the context of managers working in eight Indian private sector organizations. This study applies the model to test the effect of organizational culture issues prevalent among Nigerian universities such as excess job demands (high workload, role ambiguity and role conflict) that requires the academic staff to continually engage in physical or mental effort and lacking of job resources (funding, remuneration, autonomy, support and job security, among others.) on the level of work engagement in those universities through energy-draining activities and a stress process which may lead to burnout. The impact on institutions' ability to retain academic employees while they are under stress and burnout is severe. These academic staff members may get overburdened by prolonged exposure and, in an effort to preserve energy and prevent weariness, may lessen the effort made, which frequently shows up as diminished performance or increased intention to quit.

2.1.3 Social Exchange Theory (SET)

The Social Exchange Theory (SET) is popular among the management researchers. SET describes how the advantages gained from service exchange determine social interactions (Cropanzano et al., 2017). The theory proposes that people connect with one another based on an evaluation of the advantages and disadvantages of such interactions made in their own self-interest (Jahan & Kim, 2021). SET suggested highlighted the importance of individual exchange orientation in social exchange relationships (Jahan & Kim, 2021). According to the theory, people will respond to advantages (such as goods, a friendly atmosphere, attitudes, or emotions) with advantages and to disadvantages (such as threats or dishonor) with either indifference or hostility (Cropanzano et al., 2017). Additionally, the social exchange theory contends that people's self-interests may have an impact on reciprocity standard (Bui et al., 2020). In general, social exchange theory advances the idea that the norm of reciprocity is the key driver of exchange processes – benefit provision triggers an appropriate set of responses (Nguyen et al., 2022). Furthermore, the norm of reciprocity between exchange partners is not necessarily unconditional (Nguyen et al., 2022). The degree of reciprocity may vary according to certain conditions (such as the nature of the relationship, environment, value, and others), which offers insight into what type of response is likely to maximize recipients' benefits (Nguyen et al., 2022). In the context of employment relationships, a social exchange relationship between an organization and its employees is founded on the socio-emotional nature of relationships based on mutual trust, shared values and obligations beyond economic agreements, such as pay or comparable benefits for performance (Lee, 2022). Recent studies have applied the SET theory in research relating to employee retention albeit in different contexts. While building on the SET theory, Xuecheng et al. (2022) in their study found that there exists a significant positive impact of training and development, work environment, and job satisfaction on employee retention in the context of employees of SMEs in northern China. This study draws on the theory to examine the reaction of academic staff of the Nigerian Universities to the specific work environment

antecedents (organizational culture and work engagement) leading to interpersonal connections. The SET theory helps in this study in examining the relationship between benefits attained and the service exchanged among the academic staff and the effect on the ability of the organization to retain.

2.2 Critical evaluation of empirical studies

The mediating role of work engagement in the relationship between an independent variable and a dependent variable from the context of employee behavior had been examined in literature. Applying SET theory, extant researchers such as Chan (2019), Arokiasamy (2021), Arwab et al. (2023), Blaique et al. (2023), Aggarwal et al. (2022) found full mediation role of work engagement in their studies, however, and as expected the contexts are different. While Chan (2019) sampled 177 employees in a retailing store in Hong Kong and examined the relationships between participative leadership and employees' work engagement and job satisfaction, Arokiasamy (2021) sampled 221 expatriates working in the private higher education institutions in Vietnam when analyzing the relationship between perceived organizational support (POS), work engagement, and its implication to expatriate retention. Similarly, In India, Arwab et al. (2023) and Aggarwal et al. (2022) examined the mediating role of work engagement in their studies. While Arwab et al. (2023) sampled 397 employees working in tourism and hospitality industry specifically travel agencies operating in Delhi, India and analyzed the perception of employees towards training as well as the mediation effect of employee engagement between training and task performance, Aggarwal et al. (2022) sampled 432 employees working in IT companies operating in India and tested a model on antecedents and consequences of employee engagement. In the Middle East, Blaique et al. (2023) sampled 208 respondents working in the Middle East area during COVID-19 and explored the relationship between organizational learning (OL) and work engagement (WE). There are studies that found partial mediation role of work engagement (e.g., Yucel et al., 2023; Kamselem et al., 2022; Abdullahi et al., 2022, among others.). In the context of public hospitals, while Yucel et al. (2023)'s study was conducted on public hospital employees in Erzincan province, Turkey, Kamselem et al., 2022's study was conducted on the nursing staff of public hospitals in Nigeria's North-western states. Kamselem et al. (2022) found out that (EE) has a partial mediating role in the relationship between reward system (RS), job conditions (JC) and employee retention (ER). Yucel et al. (2023) on the other hand found out that work engagement has a partial mediating effect in the relationship between work-family conflict and turnover intention. Abdullahi et al. (2022)'s study was conducted in the context of Malaysian private universities (MPUs) and sampled 314 employees of Malaysian private universities. Results showed that employee engagement (EE) partially mediates the relationship between talent management (TM) practices and employee performance (EP).

2.3 Conceptual framework

Based on the six cultural dimensions of Hofstede's framework and their relationships with work engagement and employee retention as discussed above, the conceptual framework is presented in Figure 3 below.

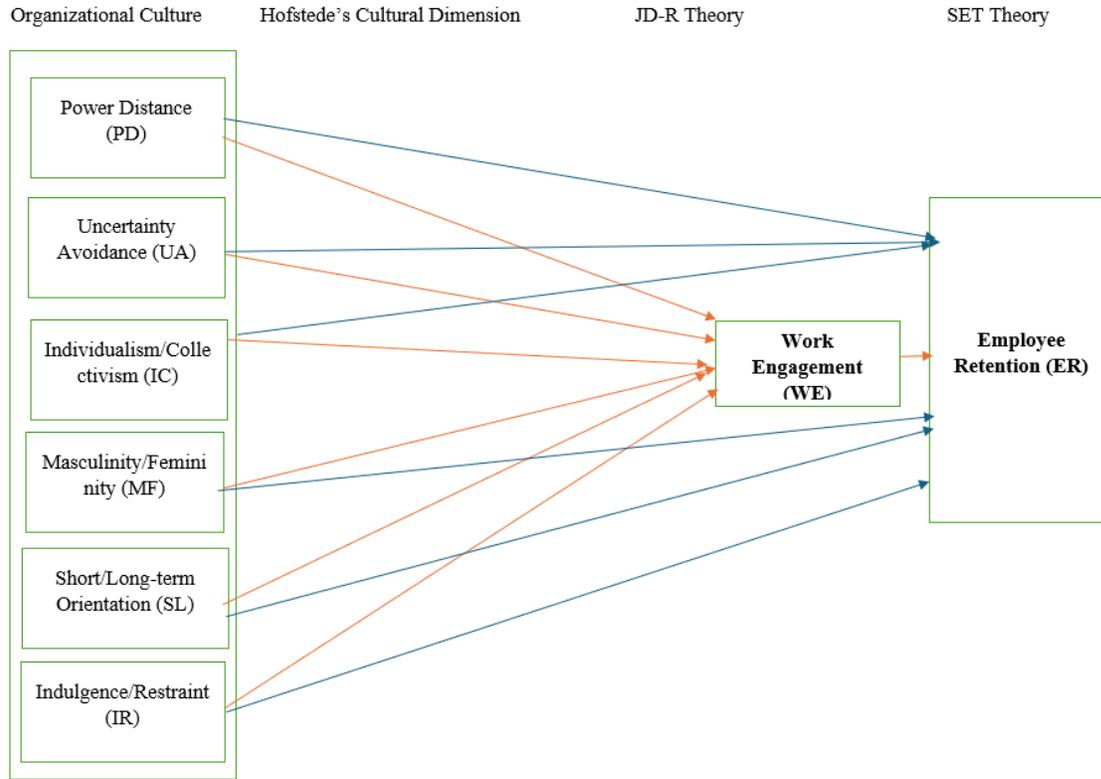


Figure 3: Conceptual framework

In this study, the mediator variable is work engagement. The assumptions are (1) there is a direct relationship between organizational culture (IV) and employee retention (DV), (2) there is a direct relationship between organizational culture (IV) and work engagement (MV), (3) there is a direct relationship between work engagement (MV) and employee retention (DV) and (4) there is an indirect relationship between organizational culture (IV) and employee retention (DV) through work engagement (MV). In other words, work engagement explains the process through which organizational culture and employee retention are related. Put simply, the mediated model consists of direct effect between organizational culture and employee retention (path A) and the indirect effect path (paths B & C) respectively from IV-MV-DV. The path analysis is shown in figure 4 below. SEM is used to estimate the paths.

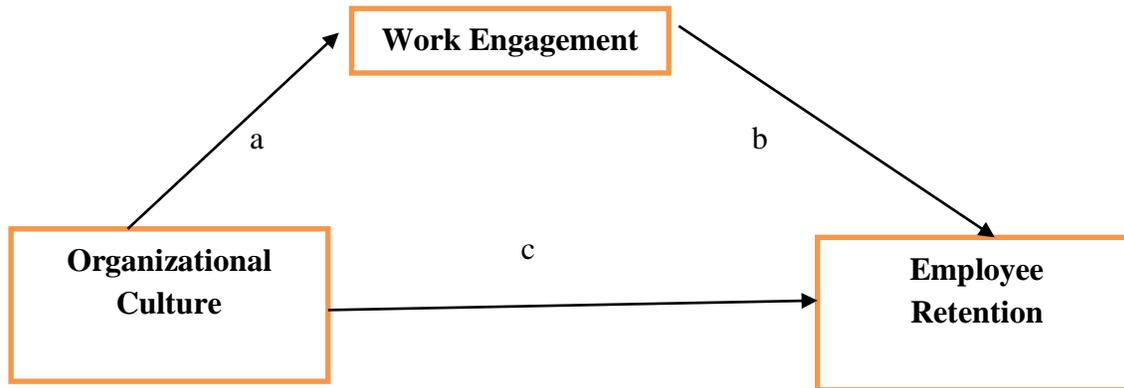


Figure 4: Mediation analysis

2.4 Hypotheses Development

One hypothesis was developed to statistically investigate the mediating role of work engagement on the relationship between organizational culture dimensions and employee retention based on the three dimensions of the work engagement. The mediating role of work engagement in the relationship between an independent variable and a dependent variable from the context of employee behavior had been examined in literature. Applying SET, extant researchers such as Chan (2019), Arokiasamy (2021), Arwab et al. (2023), Blaique et al. (2023), Aggarwal et al. (2022) found full mediation role of work engagement in their studies, however, and as expected the contexts are different. There are studies that found partial mediation role of work engagement (e.g., Yucel et al., 2023; Kamselem et al., 2022; Abdullahi et al., 2022, among others.). In the context of public hospitals, while Yucel et al. (2023)'s study was conducted on public hospital employees in Erzincan province, Turkey, Kamselem et al., 2022's study was conducted on the nursing staff of public hospitals in Nigeria's North-western states. Kamselem et al. (2022) found out that (EE) has a partial mediating role in the relationship between RS, JC and ER. Yucel et al. (2023) on the other hand found out that work engagement has a partial mediating effect in the relationship between work-family conflict and turnover intention. Other scholars applied theories such as JD-R theory (e.g., Ali Abadi et al. 2023), RBV theory (e.g., Garg et al. 2021) and Leadership theory (e.g., Park et al., 2022) while investigating the mediating role of work engagement. The results suggest that work engagement substantially mediates the relationship between the independent variable and dependent variables used in the studies. However, Park et al. (2022) in their study found out that employee engagement only partially mediated the relationship between the relationships tested but fully mediated the association between TL and JP. Nevertheless, studies investigating the mediating role of WE on the relationship between OC and ER appear not to be available in literature. It is important to examine the process through which OC and ER are related in the context of Nigerian universities by factor in the mediating effect of WE. In view of the above gap in literature, this study postulates the hypothesis (H1) below. The hypothesis is divided into six (6) based on the Hofstede's cultural dimensions of organizational culture (H1a – H1f).

H1: Work engagement mediates the relationship between the Hofstede's cultural dimensions of organizational culture and employee retention.

3. Research Design and Methodology

Primary data source via survey questionnaire was utilized in this study. This researcher gathered opinions from academic staff of Nigerian universities at a certain moment in order to establish the links between the study variables, which include organizational culture and employee retention, hence correlational research design was deemed appropriate for the study. This research design allows the researcher to collect quantitative data via survey questionnaire and statistically tests the hypotheses proposed in the study. Additionally, the method allows the researcher to describe the strength and direction of the relationships among the study variables and if relationships are established, this researcher can use scores on one variable to predict scores on the other. The survey questionnaire utilized is developed to answer the research questions formulated for this study and it conforms with what is obtainable in literature especially in research utilizing Hofstede's cultural dimensions to measure organizational culture, vigor, dedication absorption dimensions to measure work engagement as well as multiple items to measure employee retention. The unit of analysis in this study is the individual lecturer included in the sample. The survey questionnaire is divided into four (4) sections namely: demographic information, organizational culture dimensions (independent variables), work engagement dimensions (mediating variable) and employee retention (dependent variable).

3.1 Population size and sampling technique

The number of individuals or observations included in a study is referred to as the sample size (Wutich et al., 2024). Usually, n is used to indicate this number. The National Universities Commission (NUC) also revealed that Nigeria currently has 100,000 academic staff members teaching and supervising about 2.1 million students in universities across the country. However, over 50%, i.e., 54,640 currently teach at public universities. In other words, the target population for the study comprises of 54,640 academic staff of Nigerian public universities. The diagrammatic distribution of population at the Nigerian universities staff based on their designations as well as their number in federal, state, and private universities is presented in Figure 5 below.

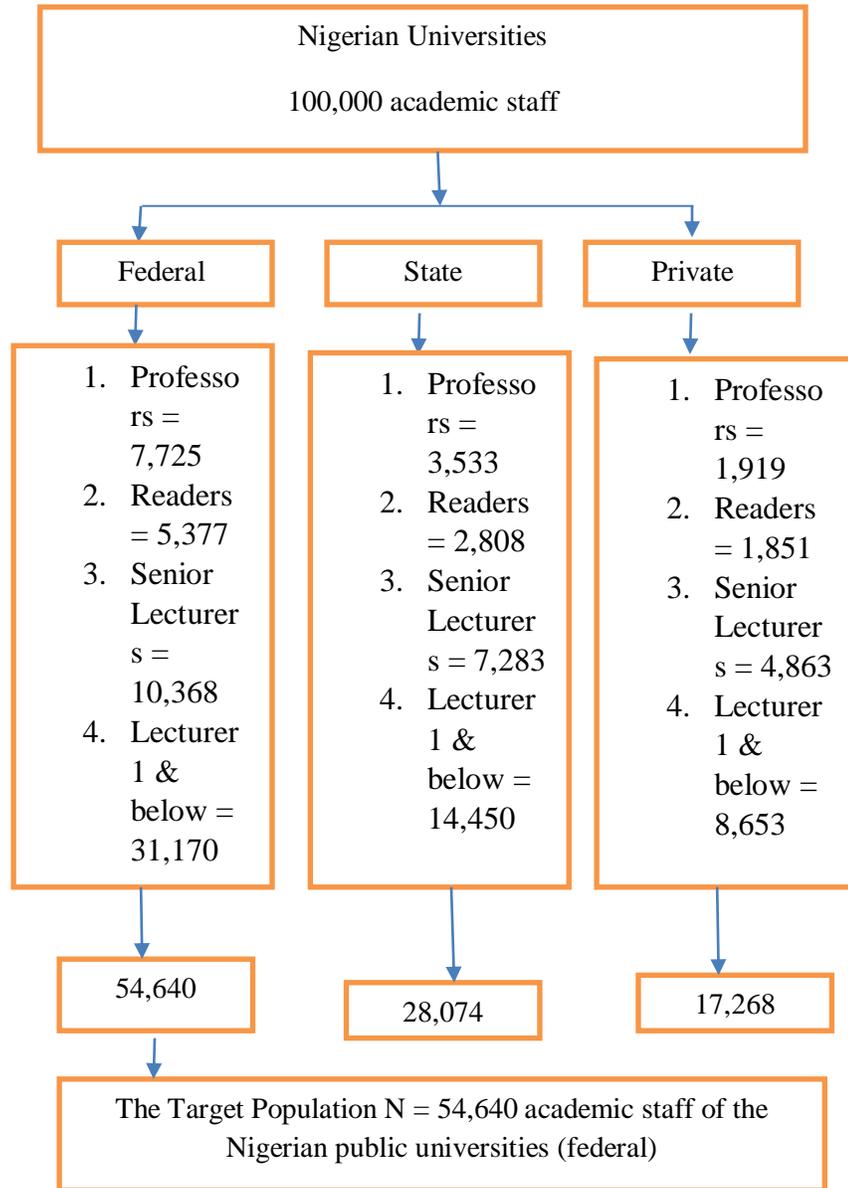


Figure 5: Diagrammatic Distribution Of Population At The Nigerian Universities

In this study, Raosoft® software is used to estimate the suitable sample size with acceptable margin of error and confidence level set at 5% and 95%, respectively. The total population size (N) is 54,640 and the response distribution is set at 50%. Based on these assumptions, the software’s recommended sample size is 382 participants as shown in Figure 6 below.

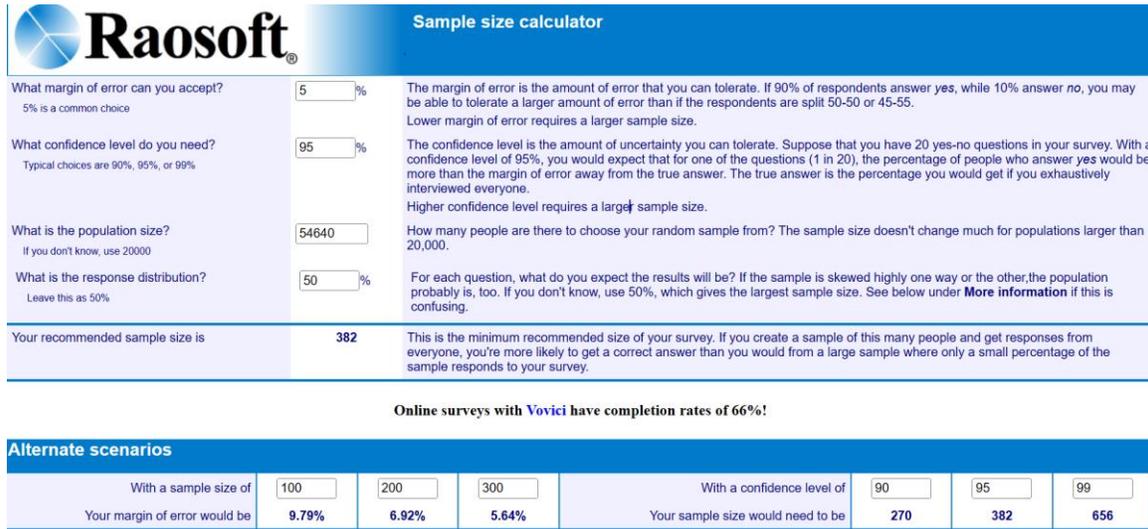


Figure 6: Recommended sample size by Raosoft® software

Alternatively, Trafimow (2017) provides an accessible derivation of a simple equation: $n_a = (z_c/f)^2$, where:

n_a = the minimum sample size

z_c = the critical z-score that corresponds to the specified probability

f = standard deviation

For example, suppose the researcher desires confidence level of 95% probability of obtaining a sample mean within 0.1 of a standard deviation of the population mean then the necessary sample size would be $n_a = (1.96/0.1)^2 = 384.16$, or 384 rounded to the nearest higher whole number (Wang et al., 2022).

When the estimated total population of 54,640 is factored in, the formula changes to $n = n_a / (1 + (n_a/N))$ where:

n = the minimum sample size

n_a = the initial sample size calculated based on the formula above (384)

N = the population size of 54,640

1.0070278184

Therefore, the required minimum sample size is = 381.3 approximately 381.

Larger samples are needed for structural equation modeling (SEM) compared to other multivariate methods. With limited samples, researchers discovered that some SEM-based statistical techniques were unreliable. Different people have different views on the ideal sample size, however, the necessary sample size for SEM is affected by five factors, and these include: the number of missing data points, the complexity of the model, the estimation method, the multivariate normality of the data, and the average error variance of the reflective indicators (Ahmad & Halim, 2017). While Raosoft® software resulted in the same sample size of 382, Trafimow (2017) method resulted in 381, and therefore, the sample size for this study is set at

minimum 382 academic staff. Table 1 below depicts the recommended sample sizes from the three methods considered.

Table 1: Recommended Minimum Sample Size For The 3 Methods

S/N	Name of method used	Recommended sample size
1	Raosoft® software	382
2	Trafimow (2017)	381
3	Hair et al. (2012)	200-400

Based on the Times Higher Education University Ranking Systems (2023), the top ten (10) ranked universities in Nigeria are University of Ibadan, University of Lagos, Covenant University, Bayero University, Federal University of Technology Akure, University of Benin, University of Ilorin, University of Nigeria Nsukka, Obafemi Awolowo University, Ile-Ife and Federal University of Agriculture, Abeokuta. Incidentally, nine (9) of these highly ranked universities are public institutions with only one (1) being a private institution. Additionally, five (5) of the highly ranked universities in Nigeria as shown on Table 2 below are from the Southwest, Nigeria. Samples of 382 academic staff was the minimum data required to be collected in the five (5) universities.

Table 2: Highly Ranked Public Universities In Southwest, Nigeria

S/N	Five highly ranked Public Universities in the South-West
1	University of Ibadan
2	University of Lagos
3	Federal University of Technology, Akure
4	Obafemi Awolowo University, Ile-Ife
5	Federal University of Agriculture, Abeokuta

3.2 Data Collection

This researcher distributed survey questionnaires to academic staff currently employed by the five (5) highly ranked public universities in the South-West, Nigeria based on availability and convenience. The survey questionnaire utilized is developed to answer the research questions formulated for this study and it conforms with what is obtainable in literature especially in research utilizing Hofstede's cultural dimensions to measure organizational culture as well as multiple items to measure employee retention. The unit of analysis in this study is at the level of individual lecturer included in the sample. The questionnaire for this study was validated using the content validity (face validity). The questionnaire was sent to professors who are experts in the field of employee behavioral research from an organizational context. The data collection process began in March 2024 and ended in September 2024. The researcher travelled to Nigeria for data collection. All the five universities sampled were visited where the researcher met and had meetings with the heads of academy of all faculties within the universities. These

departmental heads helped in facilitating the process of questionnaire distribution to their various member staff and asked me to come for pick up after some period. The Table 3 below shows the summary of distributed, received, unused and used questionnaires for data analysis. In summary, the total questionnaires distributed were 470 out of which 409 were sent back representing 87% of the total distributed questionnaires. There were twenty (20) unused questionnaires as result of incompleteness, and this represents just 4% of the total. Overall, data from 389 questionnaires were extracted for data analysis after providing for missing data and outliers. This represents 83% of the total questionnaires distributed.

Table 3: Used And Unused Questionnaires

Description	Total Number	Percentage
Questionnaires distributed	470	100%
Questionnaire received	409	87%
Unused questionnaires	20	4%
Used questionnaires	389	83%

3.3 Data analysis plan

The primary data collected were analyzed quantitatively using Confirmatory Factor Analysis (CFA) and Structural Equation Modelling (SEM). Partial least squares structural equation modeling (PLS-SEM) was utilized in the study. The software used includes Statistical Package for the Social Sciences (SPSS) and SMARTPLS 4.0. The researcher examined the indicator loadings, composite reliability (CR), and average variance extracted (AVE), the outer model assessment sought to ascertain the validity and the reliability of the constructs. Path coefficients, R-squared (R^2) values, and the importance of the proposed links were all evaluated as part of the inner model assessment. Assessing each construct's indicator loadings is the first step in the outer model evaluation process.

4. Results Presentation

4.1 Demographic Analysis

There are eleven (11) demographic questions in the survey questionnaire ranging from asking the participants if they agree to voluntarily participate in the study to age group, gender, marital status, educational qualifications, basic salary range, designation, length of service, employment type, the university each participant works for and faculty/department. The first question specifically asked the participants to ‘*please indicate your agreement to the terms outlined above*’. As shown below, all participants who completed the questionnaires agreed to the information provided including participation in the study and this represents 100% agreement among all. This is shown on Figure 7 below.

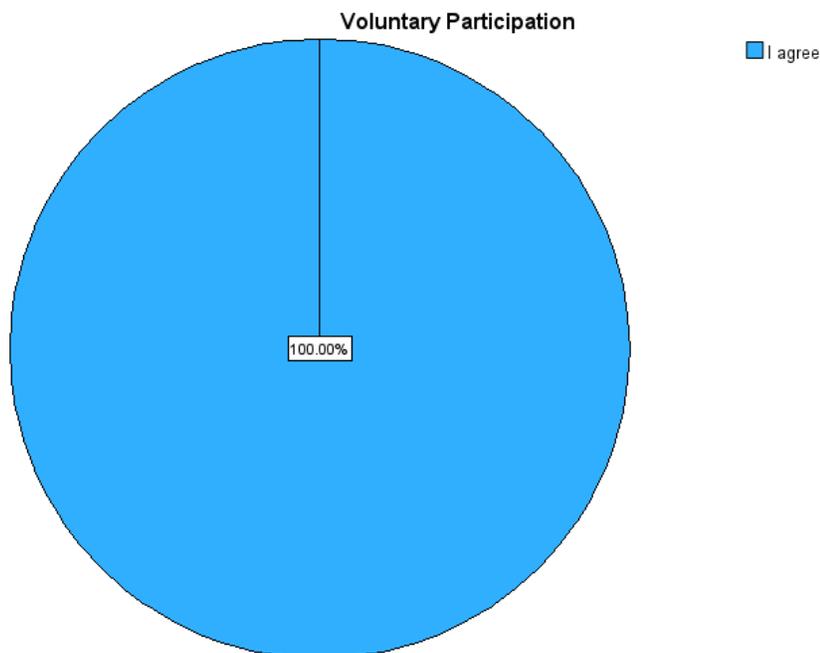


Figure 7: Voluntary participation Age Group

Figure 8 below depicts the age group of the participants. There are four categories: participants below the age of 30, those between the age of 31 and 40, those between the age of 41 and 50 and those above 50 years of age. As expected, the highest represented group based on age was those between the age 31 and 40. There were 139 of them representing 36% of the questionnaires used. The second most representative group based on age was those between the age 41 and 50. There were 111 of them representing 29% of the questionnaires used. The participants above the age of 50 were third in line with 92 of them representing 24% of the questionnaires used. The least representative group in terms of age is those below the age of 30 at just 47 of them representing 12% of the questionnaires used. The age group demonstrated among the participants of this study closely aligned with the known fact that Nigeria has of the youthful population in the world.

According to Okebiorun (2025). Nigeria, Africa's most populous country has a significant young population and Worldometer (2025) put the median age of the country at 18.1 years.

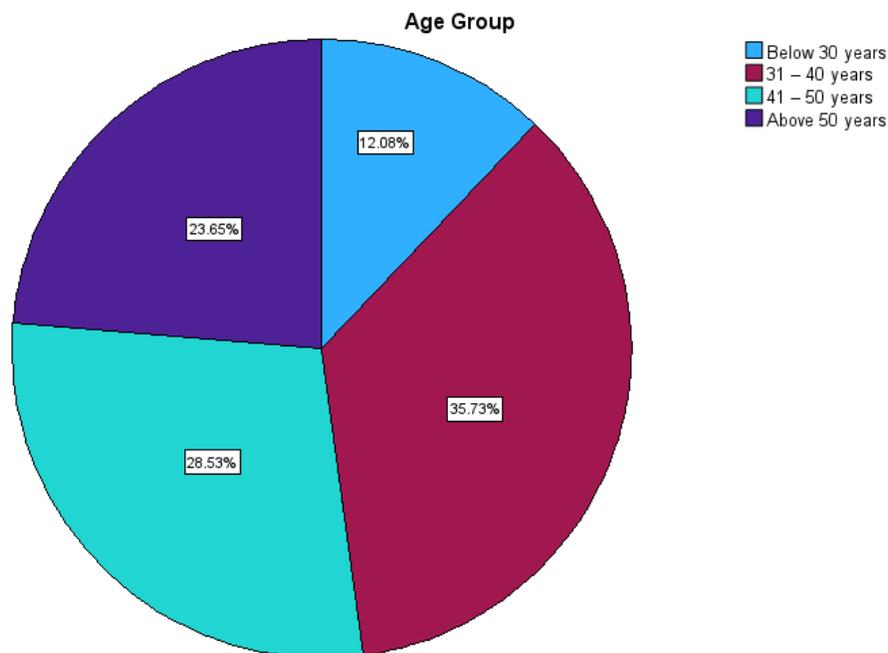


Figure 8: Age group

Gender

Figure 9 below depicts the gender of the participants. There are only two categories – male and females. There were many males’ participants than females at ratio 249:140 representing 64% and 36%, respectively. This is also related to the known fact that Nigerian universities are dominated by male lecturers. This study tests the moderating effect of gender in the relationships among variables by looking at gender individually as well as using Multigroup analysis (MGA) to differentiate the effect of female or male separately. This result slightly reflects current gender ratios in Nigeria. Nigeria's population structure shows a slightly higher male to female ratio of 1.02 to 1, with a median male age of 18.86 years old and a median female age of 19.03 years old (World Population Review, 2025).

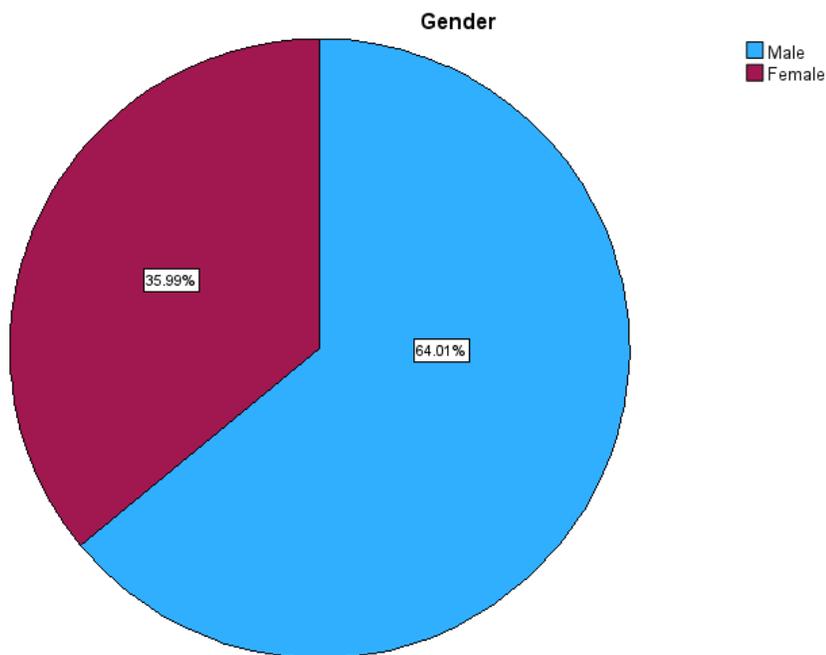


Figure 9: Gender

Marital status

Figure 10 below depicts the marital status of the participants. There are four categories: single, married, widowed and divorced. As expected, the participants who are married dominated the population at 301 representing 77% of the total sampled. There were 77 participants who are single, representing 20% of the used participants. While 7 participants were widowed, only 4 are divorced representing 2% and 1% of the population, respectively. Again, the results align well with a typical Nigerian community, where divorce rate is low and people get married as soon as they gain employment.

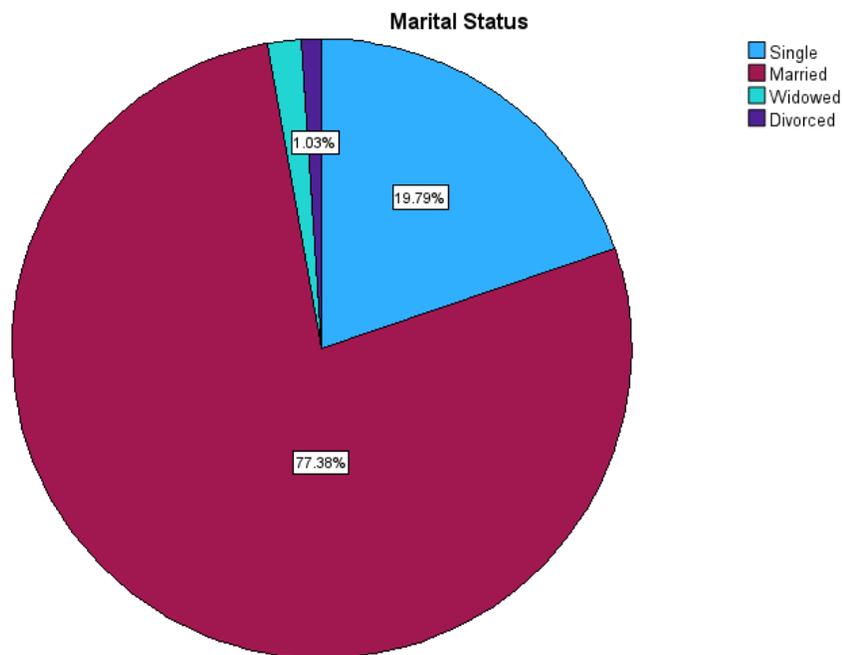


Figure 10: Marital status

Figure 11 below depicts the educational qualifications of the participants. There are four categories: bachelor's degree, master's degree, PhD/DBA and professional qualifications. As expected in an educational setting, the highest represented participants are those with Doctor of Philosophy (PhD) and Doctor of Business Administration (DBA). Collectively, there were 246 of them representing 63% of the total sampled. The second highest represented group is the participants with master's degree at 108 of them representing 28% of samples. While those with bachelor's degree numbered 26, those with professional qualifications numbered just 9, representing 7% and 2%, respectively. This data reflects the current designation of Nigeria as one of countries with highly educated citizens.

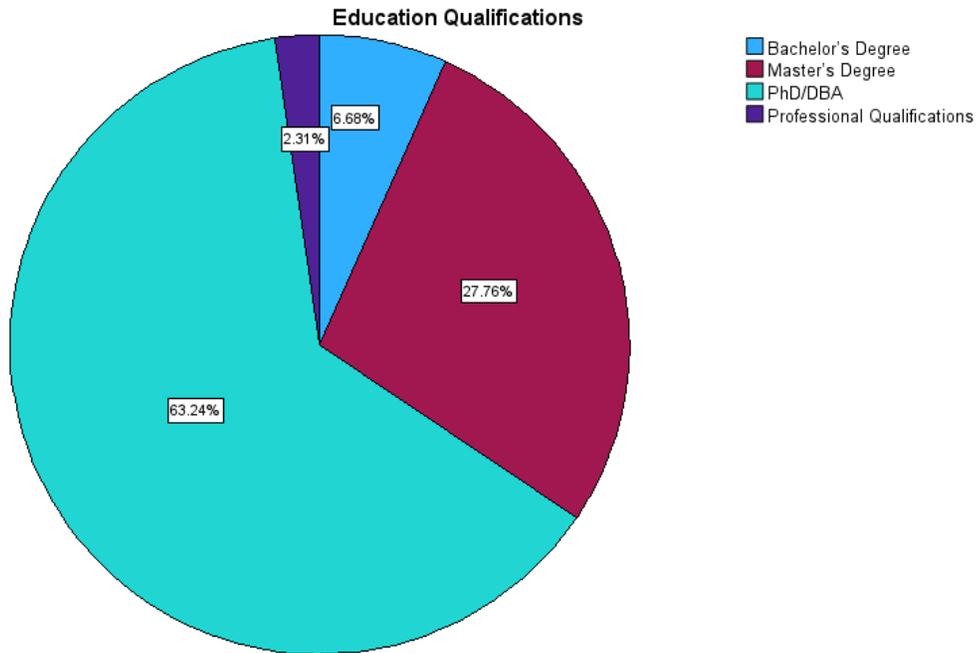


Figure 11: Educational qualifications

Basic Salary Range/Monthly

Figure 12 below depicts the monthly basic salary range of the participants. There are six categories namely: participants earning less than 100,000 naira, those earning between 100,001 and 200,000 naira, those earning between 200,001 and 300,000, those earning between 300,001 and 400,000, those earning between 400,001 and 500,000 and lastly, those earning above 500,000 naira. The highest represented participants are those earning 100,001- and 200,000-naira basic salary at 118 in total which represents 30% of the total sampled. This was closely followed by those participants earning between 200,001 and 300,000 at 108 in total, which represents 28% of the total sampled. Participants earning between 300,001 and 400,000 as basic salary were third on the list at 97 in total, which represents 25% of the total sampled. Those earning between 400,001 and 500,000 were fourth on the list at 32 in total, which represents 8% of the sampled population. The least represented groups are those earning less than 100,000 naira and those earning above 500,000 naira at 24 and 10 in numbers which represent 6% and 3%, respectively. The analysis above closely aligns with the current lamentation of many Nigerian academics in public universities as regards the pay they receive in comparison to others in private universities.

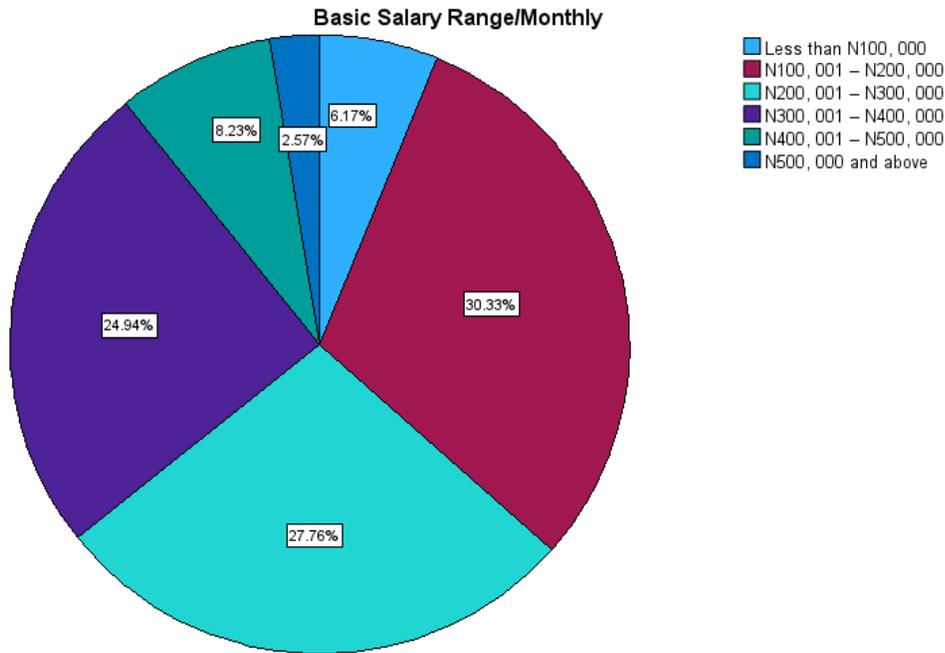


Figure 12: Basic Salary Range/Monthly

Designation

Figure 13 below depicts the designation of the participants. There are seven categories namely: graduate assistant, assistant lecturer, lecture II, lecturer I, senior lecturer, Reader/Associate professor and professor. Out of the seven groups, senior lecturers were the most represented at 85 in total representing 22% of the total sampled. Lecturer II was second most represented group at 73 in total, which represents 19%. The third most represented group falls under Lecturer I category and there were 55 of them, which represents 14% of the population under consideration. There were 53 professors, which represents also 14% of the samples and the fourth most represented group. There were 52 assistant lecturers representing 13% of the samples and the fifth most representative group. Readers/Associate professors are next on the list with 44 participants representing 11% of the population. The least representative group, as expected, were the participants who are currently designated as graduate assistants at just 27 in total representing 7% of the sampled population.

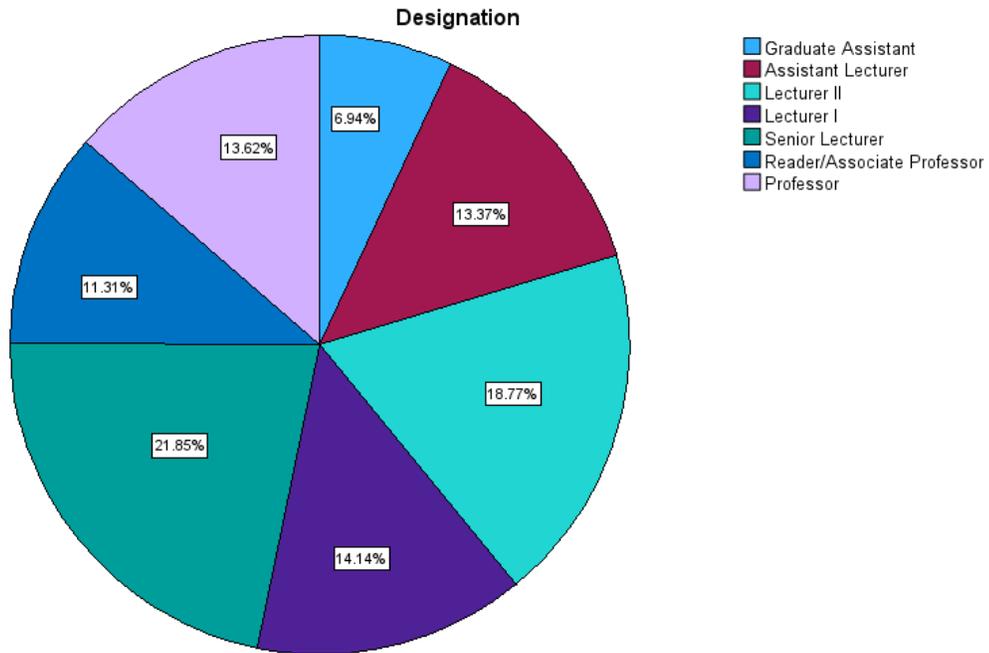


Figure 13: Designation

Length of Service

Figure 14 below depicts the participants length of services. There are four categories namely: those who started working less than 2 years ago, those who have been with their universities between 2 and 5 years ago, those who have been with their universities between 6 and 10 years ago and those who have been with their universities for more than 10 years. The highest represented group in terms of length of service was those who have been with their universities for more than 10 years, 174 participants, which represents 45% of the total sampled. The group of academic staff who have 6 to 10 years of employment with their respective universities under their belt was the second highest represented group at 100 participants representing 26% of the sample. The group of academic staff who have been with their universities for less than 2 years was third on the list with 60 participants representing 15% of the population. The least represented group was that of participants who have been with their respective universities between 2 to 5 years with 55 of them which represents 14% .

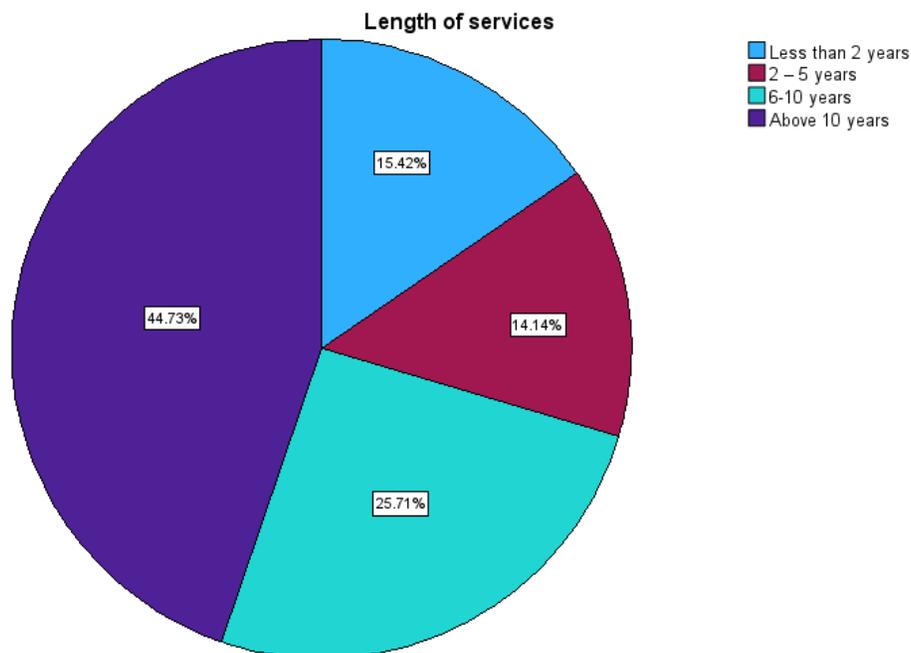


Figure 14: Length of service

Employment Type

Figure 15 below depicts the participants' employment type. There are three categories namely: contract employment, part-time employment and full-time employment. As expected, the group of participants with full-time employment status dominated the population at 92% with 358 participants. There were 17 and 14 participants who work part-time and on a contractual basis and they each represent 4% of the sampled population. This again aligns with most universities in Nigeria and around the world where employments are usually permanent and on full-time basis.

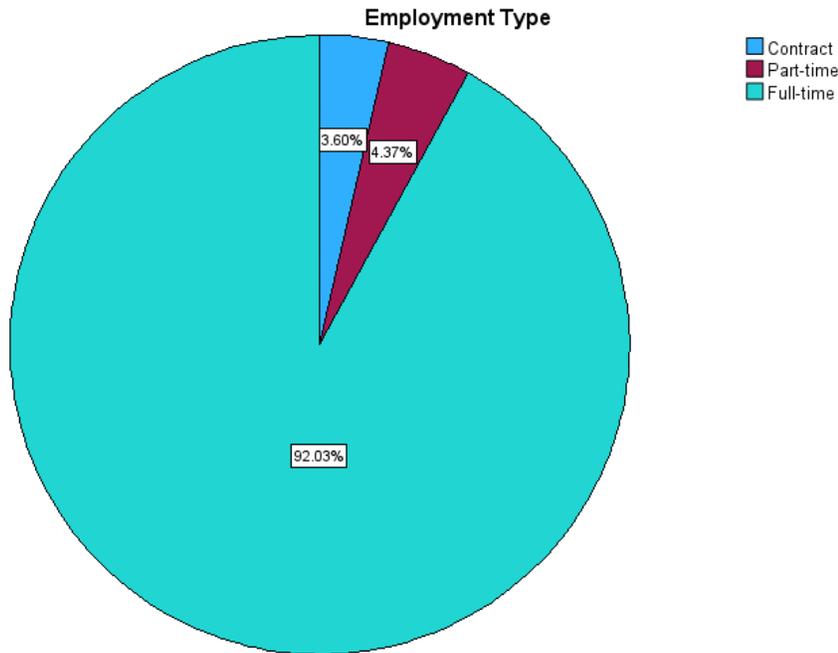


Figure 15: Employment type

Which Of The Following Universities Do You Currently Lecture At?

Figure 16 below depicts the Universities the participants currently lecture at. There are five Universities sampled in this study namely: University of Ibadan, University of Lagos, Federal University of Technology, Akure, Obafemi Awolowo University, Ile-Ife and Federal University of Agriculture, Abeokuta. The University with the most participants was Obafemi Awolowo University, Ile-Ife with 138 respondents representing 35% of the total usable questionnaires. University of Lagos was second on the list of most represented with 82 respondents representing 21% of the population. Federal University of Technology, Akure was third on the list of most represented with 69 respondents representing 18% of the population. University of Ibadan was ranked fourth on the list contributing 62 participants which represent 16% of usable questionnaires. The university with the least participants was Federal University of Agriculture, Abeokuta with only 38 respondents, which represents 10% of the total questionnaires in usable condition.

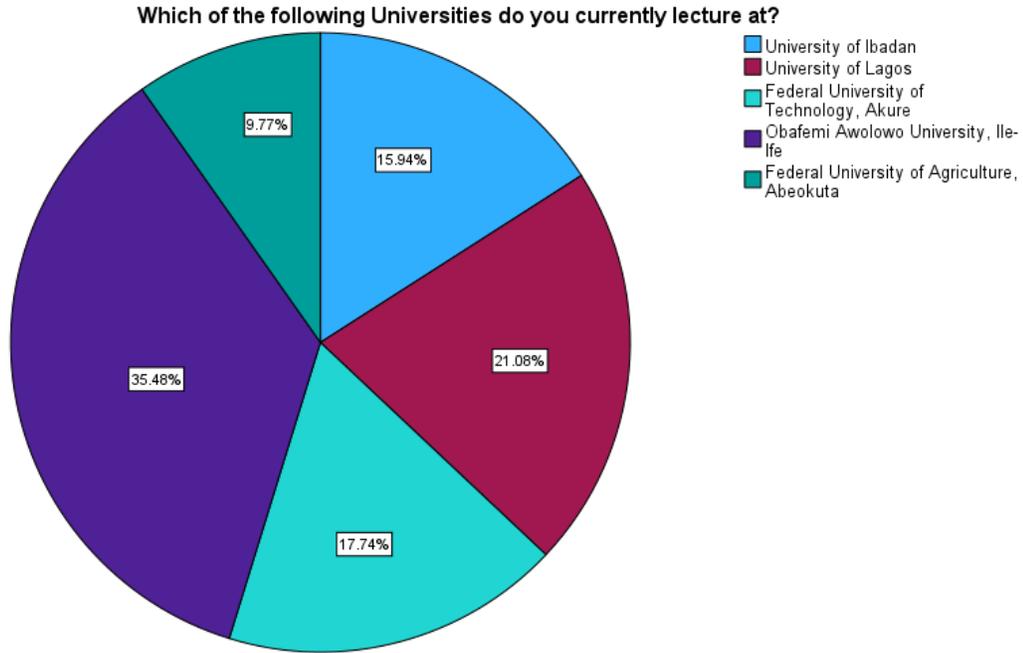


Figure 16: Which of the following Universities do you currently lecture at?

Faculty/Department

The last demographic data relates to the faculty/departments that the participants belong to. Figure 17 below depicts the faculty/department of the respondents. There are eleven categories in all including: Faculty of Agriculture and Forestry, Faculty of Arts, College of Medicine, Faculty of Education, Faculty of Science/Pharmacy, Faculty of The Social Sciences, Faculty of Technology, Faculty of Engineering, Faculty Of Business & Law, Faculty of Management Science and Other Faculty. As shown on Table 4.3 below, the faculty with the most participants were the Faculty of Science/Pharmacy with 81 respondents which represent 21% of the total sampled. College of medicine was second on the list of most represented at 67 respondents representing 17% of the questionnaires used. Faculty of education and other faculty were next on the list with 52 and 49 participants, which represent 13% each. Faculty of engineering was next on the list with 37 participants, which represents 10% of the questionnaires used. Faculty of Arts and Faculty of technology had similar numbers at 26 and 27 respondents, respectively. These represent 7% each. Faculty of Agriculture and Forestry and Faculty of Social Sciences had the same number of participants at 18, which represents 5% each. Faculty Of Business & Law Was next on the list with 10 participants representing 3% of the sampled population. The least represented faculty was Faculty of Management Science, at 4 participants representing only 1% of the population.

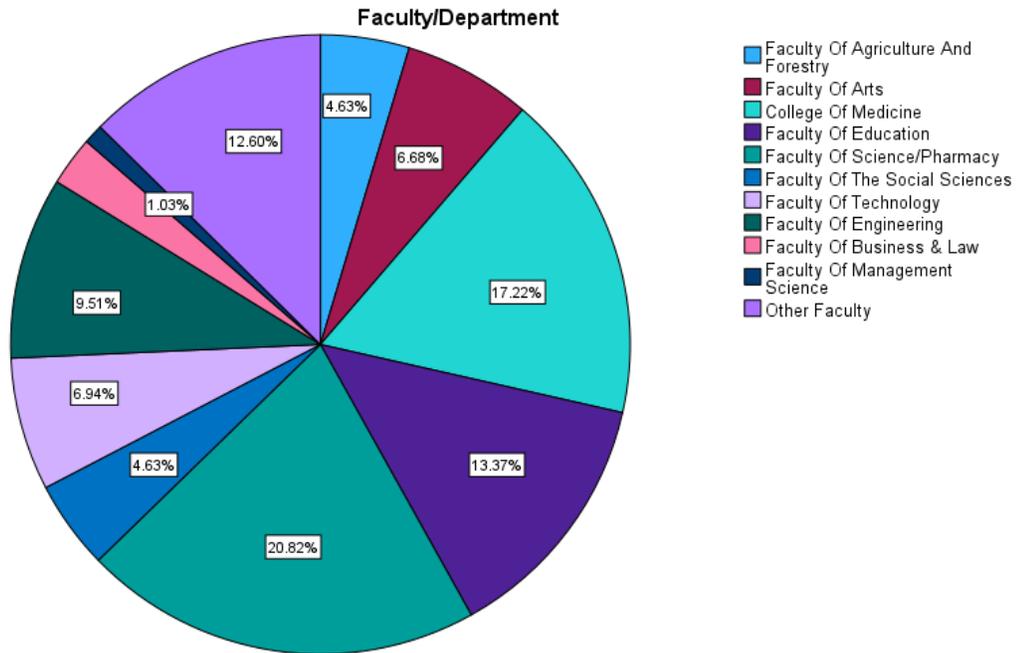


Figure 17: Faculty/Department

4.2 Reliability Test

The most widely used test to determine an instrument's reliability is the Cronbach's Alpha reliability coefficient (Taber, 2018), and Table 4 below shows the Cronbach's Alpha Coefficients of all the 56 items on the research instruments and individually for each of the eight (8) variables. There are six (6) independent variables used to measure the Hofstede's dimensions of organizational culture, one mediating variable (work engagement) and one dependent variable (employee retention). All the six variables of Hofstede's dimensions of organizational culture were measured by five constructs each, however, work engagement was measured using seventeen constructs (17) of the Utrecht Work Engagement Scale (UWES-17) which divides work engagement into 3 dimensions: vigor, dedication and absorption. As shown below, the Cronbach's Alpha Coefficient of all 56 items was 0.943 which can interpret as excellent internal consistency. The eight variables had Cronbach's Alpha Coefficients ranging from 0.757 (Power Distance (PD)) and 0.872 (Work Engagement (WE)) which fell within the 0.70 and 0.80 acceptable level. Consequently, the reliability of the data is confirmed for factor analysis.

Table 4: Coefficients Of Variables (Cronbach Alpha)

Constructs	Number of items	Cronbach's Coefficient	Alpha
All 56 items	56	0.943	
Power Distance (PD)	5	0.757	
Uncertainty Avoidance (UA)	5	0.830	
Individualism/Collectivism (I/C)	5	0.765	
Masculinity/Femininity (M/F)	5	0.833	
Long-term/Short-term Orientation (L/S)	5	0.772	
Indulgence/Restraint (IR)	5	0.772	
Work Engagement (WE)	17	0.872	
Employee Retention (ER)	9	0.833	

4.3 Confirmatory Factor Analysis

In the combined model, dimensions of organizational culture, work engagement and employee retention were combined and tested for PLS-SEM algorithm. The construct ER1 (employee retention) and WE3 (work engagement) have outer loadings below 0.400 thereby failing to meet the rule of thumb. The Average Variance Extracted values for Work Engagement and Employee Retention also failed to meet the 0.500 requirements, therefore, the model was subsequently re-run after removing the two constructs. After re-running, WE1 (work engagement construct number 1) was also removed for the same reason. The model indices and the diagrammatic representation of combined model are shown on Table 5 and Figure 18 below, respectively.

Table 5: Outer loading of Re-run Combined Model – OC-WE-ER

Constructs	Items	Outer Loadings	AVE	CR (rho_a)	CA
Power Distance (PD)	PD1	0.738	0.505	0.773	0.759
	PD2	0.784			
	PD3	0.667			
	PD4	0.676			
	PD5	0.681			
Uncertainty Avoidance (UA)	UA1	0.509	0.601	0.819	0.823
	UA2	0.809			
	UA3	0.842			
	UA4	0.851			
	UA5	0.811			

Individualism/Collectivism (IC)	IC1	0.715	0.510	0.782	0.765				
	IC2	0.787							
	IC3	0.667							
	IC4	0.686							
	IC5	0.708							
Masculinity/Femininity (MF)	MF1	0.855	0.598	0.852	0.834				
	MF2	0.769							
	MF3	0.709							
	MF4	0.801							
	MF5	0.725							
Long/Short-term Orientation (LS)	LS1	0.736	0.525	0.790	0.776				
	LS2	0.776							
	LS3	0.659							
	LS4	0.683							
	LS5	0.763							
Indulgence/Restraint (IR)	IR1	0.764	0.514	0.822	0.773				
	IR2	0.781							
	IR3	0.783							
	IR4	0.765							
	IR5	0.418							
Work Engagement (WE)	WE2	0.415	0.500	0.908	0.874				
	WE4	0.439							
	WE5	0.445							
	WE6	0.566							
	WE7	0.566							
	WE8	0.760							
	WE9	0.756							
	WE10	0.446							
	WE11	0.598							
	WE12	0.745							
	WE13	0.775							
	WE14	0.555							
	WE15	0.544							
	WE16	0.774							
	WE17	0.467							
	Employee Retention (ER)	ER2				0.577	0.500	0.863	0.848
		ER3				0.523			
ER4		0.763							
ER5		0.788							
ER6		0.753							
ER7		0.817							
ER8		0.685							
ER9		0.645							

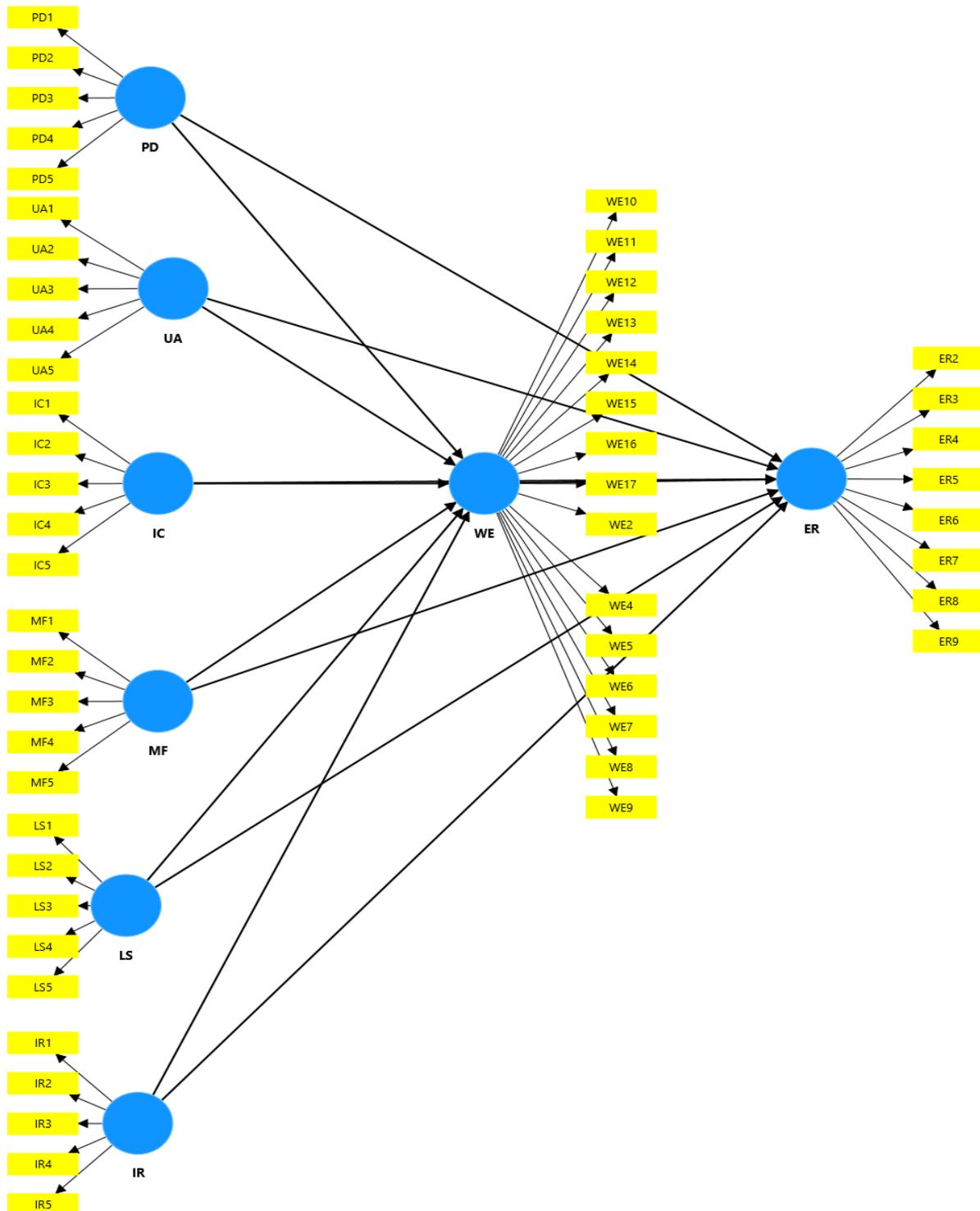


Figure 18: Combined Model

4.4 Structural Equation Modelling

According to Hair et al. (2023), Nitzl et al. (2016) and Memon et al. (2019), the systematic analysis of mediation in PLS-SEM can be described using Figures 19 and 20 below. As illustrated below, the direct effect is represented by p_3 , indirect effect is represented by $p_1 \cdot p_2$, and the direct effect (p_3) + the indirect effect ($p_1 \cdot p_2$) equal to the total effect.

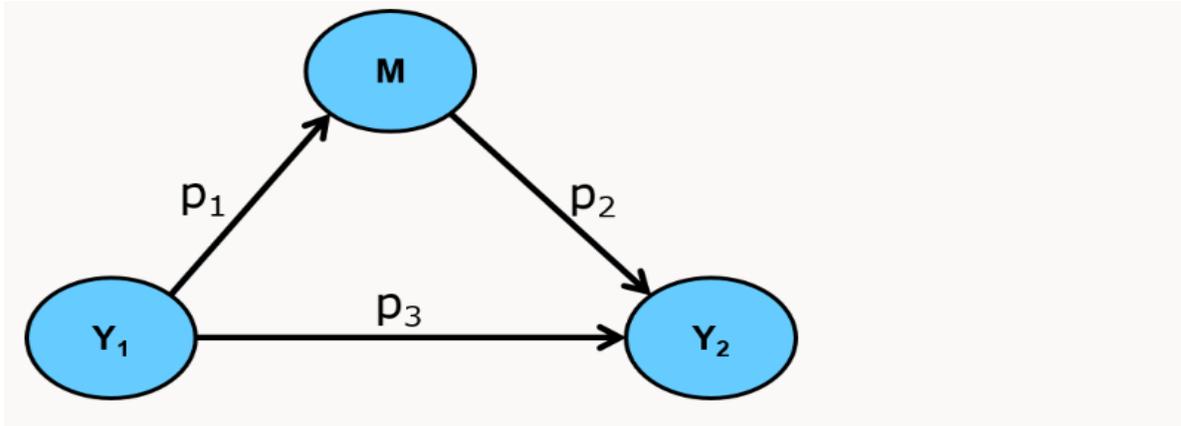


Figure 19: Mediation Analysis: Source: Hair et al. (2023)

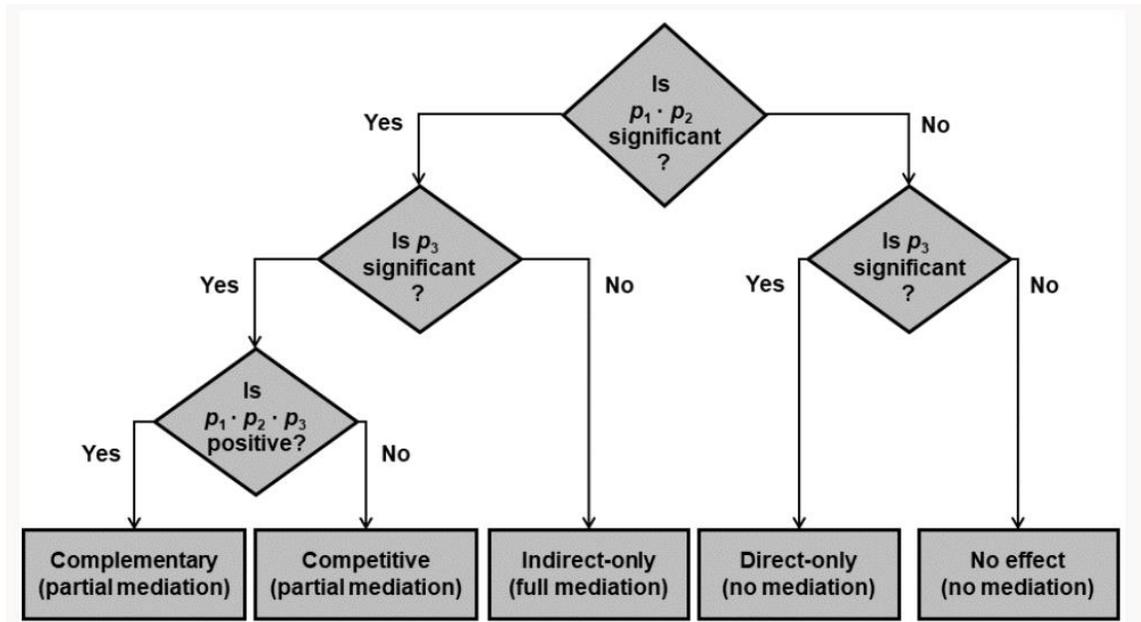


Figure 20: Mediation Analysis Interpretation: Source: Hair et al. (2023)

4.5 Hypotheses testing

Bootstrapping analysis of the direct effect between the construct was carried out and the researcher calculated the variance accounted for (VAF) value and compared the indirect effect to the total effect through which the work engagement's indirect effect magnitude is assessed. To

determine the mediation, the t-value is compared with the crucial t-value of the two-tailed test at the significance level of 5% to reject the null hypothesis. The rule of thumb for variance accounted for (VAF) value is shown below:

The VAF value can be used to determine the type of mediation:

- > 80%: Full mediation
- $\leq 20\%$ VAF $\leq 80\%$: Partial mediation
- <20%: Not a mediator

5. Analysis and Discussion

H1a - Work engagement (WE) mediates the relationship between the Hofstede's cultural dimension - power distance (PD) and employee retention (ER)

In the hypothesis above, p_1 represents the direct relationship between independent variable - power distance (PD) and mediating variable - work engagement (WE). On the other hand, p_2 represents the direct relationship between mediating variable - work engagement (WE) and dependent variable – employee engagement (ER). Lastly, p_3 represents the direct relationship between independent variable - power distance (PD) and dependent variable – employee engagement (ER). While the product of $p_1.p_2$ is the indirect effect, the product of $p_1.p_2.p_3$ is the combined effect known as total effect of the independent variable on the dependent variable, including both direct and indirect (mediated) pathways; essentially, it calculates the overall impact of independent variable on dependent variable through both direct and mediated routes. The flowchart in Figure 20 depicts the steps to follow and the first step is to ask the question: is $(p_1.p_2)$ (the indirect effect) significant? The answer is yes as depicted on Table 6 below. The indirect effect is significant, and the T-statistics is 2.064**. The second step is to ask the question: is p_3 significant? Again, the answer is yes as depicted by the direct effect with T-statistics 8.896**. The last step is to ask the question: is $p_1.p_2.p_3$ positive? Again, the answer is yes as depicted by the Total Effect’s T-statistics 13.254**. The conclusion is that a complementary partial mediation exists, however, since the variance accounted for (VAF) which is calculated by dividing the indirect effect by total effect is only 10.50% (less than 20%), it can be concluded that there is no moderating effect of work engagement on the relationship between power distance and employee retention.

Table 6: PD->WE -> ER

WE mediates the relationship between PD and ER				
Type of effect	Effect	Path coefficient (Sample mean)	T statistics	Remark
Total effect	PD->ER	0.562	13.254**	Sig Total Effect
Indirect effect	PD->WE -> ER	0.059	2.064**	Sig Indirect Effect
Direct effect	PD->ER	0.503	8.896**	Sig Direct Effect
VAF	IE/TE	10.50%		
Conclusion	No moderating effect of WE on the relationship between PD and ER			

H1b - Work engagement (WE) mediates the relationship between the Hofstede's cultural dimension - uncertainty avoidance (UA) and employee retention (ER)

In the hypothesis above, p_1 represents the direct relationship between independent variable – uncertainty avoidance (UA) and mediating variable - work engagement (WE). On the other hand, p_2 represents the direct relationship between mediating variable - work engagement (WE) and dependent variable – employee engagement (ER). Lastly, p_3 represents the direct relationship between independent variable – uncertainty avoidance (UA) and dependent variable – employee engagement (ER). While the product of $p_1.p_2$ is the indirect effect, the product of $p_1.p_2.p_3$ is the combined effect known as total effect of the independent variable on the dependent variable. The flowchart in Figure 20 depicts the steps to follow and the first step is to ask the question: is $(p_1.p_2)$ (the indirect effect) significant? The answer is yes as depicted on Table 7 below. The indirect effect is significant, and the T-statistics is 7.009**. The second step is to ask the question: is p_3 significant? Again, the answer is yes as depicted by the direct effect with T-statistics 3.154**. The last step is to ask the question: is $p_1.p_2.p_3$ positive? Again, the answer is yes as depicted by the Total Effect’s T-statistics 6.122**. The conclusion is that a complementary partial mediation exists and since the variance accounted for (VAF) is equal to 46.33% ($\leq 20\% \text{ VAF} \leq 80\%$), it can be concluded that there exists a partial mediating effect of work engagement on the relationship between uncertainty avoidance and employee retention.

Table 7: UA->WE -> ER

WE mediates the relationship between UA and ER				
Type of effect	Effect	Path coefficient (Sample mean)	T statistics	Remark
Total effect	UA->ER	0.300	6.122**	Sig Total Effect
Indirect effect	UA->WE -> ER	0.139	7.009**	Sig Indirect Effect
Direct effect	UA->ER	0.161	3.154**	Sig Direct Effect
VAF	IE/TE	46.33%		
Conclusion	Moderately partial mediating effect of WE on the relationship between UA and ER			

H1c - Work engagement (WE) mediates the relationship between the Hofstede's cultural dimension - individualism/collectivism (IC) and employee retention (ER)

In the hypothesis above, p_1 represents the direct relationship between independent variable – individualism/collectivism (IC) and mediating variable - work engagement (WE). On the other hand, p_2 represents the direct relationship between mediating variable - work engagement (WE) and dependent variable – employee engagement (ER). Lastly, p_3 represents the direct relationship between independent variable – individualism/collectivism (IC) and dependent variable – employee engagement (ER). While the product of $p_1.p_2$ is the indirect effect, the product of $p_1.p_2.p_3$ is the combined effect known as total effect of the independent variable on the dependent variable. The flowchart in Figure 20 depicts the steps to follow and the first step is to ask the question: is $(p_1.p_2)$ (the indirect effect) significant? The answer is yes as depicted on Table 8 below. The indirect effect is significant, and the T-statistics is 2.066**. The second step

is to ask the question: is p_3 significant? Again, the answer is yes as depicted by the direct effect with T-statistics 10.514**. The last step is to ask the question: is $p_1.p_2.p_3$ positive? Again, the answer is yes as depicted by the Total Effect's T-statistics 16.615**. The conclusion is that a complementary partial mediation exists, however, since the variance accounted for (VAF) which is calculated by dividing the indirect effect by total effect is only 10.50% (less than 20%), it can be concluded that there is no moderating effect of work engagement on the relationship between individualism/collectivism and employee retention.

Table 8: IC->WE -> ER

WE mediates the relationship between IC and ER				
Type of effect	Effect	Path coefficient (Sample mean)	T statistics	Remark
Total effect	IC->ER	0.627	16.615**	Sig Total Effect
Indirect effect	IC->WE -> ER	0.063	2.066**	Sig Indirect Effect
Direct effect	IC->ER	0.564	10.514**	Sig Direct Effect
VAF	IE/TE	10.05%		
Conclusion	No moderating effect of WE on the relationship between IC and ER			

H1d - Work engagement (WE) mediates the relationship between the Hofstede's cultural dimension – masculinity/femininity (MF) and employee retention (ER)

In the hypothesis above, p_1 represents the direct relationship between independent variable – masculinity/femininity (MF) and mediating variable - work engagement (WE). On the other hand, p_2 represents the direct relationship between mediating variable - work engagement (WE) and dependent variable – employee engagement (ER). Lastly, p_3 represents the direct relationship between independent variable – masculinity/femininity (MF) and dependent variable – employee engagement (ER). While the product of $p_1.p_2$ is the indirect effect, the product of $p_1.p_2.p_3$ is the combined effect known as total effect. The flowchart in Figure 20 depicts the steps to follow and the first step is to ask the question: is $(p_1.p_2)$ (the indirect effect) significant? The answer is yes as depicted on Table 9 below. The indirect effect is significant, and the T-statistics is 3.037**. The second step is to ask the question: is p_3 significant? Again, the answer is yes as depicted by the direct effect with T-statistics 10.514**. The last step is to ask the question: is $p_1.p_2.p_3$ positive? Again, the answer is yes as depicted by the Total Effect's T-statistics 17.046**. The conclusion is that a complementary partial mediation exists, however, since the variance accounted for (VAF) which is calculated by dividing the indirect effect by total effect is only 14.04% (less than 20%), it can be concluded that there is no moderating effect of work engagement on the relationship between masculinity/femininity and employee retention.

Table 9: MF->WE -> ER

WE mediates the relationship between MF and ER				
Type of effect	Effect	Path coefficient (Sample mean)	T statistics	Remark
Total effect	MF->ER	0.584	17.046**	Sig Total Effect
Indirect effect	MF->WE -> ER	0.082	3.037**	Sig Indirect Effect
Direct effect	MF->ER	0.502	10.514**	Sig Direct Effect
VAF	IE/TE	14.04%		
Conclusion	No moderating effect of WE on the relationship between MF and ER			

H1e - Work engagement (WE) mediates the relationship between the Hofstede's cultural dimension – long/short term orientation (LS) and employee retention (ER)

In the hypothesis above, p_1 represents the direct relationship between independent variable – long/short term orientation (LS) and mediating variable - work engagement (WE). On the other hand, p_2 represents the direct relationship between mediating variable - work engagement (WE) and dependent variable – employee engagement (ER). Lastly, p_3 represents the direct relationship between independent variable – long/short term orientation (LS) and dependent variable – employee engagement (ER). While the product of $p_1.p_2$ is the indirect effect, the product of $p_1.p_2.p_3$ is the combined effect known as total effect. The flowchart in Figure 20 depicts the steps to follow and the first step is to ask the question: is $(p_1.p_2)$ (the indirect effect) significant? The answer is not as depicted on Table 10 below. The indirect effect is insignificant, and the T-statistics is 1.496. The second step is to ask the question: is p_3 significant? This time, the answer is yes as depicted by the direct effect with T-statistics 10.925**. The conclusion is that only direct relationship exists and therefore no mediation effect. In other words, there is no moderating effect of work engagement on the relationship between long/short term orientation and employee retention.

Table 10: LS->WE -> ER

WE mediates the relationship between LS and ER				
Type of effect	Effect	Path coefficient (Sample mean)	T statistics	Remark
Total effect	LS->ER	0.635	17.669**	Sig Total Effect
Indirect effect	LS->WE -> ER	0.047	1.496	Non-Sig Indirect Effect
Direct effect	LS->ER	0.588	10.925**	Sig Direct Effect
VAF	IE/TE	7.40%		
Conclusion	No moderating effect of WE on the relationship between LS and ER			

H1f - Work engagement (WE) mediates the relationship between the Hofstede's cultural dimension – indulgence/restraint (IR) and employee retention (ER)

In the hypothesis above, p_1 represents the direct relationship between independent variable – indulgence/restraint (IR) and mediating variable - work engagement (WE). On the other hand, p_2

represents the direct relationship between mediating variable - work engagement (WE) and dependent variable – employee engagement (ER). Lastly, p_3 represents the direct relationship between independent variable – indulgence/restraint (IR) and dependent variable – employee engagement (ER). While the product of $p_1.p_2$ is the indirect effect, the product of $p_1.p_2.p_3$ is the combined effect known as total effect of the independent variable on the dependent variable. The flowchart in Figure 20 depicts the steps to follow and the first step is to ask the question: is $(p_1.p_2)$ (the indirect effect) significant? The answer is yes as depicted on Table 11 below. The indirect effect is significant, and the T-statistics is 4.347**. The second step is to ask the question: is p_3 significant? Again, the answer is yes as depicted by the direct effect with T-statistics 7.079**. The last step is to ask the question: is $p_1.p_2.p_3$ positive? Again, the answer is yes as depicted by the Total Effect’s T-statistics 10.945**. The conclusion is that a complementary partial mediation exists and since the variance accounted for (VAF) is equal to 20.38% ($\leq 20\% \text{ VAF} \leq 80\%$), it can be concluded that there exists a partial mediating effect of work engagement on the relationship between indulgence/restraint and employee retention.

Table 11: IR->WE -> ER

WE mediates the relationship between IR and ER				
Type of effect	Effect	Path coefficient (Sample mean)	T statistics	Remark
Total effect	IR->ER	0.471	10.945**	Sig Total Effect
Indirect effect	IR->WE -> ER	0.096	4.347**	Sig Indirect Effect
Direct effect	IR->ER	0.375	7.097**	Sig Direct Effect
VAF	IE/TE	20.38%		
Conclusion	Partial mediating effect of WE on the relationship between IR and ER			

Table 12 below depicts the summary of the results of the mediation analysis. The results show that work engagement partially mediates the relationships between two of the Hofstede’s cultural dimensions (uncertainty avoidance and indulgence/restraint) and employee retention, however, no mediating effect of work engagement on the relationships between the other four Hofstede’s cultural dimensions (power distance, individualism/collectivism, Masculinity/Femininity and Long/Short term orientation) and employee retention. While the findings of the mediation analysis in this study corroborate that of other researchers, they did not corroborate findings of others. For instance, While Chan (2019), Arokiasamy (2021), Arwab et al. (2023), Blaique et al. (2023), Aggarwal et al. (2022) found full mediation role of work engagement, Yucel et al., 2023; Kamselem et al., 2022; Abdullahi et al., 2022 found partial mediating role of work engagement as a mediating variable.

Table 12: Mediation Analysis

S/N	Hypotheses	Relationship	Indirect Effect	T-value	VAF	Conclusion
H4a	Work engagement mediates the relationship between Hofstede's cultural dimension of Power distance and employee retention	PD->WE -> ER	0.059	2.064**	10.50%	No mediation
H4b	Work engagement mediates the relationship between Hofstede's cultural dimension of Uncertainty avoidance and employee retention	UA->WE -> ER	0.139	7.009**	46.33%	Partial mediation
H4c	Work engagement mediates the relationship between Hofstede's cultural dimension of Individualism/Collectivism and employee retention	IC->WE -> ER	0.063	2.066**	10.05%	No mediation

H4d	Work engagement mediates the relationship between Hofstede's cultural dimension of Masculinity/Femininity and employee retention	MF->WE ER ->	0.082	3.037**	14.04%	No mediation
H4e	Work engagement mediates the relationship between Hofstede's cultural dimension of Long/Short term orientation and employee retention	LS->WE ER ->	0.047	1.496	7.40%	No mediation
H4f	Work engagement mediates the relationship between Hofstede's cultural dimension of Indulgence/Restraint and employee retention	IR->WE ER ->	0.096	4.347**	20.38%	Partial mediation

5.1 Practical Implications

The governing bodies in the Nigerian universities would be able to understand how academic staff perceives the existing organizational culture and work engagement in their various institutions and thus help make informed decision. The findings show strong relationship between work engagement and employee retention and this should trigger actions on policies and strategies that foster staff engagement within the university working environment including

aligning individual roles with the university's mission and values while encouraging open communication, offering chances for professional growth, acknowledging accomplishments, encouraging teamwork, encouraging work-life balance, and guaranteeing a feeling of purpose and belonging within the organization. The findings of this study would also benefit the academic staff of the universities. A conducive organizational culture and engaged workforce in the universities would allow the academic staff to focus on what is important – the students. It would also allow them to focus on their research and how to bring innovative learning environment to the students. The current situation is already bad for the students due to the incessant strikes embarked on by the academic staff. Due to these strikes, many students are unable to graduate at the expected program time and this has had a significant detrimental effect on their future. The government, education agencies and policy makers in the sector would also greatly benefit from the findings of this study from the areas of decision making and research activities. Currently, the country is battling with brain drain in the education sector as academic staff in various higher institutions in the country seek greener pasture abroad. This has led to the inability of these institutions to retain and transfer knowledge. Low level of employee retention in these institutions has had significant negative effect on the research being carried out for the purpose of national interest. The national institute of research has had a low input over the years in terms of national development due to shortage of personnel. These researchers have chosen to pursue their trade elsewhere where sustainable organization culture, work engagement and efforts to retain staff are of important priority.

5.2 Conclusions

In conclusions, hypotheses H1b which states that work engagement mediates the relationship between the Hofstede's cultural dimension of uncertainty avoidance and employee retention and H1f which states that work engagement mediates the relationship between Hofstede's cultural dimension of Indulgence/Restraint and employee retention were statistically accepted albeit with partial mediation relationships. The conclusion was reached having met the rules of thumb for the indirect effect, direct effect and total effect which are all significant. There was no mediating role of work engagement in the relationships between the Hofstede's cultural dimension of power distance and employee retention (H1a), Hofstede's cultural dimension of Individualism/Collectivism and employee retention (H1c), Hofstede's cultural dimension of Masculinity/Femininity (H1d) and Hofstede's cultural dimension of Long/Short term orientation and employee retention (H1e). While the findings agree with the results of previous researchers, they did not agree with others. Alhajaj et al. (2024) and Chopra et al. (2024) in their studies proved that work engagement acts as a mediator fully and partially, respectively. Kissi et al. (2024) showed that work engagement plays a mediating role in the connection between supervisory support and the intention to turnover.

Data Availability Statement (DAS)

Data is available for verification and validation on request. Please contact the first author.

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