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**THE EFFECT OF WORK ENGAGEMENT, WORK
ENVIRONMENT, ORGANIZATIONAL COMMITMENT ON JOB
SATISFACTION AMONG UNIVERSITY LECTURERS IN
NORTHERN NIGERIA.**

OLUWASEGUN ABAYOMI SAMSON BANKOLE



UUM
Universiti Utara Malaysia

**MASTER OF SCIENCES (MANAGEMENT)
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December 2024**

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December 2024**



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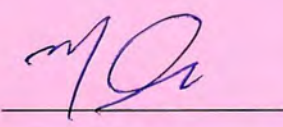
**THE EFFECT OF WORK ENGAGEMENT, WORK ENVIRONMENT AND
ORGANIZATIONAL COMMITMENT ON JOB SATISFACTION AMONG
UNIVERSITY LECTURERS IN NORTHERN NIGERIA**

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ABSTRACT

This research examines the relationships among work engagement, work environment, organizational commitment, and job satisfaction among university lecturers in Northern Nigeria. This study emphasizes the importance of these constructs in influencing employee behaviour and improving organizational effectiveness. A non-probability convenience sampling method was utilized to collect data from various lecturers at multiple regional universities, ensuring a thorough representation of the academic workforce. The sampling frame was constructed using updated lists sourced from the Human Resources departments of selected universities, targeting lecturers with at least one year of employment. The findings indicate that organizational commitment significantly mediates work engagement and job satisfaction. This implies that enhancing commitment may result in increased job satisfaction among lecturers. The research highlights the significance of a supportive work environment as crucial for enhancing employee engagement and satisfaction. Engaged employees cultivate a robust sense of commitment and affiliation with their work, improving their overall job satisfaction. This study provides significant insights into employee engagement and satisfaction, specifically in Nigeria's higher education context. This study provides practical implications for university administrators and policymakers, emphasizing the importance of fostering an engaging work environment to promote organizational commitment and improve job satisfaction among lecturers. Understanding the dynamics among these constructs enables institutions to implement strategies that promote a positive workplace culture, resulting in a more committed and satisfied academic workforce.

Keywords: Organizational Effectiveness, Work Engagement, Work Environment, Organizational Commitment, Job Satisfaction

ABSTRAK

Kajian ini mengkaji hubungan antara penglibatan kerja, persekitaran kerja, komitmen organisasi, dan kepuasan kerja di kalangan pensyarah universiti di utara Nigeria. Kajian ini menekankan kepentingan konstruk-konstruk ini dalam mempengaruhi tingkah laku pekerja dan meningkatkan keberkesanan organisasi. Kaedah persampelan mudah bukan kebarangkalian digunakan untuk mengumpul data daripada pensyarah-pensyarah di beberapa universiti di utara Nigeria bagi memastikan perwakilan menyeluruh tenaga kerja akademik. Rangka persampelan telah dibina menggunakan senarai terkini yang diperoleh daripada Jabatan Sumber Manusia di universiti-universiti terpilih, yang menyasarkan pensyarah yang bekerja sekurang-kurangnya satu tahun di organisasi tersebut. Hasil kajian menunjukkan bahawa komitmen organisasi secara signifikan menjadi pengantara di antara penglibatan kerja dan kepuasan kerja. Ini menunjukkan bahawa peningkatan komitmen boleh menyumbang kepada peningkatan kepuasan kerja di kalangan pensyarah. Kajian ini menekankan kepentingan persekitaran kerja dalam meningkatkan penglibatan kerja dan kepuasan pekerja. Pekerja yang rasa terlibat dengan pekerjaan mereka memupuk komitmen dan pertalian yang teguh terhadap kerja mereka, lalu meningkatkan kepuasan kerja mereka secara keseluruhan. Selain itu, kajian ini juga memberi pandangan yang signifikan tentang penglibatan kerja dan kepuasan pekerja, khususnya dalam konteks pendidikan tinggi di Nigeria. Kajian ini memberi implikasi praktikal kepada pentadbir universiti dan penggubal dasar, menekankan kepentingan memupuk persekitaran kerja yang menarik untuk menggalakkan komitmen organisasi, dan meningkatkan kepuasan kerja di kalangan pensyarah. Memahami dinamik di antara konstruk-konstruk ini membolehkan institusi melaksanakan strategi yang menggalakkan budaya tempat kerja yang positif, lantas menghasilkan tenaga kerja akademik yang lebih komited dan memuaskan.

Kata kunci: Keberkesanan Organisasi, Penglibatan Kerja, Persekitaran Kerja, Komitmen Organisasi, Kepuasan Kerja

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GLOSSARY OF TERMS



LIST OF ABBREVIATIONS

COR	Conservation of Resources
COVID-19	Coronavirus Disease 2019
EU	European Union
GDP	Gross Domestic Product
JDI	Job Descriptive Index
JES	Job Engagement Scale
JSS	Job Satisfaction Survey
NUC	Nigerian University Commission
OCB	Organizational Citizenship Behaviors
OCQ	Organizational Commitment Questionnaire
PCPE	Psychological Conditions of Personal Engagement
PsyCap	Psychological Capital
SDT	Self-Determination Theory
SPSS	Statistical Package for the Social Sciences
TCM	Three-Component Model
US	United States
UWES	Utrecht Work Engagement Scale

CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Work engagement, work environment, and organizational commitment have attracted substantial attention owing to their critical role in molding employee behavior, performance, and overall organizational effectiveness. Understanding the subtle relationships among these components is vital for building a favorable work environment, boosting employee happiness, and promoting organizational success.

Work engagement is a multidimensional notion reflecting workers' cognitive, emotional, and behavioral commitment to their employment. Building upon the pioneering work of Kahn (1990), work engagement is defined by three main dimensions: energy, devotion, and absorption. Vigour denotes high energy levels and mental resilience; devotion is a strong feeling of excitement and importance in one's profession.

At the same time, absorption implies a strong interest and focus in labour operations. Engaged workers demonstrate a pleasant, gratifying, and robust state of mind, which boosts their performance, creativity, and general well-being. Work engagement stretches back to the early 20th century when academics examined elements contributing to employee motivation and happiness. Frederick Herzberg's two-factor theory, established in the 1950s, separated between hygienic elements (e.g., working environment, wage) and motivators (e.g., recognition, accomplishment), underlining the significance of intrinsic variables in driving employee engagement. However, it was not until the late 20th century that researchers like William Kahn (1990) started explicitly conceiving work engagement as a unique category, concentrating on

the psychological state of workers defined by energy, participation, and effectiveness in their professional duties.

Work environment can be one of the elements that influence job satisfaction. The work environment encompasses various physical, social, psychological, and cultural factors that shape employees' experiences within organizations. These factors include organizational culture, leadership styles, team dynamics, job design, work-life balance initiatives, communication channels, and support systems. A positive work environment fosters employees' sense of belonging, trust, and psychological safety, promoting engagement, satisfaction, and performance.

Conversely, a hostile or toxic work environment characterized by high job demands, poor leadership, interpersonal conflicts, and lack of support can lead to stress, burnout, and disengagement. Early industrial and organizational psychology studies, such as Elton Mayo's Hawthorne experiments in the 1920s and 1930s, highlighted the impact of social factors, such as group dynamics and leadership, on employee productivity and satisfaction. Subsequent research in the mid-20th century focused on understanding the effects of job design, organizational culture, and leadership styles on employee well-being and performance. With the rise of globalization, technological innovation, and the knowledge economy in recent decades, scholars have increasingly recognized the importance of creating supportive, flexible, and inclusive work environments that promote employee engagement, creativity, and adaptability.

On the other hand, organizational commitment shows staff members' commitment to their company's aims, values, and objectives (Soomro et al., 2023). Higher levels of discretionary

effort, decreased inclinations to leave, and greater work satisfaction correlate with strong organizational commitment. Since the 1960s, organizational commitment has been a significant study area in human resource management and organizational behavior.

Early research by experts such as Meyer and Allen (1991) and Mowday, Steers, and Porter (1979) laid the groundwork for establishing organizational commitment theory. Meyer and Allen's three-component model, introduced in the early 1990s, established a framework for understanding the psychological links that workers form with their firms. It differentiated between affective (emotional connection and loyalty to the organization), continuation (perceived costs of quitting the group), and normative commitment (a feeling of responsibility to stay with the organization). Over the years, academics have investigated the antecedents and effects of organizational commitment, such as leadership, organizational culture, work satisfaction, and turnover intentions, emphasizing its importance for employee retention, performance, and organizational success.

Job satisfaction, a fundamental part of organizational psychology and human resource management, has attracted substantial attention owing to its profound influence on employee well-being, performance, and organizational results. It refers to the subjective appraisal of one's employment experiences, comprising emotions of happiness, fulfilment, and general satisfaction with different work areas. Employment satisfaction represents how employees regard their employment as satisfying their needs, goals, and ambitions. Besides, job satisfaction is a multifaceted concept comprising numerous elements, including work, interpersonal connections, career growth possibilities, remuneration, and company culture (Belias et al., 2015).

Early in the 20th century, Frederick Herzberg, Abraham Maslow, and Douglas McGregor, among others, conducted groundbreaking studies on work happiness. Herzberg's 1959 two-factor theory distinguished between motivators (like success and recognition) and hygiene factors (like pay and working circumstances), implying that distinct elements influence job contentment and discontent. McGregor's Theory X and Theory Y (1960) and Maslow's Hierarchy of Needs (1943) provide light on the psychological elements of work satisfaction.

A study by Flynn (2023) on job satisfaction across 34 countries discovered that the top 10 countries by job satisfaction are India, Mexico, Turkey, Norway, the United States of America (USA), Denmark, Spain, Argentina, Brazil, and China. Meanwhile, Japan, Portugal, France, Hong Kong, Singapore, Hungary, Sweden, New Zealand, Australia, and Italy are the top 10 countries regarding job dissatisfaction. Even though job satisfaction can be measured worldwide, obtaining accurate results with various factors such as economic aspects and freedom index cannot be easy.

Obtaining precise statistics on job satisfaction in Nigeria can be challenging due to limited comprehensive national surveys specifically focused on the job satisfaction aspect. However, various studies provide some insights into the job satisfaction landscape in Nigeria. Table 1.1 below shows several studies on job satisfaction in Nigeria.

Table 0.1
Studies on job satisfaction in Nigeria

Relationship among job satisfaction, organizational commitment, and employees' turnover at Unilever Corporation in Nigeria	Significant negative relationship of job satisfaction and organizational commitment with employee turnover intentions.	(Chiedu & Choi, 2022)
Work life balance and job satisfaction of employees in Murtala Muhammed and Victor Attah International Airports in Nigeria	No job satisfaction – which influence job performance, work stress effects the home and family life quality of employees.	(Akinlade & Nwaodike, 2021)
Study	Results	Source(s)
Job satisfaction among health professionals in a federal tertiary hospital	Low level of job satisfaction – due to financial remuneration, working conditions, infrastructure, and tools, learning and training opportunities, sponsorship, and leadership style.	(Lasebikan et al., 2020)
Job satisfaction among resident doctors in selected teaching hospitals in Southern Nigeria	Above – average satisfaction (compensation and creativity), low satisfaction (recognition, supervision and human relations, and responsibility).	(Bello, Adewole, & Afolabi, 2020)
The relationship between job satisfaction, turnover intentions, and performance of Nigerian polytechnic lecturers with doctorate degrees	Low level of job satisfaction.	(Otache & Inekwe, 2022)

A comprehensive understanding of work engagement, work environment, and organizational commitment is crucial for gaining better insights into the factors influencing job satisfaction, ultimately enhancing employees' well-being and work performance. Moreover, it is crucial for cultivating a constructive workplace atmosphere and propelling organizational achievement in the current competitive business landscape. This investigation explores the impacts of work engagement, work environment, and organizational commitment among university lecturers in Northern Nigeria.

1.2 Problem Statement

Job satisfaction problems involve a variety of obstacles and concerns that might impact employees' overall comfort and pleasure with their professions. According to Collins (2022), although the labor market continues to flourish, millions of people are still abandoning their employment each month owing to workers' disengagement and discontent. These issues can arise from various sources, including organizational, interpersonal, and individual factors such as compensation and benefits, workload and job demands (Jermstittiparsert et al., 2021), lack of recognition and rewards (Hee et al., 2018), limited opportunities and growth development, poor leadership and management (Belias et al., 2015), inadequate work-life balance (Kelly et al., 2020), and lack of job security.

Workers' disengagement and discontent may harm the company or organization. Businesses with engaged workers tend to have better earnings. In contrast, employees who are unengaged with the firm incur a significant loss in productivity. Collins (2022) claimed that organizations with engaged workers had 23% greater income. In contrast, unengaged employees with the company cost the globe \$7.8 trillion in lost productivity, equivalent to 11% of global GDP. Besides, work unhappiness might impair job performance. Employees who are unsatisfied with their occupations are likely to perform poorly. Job discontent may lead to reduced productivity, worse quality of work, and increased rates of errors or blunders.

Moreover, dissatisfied workers contribute to higher absenteeism and turnover, where they may be more prone to call in sick, take frequent leaves of absence, or finally quit the firm in pursuit of better possibilities. Furthermore, work unhappiness might significantly affect corporate culture. Disengaged and dissatisfied individuals may disseminate negativity and unhappiness

to their colleagues, producing a poisonous work environment. This may damage cooperation, collaboration, and morale across the business.

In Nigeria, several issues led to job dissatisfaction. First, most Nigerian workers are unsatisfied with their jobs due to low wages and salary disparities. Income inequality is prevalent, with disparities between industries, sectors, and regions. Workers in specific sectors, such as the public sector, may feel particularly dissatisfied with their salaries compared to those in the private sector or industries with higher earning potential. Second, Nigeria faces significant challenges related to unemployment and underemployment, particularly among young people. Many graduates struggle to find suitable employment opportunities that match their qualifications and aspirations, leading to frustration and dissatisfaction among job seekers.

Third, poor working conditions, including inadequate infrastructure, lack of basic amenities, and safety hazards, are common issues in many workplaces in Nigeria. Employees may feel dissatisfied with their jobs due to concerns about workplace safety, discomfort, and lack of basic facilities. Fourth, corruption and nepotism are prevalent issues in Nigerian society and can affect job satisfaction. Employees may feel disillusioned and demotivated when they perceive that promotions, rewards, and opportunities are based on personal connections rather than merit or performance.

Meanwhile, job satisfaction among lecturers in Nigeria can be influenced by various factors in the country's academic environment and higher education sector. Some issues faced by lecturers in Nigeria are poor remuneration, delayed and unpaid salaries (Chigbu et al., 2021), lack of career opportunities and progression (Okolie et al., 2020), heavy workloads and administrative burden, inadequate funding and resources, and work-life balance issues.

Addressing these job satisfaction issues in Nigeria requires a multifaceted approach involving government intervention, organizational reforms, and efforts to promote social and economic development. Thus, this study will focus on the effects of work engagement, the work environment, and organizational commitment, which can help the authorities improve the working conditions in Nigeria.

1.3 Research Objectives

This study explores the influence of work engagements, work environment, and organizational commitment on job satisfaction among university professors in Northern Nigeria.

- i. To investigate the significant relationship between work management and job satisfaction.
- ii. To examine the significant relationship between work environment and job satisfaction.
- iii. To investigate the significant relationship between organizational commitment and job satisfaction.
- iv. To examine the significant relationship between work engagement and organizational commitment.
- v. To investigate the significant relationship between work environment and organizational commitment.
- vi. To examine the significant relationship between organizational commitment significantly mediating work engagement and job satisfaction.
- vii. To investigate a significant mediating role of organizational commitment in the relationship between work environment and job satisfaction.

1.4 Research Questions

The inquiries posed in this study are:

- i. Is there any significant relationship between work management and job satisfaction?
- ii. Is there any significant relationship between work environment and job satisfaction?
- iii. Do organizational commitment and job satisfaction have a significant relationship?
- iv. Is there a significant relationship between work engagement and organizational commitment?
- v. Is there a significant relationship exists between work environment and organizational commitment?
- vi. Does organizational commitment significantly mediate the relationship between work engagement and job satisfaction?
- vii. Is there a significant mediating role of organizational commitment in the relationship between work environment and job satisfaction?

1.5 Scope of the Study

This study investigates the impact of work engagement, the workplace environment, and organizational commitment on job satisfaction among university lecturers in Northern Nigeria. This study's scope will be restricted to universities in Northern Nigeria's commercial hub. The study will focus on the satisfaction of Nigeria's Federal and state governments. The choice of universities within northern universities was because some universities have been ranked among the top 10 universities in Nigeria by the Nigerian University Commission (NUC) for decades (Chidi & Odetunde, 2021).

1.6 Significance of the Study

This research holds relevance and potential advantages for employees, the government, and prospective researchers in human resources management, particularly in understanding employee commitment. The potential benefits include:

Theoretically, this study broadens the literature on the discussed subject, thereby making a valuable contribution to the existing knowledge on job satisfaction, both in a general sense and within the specific context of the northern region. By delving into the dimensions of job satisfaction through the three independent variables highlighted by Gupta, Gupta, and Wadhwa (2020), this study contributes to the current literature on the issue. It enriches readers' insight.

The results will assist education policymakers and the government understand that job satisfaction mirrors the perceived level of organizational commitment. Moreover, workplace engagement is frequently influenced by factors like employee well-being, goals, fair treatment, supervisor support, leadership, compensation, opportunities for promotion, communication, and the work environment. By paying sufficient attention to these aspects through enhanced policy statements and implementation, there is the potential for an increase in employee commitment and overall success.

The study allows employees to express their perceived levels of work engagements, work environments, organizational commitment, and the resulting influence on job satisfaction to their employers. A positive response from management could enhance work engagement, work environment, and organizational commitment, ultimately resulting in improved satisfaction.

1.7 Definition of Key Terms

In the context of this study, the terms are elucidated as follows:

Job Satisfaction: This term denotes the degree of satisfaction an individual experiences due to occupation. Employees are anticipated to experience higher job satisfaction when they find their work pleasurable and fulfilling (Akaarir & Asarkaya, 2021).

Work engagements: A pleasing, gratifying, and work-related mental state with three components: vitality, devotion, and absorption (Gathua, 2019).

Work environments: A teacher's work environment is the framework in which they complete their obligations within a school organization, influencing their job execution (Yusof, 2021).

Organizational Commitment: Organizational commitment is the extent to which an individual identifies with and is loyal to a specific organization. It is distinguished by a profound conviction in and adoption of the organization's objectives and principles, a willingness to invest in significant work, and a strong inclination to maintain membership (Sarhan, Harb, Shrafat & Alhusban, 2020).

1.8 Summary

The initial chapter includes the following components: background research, problem statement, research objectives, research questions, the scope of the study, significance, and definitions of terms.

CHAPTER TWO

LITERATURE REVIEW

2.1 Chapter Overview

This chapter reviewed past research to gain better insights into the subjects related to job satisfaction. This section will cover (1) job satisfaction, (2) work engagement, (3) work environment, (4) organizational commitment, (5) determinants of job satisfaction, and (6) theory of the study. Based on the literature review, research hypotheses will be developed to provide testable predictions or explanations regarding the relationship between variables in this study.

2.2 Job Satisfaction

An essential component that captures workers' individualized assessments of their work engagements and experiences is job satisfaction. It is a key determinant of both organizational health and employee well-being. A multifaceted concept, job satisfaction encompasses several aspects of experiences and work situations. Hackman and Oldham's Job Characteristics Model highlights important aspects, including work importance, autonomy, feedback, and skill variation (Taylor, 2015). Other frameworks, such as the Job Characteristics Theory and the Dispositional Approach, emphasize different facets, such as intrinsic and extrinsic factors, organizational justice, and interpersonal relationships (Pujol-Cols & Dabos, 2020), (El-Farr, 2023).

According to Judge, Zhang, and Glerum (2020), numerous factors influence job satisfaction, including individual characteristics, job characteristics, and organizational factors. Individual

factors such as personality traits, values, and demographic variables can shape one's perception of job satisfaction (Ashraf, 2020), (Maan et al., 2020). Bayona, Caballer, and Peiró (2020) stated that work characteristics, including task variety, autonomy, and feedback, are crucial in determining employees' satisfaction levels. Additionally, studies by Nazarian et al. (2021) and Sari et al. (2021) note that organizational factors such as culture, leadership style, and organizational and work-life balance policy significantly influence job satisfaction.

The concept of job satisfaction carries significant consequences for both individuals and organizations alike. Elevated job satisfaction correlates with enhanced job performance, more substantial organizational commitment, and improved employee retention (Bashir & Gani, 2020), (Cherif, 2020). Conversely, a lack of job satisfaction may result in increased absenteeism, higher turnover rates, and diminished organizational citizenship behaviors (Erdal & Altindag, 2020). Furthermore, job satisfaction significantly impacts various personal outcomes, encompassing mental health, physical well-being, and overall life satisfaction (Bialowolski & Weziak-Bialowolska, 2021).

Assessing job satisfaction is important to scholarly inquiry and organizational objectives. Instruments frequently employed in research encompass the Job Descriptive Index (JDI), the Minnesota Satisfaction Questionnaire (MSQ), and the Job Satisfaction Survey (JSS) (Sinval & Marôco, 2020), (Adamopoulos, 2022). These instruments evaluate multiple dimensions of job satisfaction, encompassing contentment with remuneration, oversight, advancement prospects, and colleagues. Furthermore, single-item and global measures offer streamlined methodologies for evaluating comprehensive job satisfaction.

Many theoretical frameworks support examining job satisfaction, providing valuable insights into its determinants and repercussions. Herzberg's Two-Factor Theory delineates the distinction between hygiene factors, such as working conditions and salary, and motivators, including recognition and achievement, as pivotal elements influencing job satisfaction and dissatisfaction (Bhatt, Chitranshi, & Mehta, 2020; Ali & Anwar, 2021; Kitsios & Kamariotou, 2021). In the interim, Equity Theory suggests that individuals assess their contributions and results concerning those of others, thereby affecting their sense of fairness and overall satisfaction (To & Huang, 2022). Furthermore, Social Exchange Theory underscores the importance of reciprocal dynamics within relationships as a key factor influencing job satisfaction levels (Meira & Hancer, 2021).

A study by Ali et al. (2021) discovered a weak level of job satisfaction among teachers of special education in Malaysia, especially from the financial aspect. Meanwhile, Mohamed et al. (2021) found that non-academicians have greater job satisfaction levels than academicians in Malaysia due to burnout, work-client issues, and psychological distress faced by academicians. Toropova, Myrberg, and Johansson (2020) found that female teachers have higher job satisfaction levels than male teachers. Besides, in their study on job satisfaction among healthcare staff, Cunningham, Westover, and Harvey (2022) discovered that overall job satisfaction was lowest among environmental hygiene staff and nurses, while health service managers and generalist medical practitioners had the highest job satisfaction level.

Thus, job satisfaction is a multifaceted construct influenced by individual, job-related, and organizational factors. Understanding its dimensions, antecedents, consequences, and measurement techniques is essential for promoting employee well-being and organizational effectiveness. Organizations can cultivate a satisfying work environment conducive to

employee engagement, retention, and performance by addressing key determinants and implementing appropriate interventions.

2.3 Work Engagement

Work engagement denotes the degree of enthusiasm, commitment, and active participation an individual exhibits concerning their professional responsibilities (Didit & Nikmah, 2020). This construct is relevant as it encapsulates employees' psychological states and behaviors concerning their professional roles. Work engagement is frequently understood through the lens of the Job Demands-Resources (JD-R) Model, which asserts that job resources (such as autonomy and social support) and job demands (including workload and role ambiguity) play a significant role in shaping employee engagement levels (Radic et al., 2020; Koroglu & Ozmen, 2022; Ong & Johnson, 2023). Furthermore, the Conservation of Resources (COR) Theory underscores the significance of resource gain and loss cycles in influencing engagement dynamics (Sullivan & Al Ariss, 2022). In the interim, Self-Determination Theory (SDT) underscores the significance of intrinsic motivation, autonomy, and competence in cultivating work engagement (Chua & Ayoko, 2021).

A range of measurement instruments has been created to evaluate work engagement, including the Utrecht Work Engagement Scale (UWES), which stands out as one of the most commonly employed tools (Chi, Tang, & Tang, 2023). The UWES encompasses three dimensions: vigour, dedication, and absorption, which reflect employees' energy levels, engagement, and focus in their work activities. Additional instruments comprise the Job Engagement Scale (JES) (Gillet et al., 2020), the Employee Engagement Scale (EES) (So et al., 2022), and the Psychological Conditions of Personal Engagement (PCPE) (Kahn, 1990).

One reason for the widespread appeal of work engagement is its exceptional nature. A multitude of elements shapes work engagement, encompassing personal attributes, job-related features, and organizational dynamics. The individual antecedents, including personality traits such as conscientiousness and extraversion, self-efficacy, and psychological capital (PsyCap), significantly shape employees' likelihood of engagement (Gota, 2017; Albrecht & Marty, 2020). The attributes of a job, including the diversity of tasks, the degree of autonomy, the provision of feedback, and the presence of social support, play a vital role in enhancing levels of engagement (Han, Sung, & Suh, 2021). Furthermore, elements within the organization, including the caliber of leadership, the prevailing culture, and the structure of job roles, play a crucial role in shaping the engagement experiences of employees (Nguyen & Pham, 2020), (Ababneh, 2021).

Work engagement correlates with a multitude of beneficial outcomes for both individuals and organizations. Studies consistently indicate that employees who are actively engaged display enhanced job performance, creativity, and innovation (Gull, Khan, & Sheikh, 2020), (Rahmadani et al., 2020), (Liu et al., 2022). Austin et al. (2020) assert that there is a correlation between job engagement and a decrease in absenteeism, intentions to leave, and occurrences of incidents in the workplace. Employees who are actively engaged tend to experience heightened job satisfaction, a more substantial commitment to the organization, and improved overall well-being. This engagement fosters a positive organizational climate and significantly enhances employee retention (DiPietro, Moreo, & Cain, 2020).

A study by Gómez-Salgado et al. (2021) on work engagement among health professionals during the COVID-19 pandemic showed a high work engagement level among healthcare staff. They also discovered that psychological distress can significantly lower the work engagement

level. Meanwhile, Szilvassy and Širok (2022) found high work engagement among health care staff in Slovenia. Adisa, Ogbonnaya, and Adekoya (2021) discovered poor work engagement among British workers during the COVID-19 pandemic due to remote working. Mazzeti et al. (2023) study on work engagement analysis using the Job-Demand-Resources Model shows a low relationship between work engagement with turnover, volunteerism, and educators.

Therefore, work engagement represents a vital inquiry within organizational psychology, reflecting employees' positive psychological states and behaviors toward their work roles. Understanding the antecedents, consequences, and interventions related to work engagement is essential for organizations seeking to enhance employee motivation, performance, and well-being. By fostering a culture of engagement and implementing evidence-based interventions, organizations can create a thriving work environment conducive to employee satisfaction, retention, and organizational success.

2.4 Work Environment

The work environment significantly influences the well-being and performance of employees in various industries and sectors. Extensive research has been conducted over the years to comprehend the multifaceted dynamics of work environments and their impact on employees. There are numerous work environments, including physical, social, and psychological ones (Klitzman & Stellman, 1989; Zapf, Knorz, & Kulla, 1996; Briner, 2000).

The physical work environment encompasses workspace layout, lighting, temperature, noise levels, and ergonomic design (Al Amin & Chakraborty, 2021). A well-designed physical environment can significantly impact employee comfort, health, and productivity (Hyginus, 2021), (Ogbonnia, 2021). A study by Adiga (n. d.) and Park et al. (2021) found that optimizing

lighting conditions and providing ergonomic furniture reduced eyestrain and musculoskeletal discomfort among employees, ultimately enhancing their performance and satisfaction. Moreover, the importance of indoor air quality has gained attention in recent years. Poor air quality due to inadequate ventilation or pollutant exposure can lead to health issues and reduced employee cognitive function (Wargocki, 2016). Therefore, maintaining optimal indoor air quality is critical for promoting employee well-being and productivity (Al Horr et al. 2016). Meanwhile, the social work environment encompasses interpersonal relationships, organizational culture, leadership styles, and teamwork dynamics (Zapf, Knorz, & Kulla, 1996). A positive social environment characterized by trust, collaboration, and support fosters employee engagement and satisfaction (Karsim et al., 2023). According to Kawachi and Berkman (2001), strong social connections at work can buffer against stress and promote mental health. On the other hand, toxic work cultures marked by conflict, discrimination, or harassment have detrimental effects on employee well-being and performance (Rasool et al., 2021). Such hostile environments increase turnover rates and impair organizational effectiveness and reputation (Iqbal, Asghar, & Asghar, 2022). Consequently, fostering a supportive and inclusive social environment is essential for promoting employee morale and organizational success (Sepriandy et al., 2023).

As for psychological work environments, factors influencing employee perceptions, attitudes, and emotions related to their work (Jones & James, 1979), (Briner, 2000). Job autonomy, task significance, feedback mechanisms, and perceived organizational support are key elements shaping the psychological work environment (Kurtessis et al., 2017). Studies have shown that employees who perceive their work as meaningful and have opportunities for skill development and advancement are more engaged and motivated (Fletcher, 2019). In addition, social support systems and recognition from supervisors and peers enhance employees' sense of belonging

and commitment to the organization (Rousseau & Aubé, 2010), (Simosi, 2012). On the contrary, lacking support and recognition can lead to feelings of alienation and disengagement (Zamin Abbas et al., 2014).

Achieving a healthy work-life balance has become increasingly important in today's fast-paced work environments (Garg & Rani, 2014). Long working hours, excessive workload, and blurred boundaries between work and personal life can lead to burnout and decreased job satisfaction (Boamah et al., 2022). Organizations that promote flexible work environments, such as telecommuting or compressed workweeks, enable employees to manage their work and personal responsibilities better, leading to higher levels of well-being and productivity (De Ruiter & Peters, 2022). Besides, technological advancements have transformed work environments, allowing greater flexibility and remote collaboration (Haque, 2023). While remote work offers benefits such as increased autonomy and reduced commuting stress, it also presents challenges related to isolation, communication barriers, and work-life integration (Vartiainen, 2021).

Herwanto and Suzianti (2020) discovered a poor working environment in the SME manufacturing industry in Indonesia, where working conditions do not meet the standards. Meanwhile, a study by Scheele, Zhen, and Leschke (2023) on the working environment of food delivery riders in six European Union (EU) countries shows that riders have poor working conditions due to poor resources (normative and instrumental resources). Badrianto and Ekhsan (2020) discovered that a good working environment in automotive manufacturing positively affects its worker's performance.

2.5 Organizational Commitment

Organizational commitment is a critical construct in organizational behaviour, reflecting how employees identify with and are dedicated to their organization. According to Meyer and Allen (2001), it is often thought of as a psychological condition with three distinct components: emotional, continuance, and normative commitment. Meyer and Allen (2001) define affective commitment as the emotional bond and sense of belonging that workers have to the company. Normative commitment refers to workers' feeling of duty or moral responsibility to stay with the company. In contrast, continuity commitment represents the perceived consequences of quitting. The Organizational Commitment Questionnaire (OCQ) and Meyer and Allen's Three-Component Model (TCM) scale are two of the many tools that have been created to evaluate organizational commitment (Maqsood et al., 2012). These measures capture different facets of commitment and have been widely used in research to examine its predictors and outcomes across different organizational contexts.

Various elements have been recognized as indicators of organizational commitment, encompassing individual, organizational, and job-related variables (Lee, Carswell, & Allen, 2000). Personal attributes, including personality traits, values, and demographic characteristics, are significant in shaping employees' inclination to cultivate a robust commitment to their organization (Korankye et al., 2023). Factors related to the organization, including leadership styles, organizational culture, and the perception of support, significantly influence employees' commitment levels (Pathan, 2023). Transformational leadership, marked by an inspiring vision and a nurturing approach, has positively correlated with employees' affective commitment (Pradhan & Pradhan, 2015). Comparably, entities that cultivate a robust ethos of equity, openness, and the advancement of their personnel are likely to engender elevated degrees of dedication (Jiang & Luo, 2018). Factors associated with employment, including job satisfaction, clarity of role, and perceived alternatives, significantly impact employees'

commitment by shaping their sense of fit and overall satisfaction with their position and the organization (Manolache & Epuran, 2023).

Organizational commitment has persistently demonstrated a correlation with numerous advantageous outcomes for both individuals and organizations alike. At the individual level, a heightened sense of organizational commitment is associated with greater job satisfaction, deeper job involvement, and superior job performance (Loan, 2020). Affective commitment is a crucial predictor of discretionary behaviors, encompassing organizational citizenship behavior (OCB) and the willingness to exert extra effort to pursue the organization's goals (Schwarz et al., 2023). Moreover, organizational commitment has implications for employee turnover intentions and actual turnover behavior. Employees with more substantial commitment are less likely to turnover, even in the face of job dissatisfaction or attractive external opportunities (Guzeller & Celiker, 2020).

The notion of continuance commitment, influenced by the perceived costs associated with departure, has the potential to inhibit voluntary turnover. Conversely, affective commitment enhances retention by cultivating employees' emotional bonds with the organization (Chang et al., 2023). At the organizational level, elevated degrees of commitment foster improved citizenship behavior, diminish absenteeism, and lower turnover rates, culminating in enhanced organizational effectiveness and performance (Massoudi, Jameel, & Ahmad, 2020). Employees who demonstrate a strong commitment are inclined to contribute positively toward the organization's objectives, adhere to its principles, and participate in actions that enhance the organization (Inam et al., 2023).

Several moderating and mediating variables have been discerned in the interplay between antecedents, organizational commitment, and resultant outcomes. For instance, perceptions of organizational justice, encompassing distributive, procedural, and interactional dimensions, moderate the relationship between perceived organizational support and affective commitment (Twumasi & Addo, 2020). Furthermore, psychological empowerment has been recognized as a mediating factor linking leadership styles to organizational commitment (Ambad et al., 2021).

Research conducted by Wang, Albert, and Sun (2020) reveals an inverse relationship between affective commitment and psychological isolation. In contrast, continuance commitment positively correlates with physical and psychological isolation among telecommuting employees. In the interim, Rafiei et al. (2022) identified a noteworthy correlation between organizational commitment and organizational pathology. Furthermore, Ashraf (2020) found that demographic factors do not directly influence organizational commitment.

Consequently, organizational commitment is a crucial determinant of employee engagement and overall organizational performance, embodying workers' emotional ties, perceived costs associated with departure, and sense of obligation to the enterprise. Grasping the underlying causes, consequences, and mechanisms of organizational commitment enables businesses to devise strategies that enhance employee dedication, retention, and performance, ultimately fostering their enduring success and competitive edge.

2.6 Determinants of Job Satisfaction

Job satisfaction is a critical construct in organizational behavior research, reflecting employees' overall evaluation of their work experience. Understanding the determinants of job satisfaction

is essential for organizations seeking to enhance employee well-being, engagement, and performance.

Subarto, Solihin, and Qurbani (2021), on job satisfaction determinants among lecturers, discovered work environment, leadership style, and organizational climate as determinants of job satisfaction. Meanwhile, Jędrzejczak-Gas and Wyrwa's (2020) study on transport company job satisfaction factors in Poland shows access to necessary information and independence in performing tasks as determinants of job satisfaction. Moreover, Sousa-Uva et al. (2021) discovered that company trust, feeling good in the workspace, better concentration, work-life balance, and job flexibility are job satisfaction factors among telework in Portugal. Thant and Chang (2021) found motivation and hygiene factors as job satisfaction determinants and interpersonal relationships, personal life, work, and recognition as factors of job dissatisfaction among Myanmar public employees.

A study by Lee et al. (2019) on job satisfaction among US employees based on racial and gender differences discovered that men prioritize employee development more than women. Intersectionality, pay satisfaction, and diversity management are more important to women in minority groups compared with White men. Besides, White men perceived work place participation as most important compared to minority women.

2.7 Research Framework

A research framework is a conceptual structure that guides the design and execution of a research study (Ravitch & Riggan, 2016). It typically consists of key variables, relationships between variables, and underlying assumptions or theoretical perspectives. The framework is a roadmap for organizing data collection, analysis, and interpretation to address the research

questions or hypotheses. Thus, the independent variables in this research will be work engagement and work environment. The dependent variable of this research will be job satisfaction. Meanwhile, organizational commitment will be the mediating variable for this research. Therefore, the research framework for this study is shown in Figure 1 below.

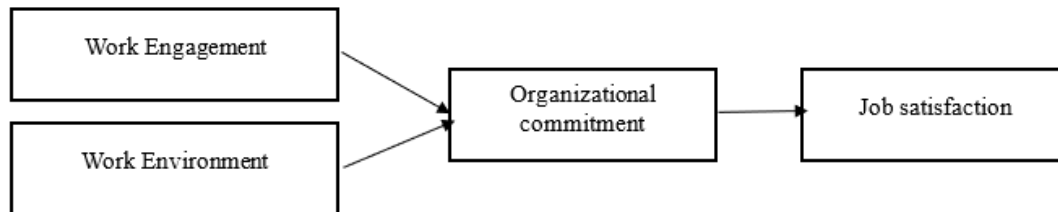


Figure 2. 1*Research Framework*

2.8 Theory of the Study

A research theory is a systematically organized body of knowledge that explains phenomena or predicts outcomes within a particular field of study. It provides a framework for understanding the relationships between variables and generating hypotheses to be tested through empirical research. Research theories are essential for guiding research design, data collection, and analysis to advance understanding and knowledge in a specific area of inquiry.

2.8.1 Social Exchange Theory

Social exchange theory provides a valuable lens through which to understand job satisfaction within organizational contexts. This theory posits that individuals engage in relationships and transactions based on reciprocity, seeking to maximize rewards and minimize costs (Cropanzano et al., 2017). Employees' job satisfaction can be influenced by their perceptions of the exchange relationship between themselves and their organization, colleagues, supervisors, and other stakeholders.

Social exchange theory, rooted in sociology and psychology, proposes that individuals engage in social interactions with the expectation of receiving benefits or rewards in return for their contributions (Blau, 1964). Central to this theory are the concepts of reciprocity, equity, and trust. Reciprocity refers to the mutual exchange of resources, favours, or support between individuals, where both parties seek to maintain a balance of give-and-take (Cross & Dundon, 2019). Equity theory suggests that individuals compare their inputs (e.g., effort, time, skills) and outcomes (e.g., rewards, recognition) with those of others to assess fairness and equity in relationships (Polk, 2022). Trust is essential for fostering cooperation and commitment in social exchanges, as individuals rely on trust to predict and evaluate others' behaviors (Liang, Liu, & Wu, 2008).

This theory offers valuable insights into the dynamics of the employment relationship and its impact on job satisfaction. Employees interact socially with their organization, supervisors, colleagues, and customers. These exchanges involve providing resources such as salary, benefits, training, recognition, and social support in exchange for employees' contributions in terms of effort, skills, and performance (Cropanzano & Mitchell, 2005). Employees' perceptions of these exchanges' fairness, reciprocity, and trustworthiness influence their overall job satisfaction and commitment to the organization.

Employees' perceptions of the quality and fairness of exchange relationships are crucial in shaping their job satisfaction levels. When employees perceive that they receive fair treatment, recognition for their contributions, and opportunities for advancement, they are more likely to experience higher levels of job satisfaction (Eisenberger, Fasolo, & Davis-LaMastro, 1990). Contrarily, perceptions of inequity, exploitation, or lack of reciprocity in exchange relationships can lead to resentment, frustration, and reduced job satisfaction.

2.8.2 Theory of the Study

Social exchange theory can be related to job satisfaction among Nigerian lecturers by examining the reciprocal relationships between lecturers and their institutions, colleagues, and students. According to social exchange theory, individuals engage in reciprocity-based relationships to maximize rewards and minimize costs. In the context of Nigerian lecturers, perceptions of fair treatment, recognition, and support from their institutions (such as adequate salaries, resources, and opportunities for professional development) can positively influence their job satisfaction levels. Additionally, positive interactions with colleagues (such as collaboration, mentorship, and social support) and students (such as respect, engagement, and appreciation) can contribute to lecturers' overall satisfaction with their job. Conversely, perceptions of inequity, exploitation, or lack of support in these exchange relationships may reduce lecturers' job satisfaction. Therefore, understanding and addressing the dynamics of social exchange relationships within the academic environment can help improve job satisfaction and overall well-being among Nigerian lecturers.

2.9 Hypotheses

Research hypotheses are tentative statements that propose a relationship between two or more variables in a research study. They serve as specific predictions about the expected outcomes of the study based on theory, previous research, or logical reasoning. Hypotheses guide the research process by providing a clear direction for data collection, analysis, and interpretation, helping researchers test their assumptions' validity and contribute to knowledge in their field.

2.9.1 Work Engagement and Job Satisfaction

When workers engage with their work, they may go into intuitive mode with challenges, motivation, and pride. This engagement gives principal commitment to job satisfaction. Work

engagement contains individual aspects, while job satisfaction is the outcome (Garg, Dar, & Mishra, 2018). Employees who strongly and positively engage in their work and show dedication and energy tend to have high job satisfaction (Karatepe, Rezapouraghdam, & Hassannia, 2020). Meanwhile, Ott, Haun, and Binnewies (2019) discovered that employees with high engagement levels with their work and their organization are affected by adverse events they face and primarily by job-related stressors.

Meanwhile, Garg, Dar, and Mishra (2018) stated that uncertainties and organizational tensions force workers to display their involvement and commitment to their work. This kind of commitment and responsibility is caused by external tensions imposed rather than intrinsic ones, which prompt decreased job satisfaction. The discrepancy between individual expectations and external demands leads to lower job satisfaction.

According to Hamilton Skurak et al. (2021), employees may be absorbed or addicted to their work in some cases. However, a study by Burke and MacDermid (1999) shows a negative relationship between work addiction and job satisfaction. In their study, Garg, Dar, and Mishra (2018) found high work engagement of senior executives. However, low-level employees and hourly paid workers have the lowest work engagement level and involvement in the organization. Besides, supervisors tend to have more energy, enthusiasm, motivation, and concentration than low-level employees. Thus, the following hypothesis is proposed:

H1: Work engagement and job satisfaction have a positive significant relationship.

2.9.2 Work Environment and Job Satisfaction

The work environment shapes employee satisfaction, productivity, and overall organizational success. Work environment aspects can influence the behavior of individuals and

organizations. Physical and non-physical aspects of the work environment are important for employees' optimum performance. According to Kasbuntoro et al. (2020), as best as possible, the surrounding conditions of the organization are maintained and considered so that employees feel comfortable at work, which can lead to job satisfaction. Besides, the organization's infrastructure and facilities that support the employees' work activities make them feel the organization's attention towards them, which may contribute to their job satisfaction.

Hanafi and Syah (2021), in the study of the work environment's impact on job satisfaction from various sectors, discovered a positive relationship between the work environment and job satisfaction. This finding supported Singgih et al.'s (2020) research, where they discovered a significant positive effect on job satisfaction and workers' performance in the work environment. Similar results were obtained by Subarto, Solihin, and Qurbani (2021) on the relationship between work environment and job satisfaction. Thus, the following hypothesis is proposed:

H2: Work environment and job satisfaction have a positive significant relationship.

2.9.3 Organizational Commitment and Job Satisfaction

Organizational commitment is the degree of employee involvement with and dedication to the company. It covers a person's emotional connection, loyalty, and readiness to commit time to help the company's aims come about. One element influencing the workers' organizational commitment is job satisfaction. Encouraging workers to be dedicated to their company through job satisfaction may help develop organizational commitments. This is evident when job expectations are successfully fulfilled, along with success in work expectations, resulting in

higher job satisfaction (Hiola & Hanurawan, 2022). Mathieu (1991) argues that employee organizational commitment might raise work satisfaction while vice versa. Accordingly, the following theory is put forth.:

H3: Organizational commitment and job satisfaction have a positive significant relationship.

The mediating role of Organizational Commitment on the Relationship between Work Engagement and Work Environment on Job Satisfaction

2.9.4 Work Engagement and Organizational Commitment

Work engagement is essential for fostering organizational commitment. Employees exhibiting elevated engagement—marked by vigour, zeal, and commitment—tend to show a greater allegiance to their company (Karatepe, Rezapouraghdam, & Hassannia, 2020; Garg, Dar, & Mishra, 2018). Research by Ott, Haun, and Binnewies (2019) demonstrates that engagement empowers employees to endure difficulties and sustain motivation, resulting in a heightened dedication to their positions and corporate objectives. Moreover, the intrinsic desire stemming from participation fosters a psychological connection with the organization, increasing total commitment (Hamilton Skurak et al., 2021). Garg et al. (2018) observed that external pressures might diminish pleasure and commitment, underscoring the need for businesses to tackle elements that compromise engagement.

H4: There is a significant relationship between work engagement and organizational commitment.

2.9.5 Work Environment and Organizational Commitment

The work environment affects how committed workers are to the company by changing how comfortable, supported, and recognized they feel. According to Kasbuntoro et al. (2020), physical and non-physical factors, like infrastructure and working ties, foster dedication. Hanafi and Syah (2021) found that a helpful work environment makes workers feel like they fit and makes them more ready to help the company succeed. Studies by Singgih et al. (2020) and Subarto, Solihin, and Qurbani (2021) highlight that a supportive work environment enhances job satisfaction and deepens employees' emotional ties to their organization. Therefore, establishing an ideal work environment can be a strategic method to boost commitment.

H5: A significant relationship exists between work environment and organizational commitment.

2.9.6 Organizational Commitment as a Mediator Between Work Engagement and Job Satisfaction

Workers' commitment to the organization increases when they feel appreciated, encouraged, and at ease on the job. Infrastructure and working connections are two examples of non-physical elements that promote commitment, according to Kasbuntoro et al. (2020). Hanafi and Syah (2021) found that workers are likelier to help the company succeed when they feel like they belong at work. Studies by Singgih et al. (2020) and Subarto, Solihin, and Qurbani (2021) show that a helpful workplace makes workers happier with their jobs and makes them feel more connected to their company. So, creating a great place to work can be a smart way to get people more committed.

H6: Organizational commitment significantly mediates the relationship between work engagement and job satisfaction.

2.9.7 Organizational Commitment as a Mediator Between Work Environment and Job Satisfaction

The known research confirms the mediation function of organizational commitment in the link between work environment and job satisfaction. An affirmative work environment cultivates a feeling of belonging and commitment, resulting in enhanced organizational allegiance (Hanafi & Syah, 2021; Kasbuntoro et al., 2020). This commitment enhances job satisfaction, as employees feel valued and supported (Hiola & Hanurawan, 2022). Research by Singgih et al. (2020) and Subarto et al. (2021) indicates that enhancements in working conditions, including ergonomic design and open communication channels, directly increase employee satisfaction and indirectly improve their commitment. Organizations seeking to enhance job satisfaction should prioritize establishing a supportive work environment to reinforce the mediating role of commitment.

H7: There exists a significant mediating role of organizational commitment in the relationship between work environment and job satisfaction.

2.10 Summary

To summarize, this chapter reviewed past work by other scholars on job satisfaction, work engagement, work environment, organizational commitment, and determinants of job satisfaction. Based on previous work, a research framework and research hypotheses are developed.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Chapter Overview

This chapter will briefly explain the systematic process that will be used in this research to achieve the research objectives, which include (1) research design, (2) sample size and sampling technique, (3) research instrument, (4) data collection method, and data analysis.

3.2 Research Design

This research is a quantitative study that will be carried out on university lecturers in Northern Nigeria. The data collection was collected from July 23, 2024 to November 03, 2024, to determine the effects of work engagement, work environment, and organizational commitment on job satisfaction.

3.3 Population

The population being examined pertains to the distinct group of individuals for whom the findings of a study hold significance and from whom data is collected to achieve the study's objectives. Hutchinson (2003) highlights the importance of aligning the population with the study's objectives to ensure the findings are pertinent and can be generalized. Furthermore, Story and Tait (2019) emphasize the importance of clearly defining the target population to remove ambiguity and ensure the appropriate application of survey results. Determining the population is crucial, as it directly influences the sampling process, guaranteeing that representative data are gathered to achieve the study's goals (Coughlan, Cronin, & Ryan, 2009). Moreover, Rahman (2023) highlights the necessity of accurately determining the population

size, particularly in survey research, to facilitate precise sample size calculations and enhance the validity of findings. These studies emphasize the significance of a well-defined study population as an essential element in producing reliable and pertinent results. Hence, the population involved in this study will be the university lecturers in Northern Nigeria.

3.3.1 Sampling Frame

The sampling frame of this study will be the list of universities in Northern Nigeria and the list of lecturers in universities in the Northern Nigeria region. The list of information will be obtained from the Human Resources department in the selected university. The information will be the list updated until January 2024.

3.3.2 Sampling Unit (Inclusion and Exclusion Criteria)

This research's inclusion and exclusion criteria will be based on Table 3.1 below.

Table 3. 1
Inclusion and Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
- Lecturers teaching in Northern Nigeria universities. - Work duration of more than 1 year	- Lecturer teaching in universities apart from the Northern Nigeria region. - Work duration less than 1 year

3.3.3 Sampling Strategy

The target population for this research will be determined based on accessible data obtained from the Human Resources Department of selected universities in Northern Nigeria due to the convenience factor and accessibility to the researcher. This study will use the non-probability

sampling method, which is Convenience Sampling. This method was chosen to select the respondents because it is inexpensive, quick, and easy for the researcher.

3.3.4 Sampling Size

The sampling size for this research will be 250 respondents of Nigerian academic staff in Northern Nigeria.

3.4 Research Instrument

This research instrument is based on survey questions developed to achieve the study's objectives. The survey questions are divided into five (5) parts, which are Section A (socio-demographic information of respondents), Section B (job satisfaction), Section C (work engagement), Section D (work environment), and Section E (organizational commitment). Table 3.2 below shows the questionnaire instruments, and Table 3.3 shows the questionnaire items.

Table 3. 2
Questionnaire Instruments

Section	Instruments
Section A	Socio-demographic information of the respondents
Section B	Job satisfaction (Vandenabeele, 2009), (Depré & Hongdeghem, 1995).

Section C	Work engagement (Schaufeli & Bakker, 2003).
Section D	Work environment (Moos & Insel, 1974).
Section E	Organizational Commitment (Mowday, 1982).

Table 3. 3
Questionnaire items

Section		Item(s)
A	– Socio-demographic information	Age, gender, educational level, duration of work
B	– Job satisfaction	(1) Ability to balance the job demands and personal life, (2) Have sufficient time to maintain and balance work and personal life, (3) Can have vacation days without work distraction, (4) Successfully balancing work and personal life, (5) Energy level when go back home after work.
C	– Work engagement	(1) Opportunity to do the best at the workplace, (2) Expectation at the workplace, (3) University care for the welfare of the staff, (4) University encouragement for staff development, (5) Freedom of opinion at the workplace, (6) Opportunities for work and learning, (7) Colleague commitment on their work, (8) University engagement of staff progress, (9) Enough resources to do the task.
D	– Work environment	(1) Pressure on working, (2) Work organization, (3) Urgency of task, (4) Plan of work activities, (5) Ability for workers to relax, (6) Rules and regulations of university, (7) Staff’s effort to do their task, (8) Supervisor’s roles and responsibilities, (9) Time pressure, (10) Details of work/task are well explained.
E-	Organizational commitment	(1) Sense of belonging, (2) Emotional attachment, (3) Sense of pride, (4) Happiness in the workplace, (5) Care about the fate of the organization, (6) Organization brings personal meaning to the staff, (7) Willing to put extra effort, (8) Will accept any assignment, (9) Glad choosing this organization.

3.5 Data Collection Procedure

There will be several steps in conducting data collection in this research. First, permission must be obtained from the university to conduct the study. After permission from the university is granted, permission from the selected universities in Northern Nigeria will be obtained to collect the data. Once the permission is obtained, the data collection will be conducted. The estimated duration for the data collection process is about one (1) month from 22/July/2024 to 03/November/2024. Figure 3.1 below shows the procedure for data collection.

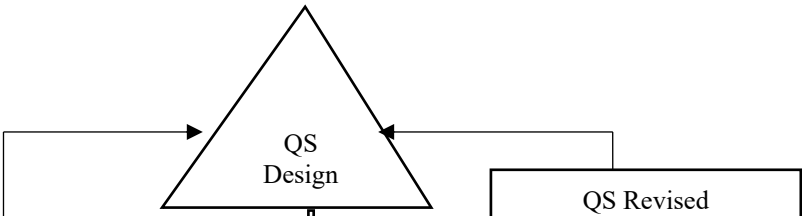


Figure 3. 1
Data Collection Process

3.6 Quality Control

Quality control will be conducted to ensure the correctness and validity of results. To achieve this, a validity and reliability test will be conducted before data collection to confirm the accuracy of the questionnaire.

3.6.1 Validity

To ensure the validity of the questionnaire, an expert review will be conducted, where reviewers will evaluate the questionnaire to ensure it measures the variables that the study aimed to measure. Thus, this questionnaire was reviewed by Expert 1, who provided constructive feedback on the questionnaire, emphasizing the clarity and relevance of the questions. The first expert highlights areas requiring rephrasing to avoid ambiguity and ensure alignment with the study's objectives. Suggestions included refining the structure for better respondent engagement. Their review significantly enhanced the questionnaire's validity and reliability.

Furthermore, expert 2 is also an expert and an academician. Expert 2 did a careful evaluation concentrating on coherence, ambiguity, and the existence of double-barreled issues. They found discrepancies and offered adjustments to guarantee logical flow and agreement with the study goals. Ambiguous phrases were noted, with suggestions for explicit language. Double-barreled questions were pointed out, and solutions were given to separate ideas for improved clarity.

The experts will be selected based on their experience and expertise in evaluating instruments measurement related to the job satisfaction domain of study. Amendment of the questionnaire will be based on the expert's comments to improve the overall questionnaire design and items.

3.6.2 Reliability Test

This study will conduct Cronbach's Alpha coefficient test to ensure the reliability of the questionnaire. This test will be conducted using SPSS version 28. Table 3.4 shows the indicator of Cronbach's Alpha coefficient.

Table 3. 4
Cronbach's Alpha Indicator

Indicator	Cronbach's Alpha Value
Excellent	0.9 and above
Good	0.8 to 0.89
Acceptable	0.6 to 0.79
Questionable	0.4 to 0.59
Not Acceptable	0.0 – 0.39

Data Analysis

The data obtained in this study will be analyzed using SPSS version 28 for Windows software.

Table 3.5 below shows the data analysis process involved in this study.

Table 3. 5

Data Analysis Process

Research Objectives	Measurement	Analysis	
To study the relationship between work engagement and lecturers' job satisfaction in Northern Nigeria.	What is the relationship between work engagement and lecturers' job satisfaction in Northern Nigeria?	Pearson coefficient	correlation
	<u>Hypothesis:</u> H0: There is no relationship between work engagement and job satisfaction. H1: There is a relationship between work engagement and job satisfaction.		
To study the relationship between work environment and lecturers' job satisfaction in Northern Nigeria.	What is the relationship between the work environment and lecturers' job satisfaction in Northern Nigeria?	Pearson coefficient	correlation
	<u>Hypothesis:</u> H0: There is no relationship between work environment and job satisfaction. H1: There is a relationship between work environment and job satisfaction.		
To study the relationship between organizational commitment and lecturers' job satisfaction in Northern Nigeria.	What is the relationship between organizational commitment and lecturers' job satisfaction in Northern Nigeria?	Pearson coefficient	correlation
	<u>Hypothesis:</u> H0: There is no relationship between organizational commitment and job satisfaction. H1: There is a relationship between organizational commitment and job satisfaction.		

3.7 Summary

To summarize, this chapter explained the process involved, including the research design, sampling method, research instrument, data collection process, and data analysis method. This chapter clearly illustrates the manner and pattern in which this study was designed methodologically. In a nutshell, this chapter provides better insight into the study's methodology.



CHAPTER FOUR

DATA ANALYSIS

4.1 Chapter Overview

This chapter offers the data analysis using two main statistical programs— Statistical Package for Social Sciences (SPSS) version 28 and Partial Least Square Structural Equation Modelling (PLS-SEM). The first tool assessed the data demographics, including gender, age, education, and work length. Moreover, it helps one to see the data's normalcy. On the other hand, the suggested hypotheses were validated using the PLS-SEM.

4.2 Data Screening and Cleaning (Normality)

Before examining the demographic characteristics of the collected data, the normality was checked. Even though PLS-SEM is a non-parametric analytic tool (Awang, Afthanorhan & Asri, 2015; Matthews, Hair & Matthews, 2018), it is advisable to observe the normality curve to avoid extreme outliers that might influence the research findings (Aguinis, Gottfredson & Joo, 2013; Awang, Afthanorhan & Asri, 2015). The normality results Table and diagrams are presented in Figure 4.1 to Figure 4.2 and Table 4.1.

The data normality distribution was examined using the skewness and kurtosis, histogram with normality curve, and the box plot. According to (Doane & Seward, 2011; Henderson, 2006), the data failed the normality test if the skewness and kurtosis value exceeded absolute one (± 1) and three (± 3).

Table 4. 1
Normality Table

Before the Removal of Outliers	After the Removal of Outliers
--------------------------------	-------------------------------

Constru	Mea	Media	Std	Skewne	Kurtosi	Mea	Media	Std	Skewne	Kurtos
ct	n	n	.	ss	s	n	n	.	ss	is
JS	3.33	3.50	0.51	-0.78	0.04	3.36	3.50	0.48	-0.65	-0.36

Table 4.1 reveals that the skewness and kurtosis values were within absolute one and three. However, the box plot illustrates that specific data points diverge from others, revealing outliers. These are provided in Table 4.1 and Figure 4.1.

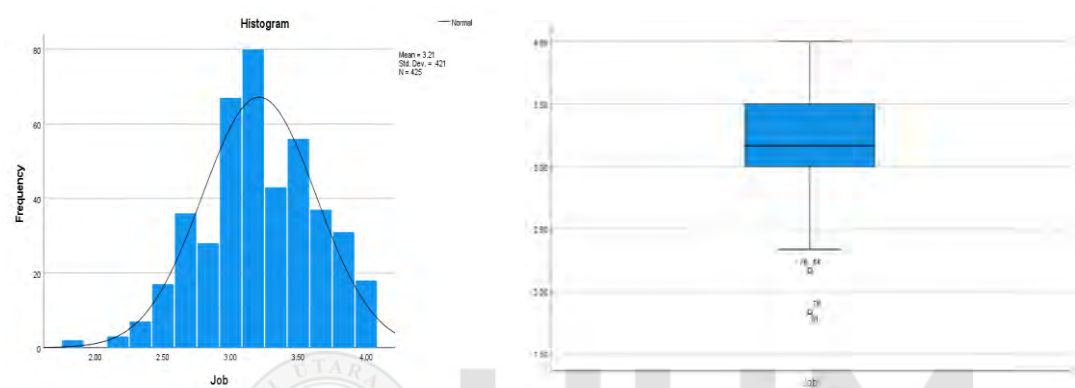


Figure 4. 1
Normal Curve and Box-Plot before Outlier Removal

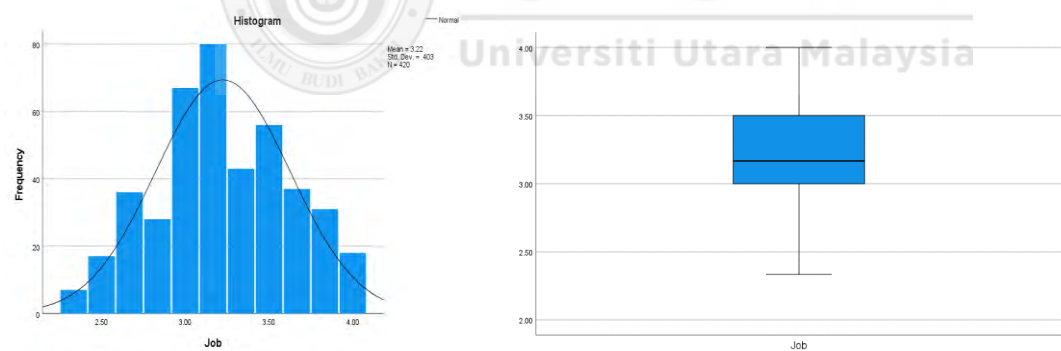


Figure 4. 2
Normal Curve and Box-Plot after Outlier Removal

Although the normal curve in Figure 4.1 shows that the data is approximately normal, the box plot reveals four data points identified as outliers. Hence, the identified data points in the box plot were removed from the dataset.

Figure 4.2 shows that there is no data point outside the box-plot. Hence, the researcher proceeded with the data analysis because the data assumed a normal distribution pattern.

Table 4. 2
Demographic Information

Variable	Grouping	Sample (n)	Frequency (%)
Gender	Male	79	51.00
	Female	76	49.00
Age	31 - 40	21	13.50
	41 - 50	80	51.60
	Above 51	54	34.80
Education	Degree	1	0.60
	Masters	90	58.10
	PhD.	64	41.30
Employment Duration	Less than one year	2	1.30
	3 - 4 years	17	11.00
	5 - 6 years	16	10.30
	6 - 7 years	37	23.90
	9 - 10 years	28	18.10
	11 years and above	55	35.50

Table 4.1 presents the demographic findings for the collected data after using the frequency distribution from the SPSS to analyze the investigated demographic items. Table 4.1 shows that 51% (79) of the research participants were male respondents, while the remaining 49% (76) were female. Furthermore, most of the respondents were found to be between the age group 41 – 50 with 51.60% (80) respondents, followed by the respondents within the age group above 51 with 34.80% (54), and the last age group represented this research were those within the age-group 31 – 40 having 13.50% (21).

In addition, the researcher explored the respondents' highest education levels. The findings show that most respondents' highest education level is a master's degree, followed by a PhD. The least is a bachelor's degree, with 58.10% (90), 41.30% (64), and 0.60% (1), respectively. Moreover, the respondents' employment duration was examined. The purpose is to understand the knowledgeability of responding to this questionnaire based on this question. The results

show that most of those surveyed have enough years of working experience. The findings reveal that most of the respondents have over 11 years of working experience, followed by those with between 6 – 7 years of working experience, 9 – 10 years 35.50% (55), 23.90% (37), and 18.10% (28). Also, it was observed from the same analysis that those respondents with less than a year were the least group, followed by those with 5 – 6 years and 3 – 4 years of working experience, having 1.30% (2), 10.30% (16) and 11% (17) respectively.

4.3 Inferential Statistics and Hypothesis Testing

The inferential statistics and the research hypothesis are tested in this research by using the PLS-SEM analytical tool. This tool was employed because it can solve complex statistical relationships without the fear of committing Type I or Type II errors (Sarstedt et al., 2020). Given this, analysis using the PLS-SEM must be conducted in two stages to achieve unbiased, desired, and valid results: measurement and structural model assessment (Akter et al., 2017; Hair et al., 2012; Sarstedt et al., 2020). Concerning the measurement model, the searcher must assess the model's convergent validity, which comprises the item loadings (loadings), composite reliability (CR), and Average Variance Extracted (AVE).

Furthermore, the research, according to Hair et al. (2012) and Henseler et al. (2015), must assess the data discriminant validity that consists of checking the cross-loadings, making sure that the items measuring each construct have higher loadings under the construct to which they measure using Heterotrait Monotrait (HTMT) and Fornell Larcker (1981) criterion variable correlation (root square of AVE).

The second crucial step is structural model assessment. The researcher is expected to assess collinearity issues, hypothesis (path coefficient), coefficient of determination, effect size, and

predictive relevance (Hair et al., 2012). Therefore, the researcher meticulously followed the steps in this research.

4.3.1 Measurement Model Assessment

Figure 4.3 illustrates the measurement model running the algorithm function of the PLS-SEM analytic tool after confirming that all the relevant data were supplied to the statistical tools. As indicated by Henseler, Ringle, and Sinkovics (2009) and Henseler, Ringle, and Sarstedt (2012), the measurement model stage is significant as it defines the reliability and the validity of the study inquiry by assessing the convergent and discriminant validity.

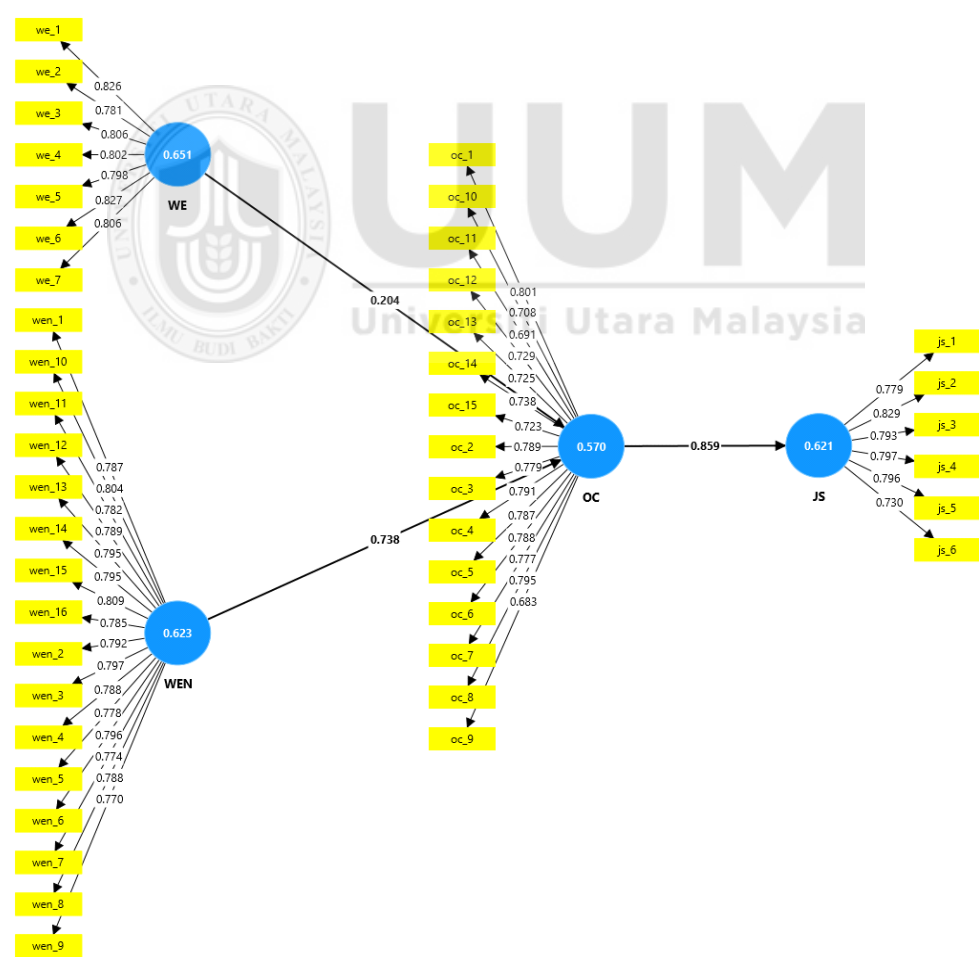


Figure 4. 3
Measurement Model

Figure 4.3 and Table 4.3 presents the item loadings, composite reliability, and AVE. According to Götz, Liehr-Gobbers, and Krafft (2009), the minimum threshold for each item in the model should not be less than 0.4, provided other conditions were fulfilled. In contrast, Afthanorhan, Awang, and Aimran (2020) suggested a minimum threshold of 0.6. In such a case, where other conditions such as AVE and CR minimum threshold were not met, the items with the most negligible value should be eliminated from the model.

Similarly, AVE is achieved if the AVE value is equal to or greater than 0.5 (Shrestha, 2021). The researcher can eliminate items with lower loadings when such is not achieved. Considering this, two items from work engagement (WE), items 8 and 9 (we8 and we9), were deleted from the model. Given this, the AVE value for the construct WE is 0.651, surpassing the minimum threshold of 0.5.

Concerning the composite reliability (CR), also in Table 4.3, the rho_a was utilized. The condition to conclude a reliable model, according to Kamis, Saibon, Yunus, Rahim, Herrera, and Montenegro (2020), and Nasution, Fahmi, and Prayogi (2020) state that the CR value must be greater than 0.7. Insight into Table 4.3 reveals that the CR values range from 0.878 to 0.960, greater than the minimum threshold of 0.7. on this note, the researcher concludes that the model is reliable.

Figure 4. 4
Measurement Model Assessment

Construct	Items	Item Loadings	Composite reliability (rho_a)	(AVE)	Discriminant Validity
JS	js_1	0.779	0.878	0.621	Achieved
	js_2	0.829			
	js_3	0.793			
	js_4	0.797			
	js_5	0.796			
	js_6	0.730			

OC	oc_1	0.801	0.948	0.570	Achieved
	oc_2	0.789			
	oc_3	0.779			
	oc_4	0.791			
	oc_5	0.787			
	oc_6	0.788			
	oc_7	0.777			
	oc_8	0.795			
	oc_9	0.683			
	oc_10	0.708			
	oc_11	0.691			
	oc_12	0.729			
	oc_13	0.725			
	oc_14	0.738			
	oc_15	0.723			
WE	we_1	0.826	0.911	0.651	Achieved
	we_2	0.781			
	we_3	0.806			
	we_4	0.802			
	we_5	0.798			
	we_6	0.827			
	we_7	0.806			
WEN	wen_1	0.787	0.960	0.623	Achieved
	wen_2	0.792			
	wen_3	0.797			
	wen_4	0.788			
	wen_5	0.778			
	wen_6	0.796			
	wen_7	0.774			
	wen_8	0.788			
	wen_9	0.770			
	wen_10	0.804			
	wen_11	0.782			
	wen_12	0.789			
	wen_13	0.795			
	wen_14	0.795			
	wen_15	0.809			
	wen_16	0.785			

Table 4.4 presents the model's cross-loadings. Table xx shows that items measuring each construct have the highest loading under the measured construct. According to Henseler et al. (2009) and Shresth (2021), convergent validity is achieved by the observed phenomena. Meanwhile, the cross-loadings are not the only criteria used to assess the model's discriminant validity, as presented by (Henseler et al., 2015). The HTMT correlation matrix and Fornell Larcker criterion also determine the model's discriminant validity.

Figure 4. 5
Cross loadings

Items	JS	OC	WE	WEN
js_1	0.779	0.256	0.254	0.005
js_2	0.829	0.196	0.093	0.215
js_3	0.793	0.089	0.190	0.145
js_4	0.797	0.222	0.202	0.281
js_5	0.796	0.324	0.319	0.395
js_6	0.730	0.122	0.223	0.279
oc_1	0.203	0.801	0.153	0.068
oc_2	0.244	0.789	0.025	0.229
oc_3	0.075	0.779	0.015	0.215
oc_4	0.310	0.791	0.452	0.101
oc_5	0.213	0.787	0.118	0.222
oc_6	0.005	0.788	0.108	0.323
oc_7	0.215	0.777	0.203	0.167
oc_8	0.145	0.795	0.243	0.005
oc_9	0.281	0.683	0.476	0.215
oc_10	0.395	0.708	0.300	0.256
oc_11	0.279	0.691	0.287	0.196
oc_12	0.068	0.729	0.323	0.089
oc_13	0.229	0.725	0.616	0.222
oc_14	0.215	0.738	0.003	0.324
oc_15	0.101	0.723	0.104	0.122
we_1	0.330	0.151	0.826	0.256
we_2	0.323	0.077	0.781	0.196
we_3	0.167	0.202	0.806	0.395
we_4	0.382	0.107	0.802	0.279
we_5	0.076	0.115	0.798	0.068
we_6	0.212	0.038	0.827	0.229
we_7	0.389	0.429	0.806	0.215
wen_1	0.103	0.319	0.214	0.787
wen_2	0.272	0.229	0.215	0.792
wen_3	0.370	0.119	0.145	0.797
wen_4	0.008	0.328	0.281	0.788
wen_5	0.247	0.213	0.395	0.778
wen_6	0.379	0.134	0.279	0.796
wen_7	0.062	0.212	0.085	0.774
wen_8	0.294	0.041	0.443	0.788
wen_9	0.480	0.412	0.212	0.770
wen_10	0.199	0.389	0.481	0.804
wen_11	0.215	0.103	0.451	0.782
wen_12	0.145	0.272	0.138	0.789
wen_13	0.281	0.370	0.261	0.795
wen_14	0.395	0.008	0.370	0.795
wen_15	0.279	0.247	0.346	0.809

Items	JS	OC	WE	WEN
wen 16	0.085	0.379	0.386	0.785

Duarte and Raposo (2010) proposed that discriminant validity is the extent to which a construct is uniquely different. In addition to the cross-loadings used to examine the discriminant validity in Table 4.5, HTMT and Fornell Larcker criteria were employed.

Figure 4. 6
HTMT Correlation

Construct	JS	OC	WE
OC	0.241		
WE	0.366	0.254	
WEN	0.139	0.070	0.293

Henseler, Ringle, and Sarstedt (2015) proposed that the primary criterion for assessing discriminant HTMT is Even though the Fornell Larcker Criterion existed long before HTMT became popularized. However, Hensler et al. (2015) posit that the Fornell Larcker criterion lacks tangible theoretical underpinning. Given this, HTMT is reported first in this investigation. Based on the assumptions guiding using HTMT, the construct intercorrelation coefficients must be less than 0.85 (Russo & Stol, 2021) or 0.9 (Al-Emran, Mezhyuev & Kamaludin, 2019).

This implies that if the intercorrelation coefficient exceeds 0.85 or the extremely acceptable limit of 0.9 proposed by (Al-Emran et al., 2019), the equation model fails the discriminant validity test. Concerning this investigation, Table 4.5 shows that all the construct’s intercorrelation coefficients are less than 0.85; hence, a discriminant validity test is achieved.

Figure 4. 7
Fornell Larcker Criterion

Construct	JS	OC	WE	WEN
JS	0.788			
OC	0.559	0.755		
WE	0.364	0.329	0.807	

WEN	0.162	0.327	0.529	0.789
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Even though Hensler et al. (2015) nullify using the Fornell Larcker criterion as a parameter to assess the model’s discriminant validity, many scholars consider it a valid assessor (Cárdenas-Gutiérrez et al., 2021; Wetzels et al., 2009). Hence, according to the postulation by (Wetzels et al., 2009), it is included in this research that the value of the intercorrelated construct at the diagonal is the square root of the AVE. Meanwhile, Ruiz et al. (2008) posited that the first value on each column must be greater than the subsequent interrelated construct value under the same column or at the same row to the left.

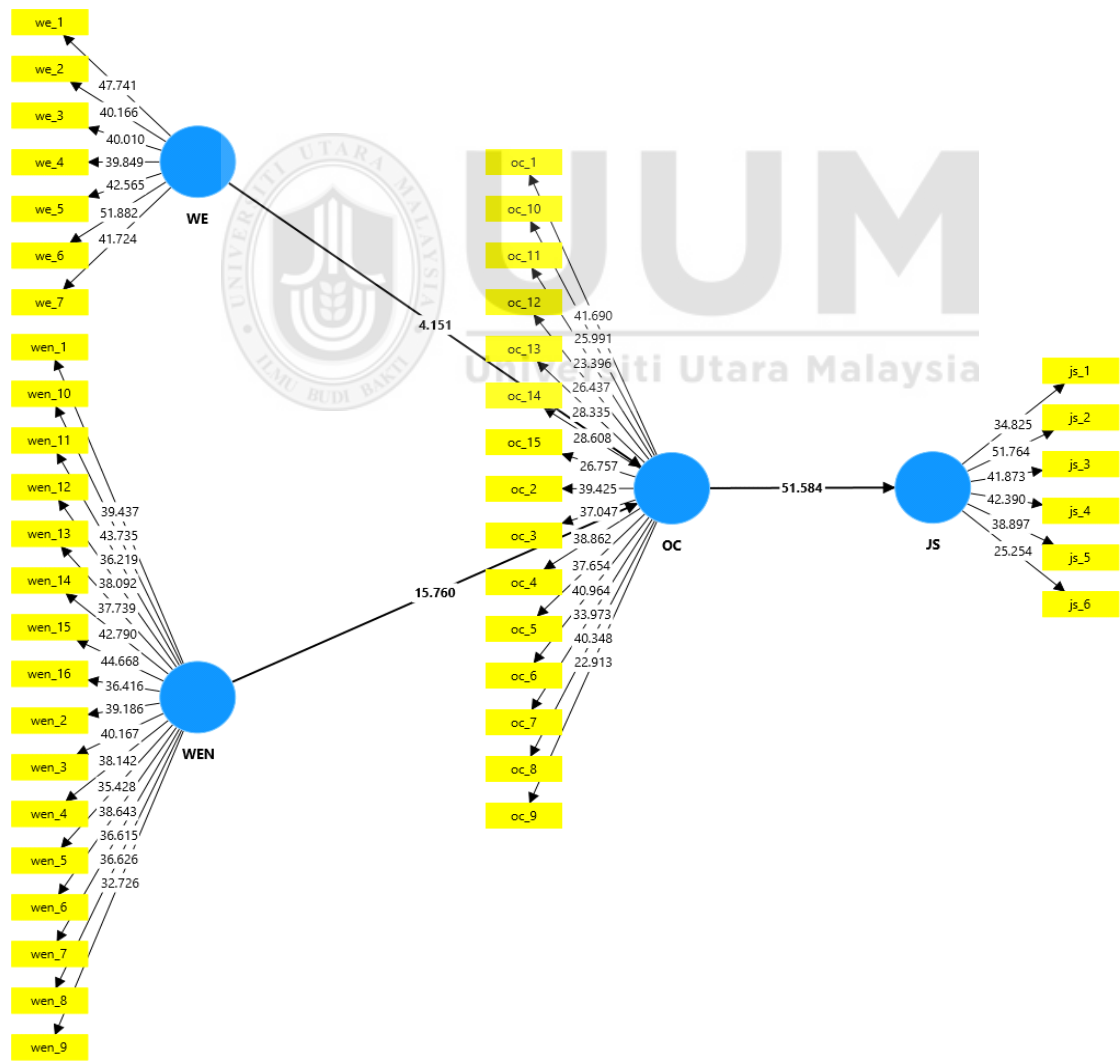


Figure 4. 8
Structural Model Output

The next critical step after analyzing the measurement model is the structural model (Henseler, Hubona, & Ray, 2016). This study's structural model evaluation complies with the recommendations stated by Hair et al. (2017) and Ramayah et al. (2018). The guideline consists of a five-step measurement method, namely, (1) evaluation of collinearity and (2) analyzing the importance of route coefficients in the outcomes of hypothesis testing. (3) an evaluation of the R-squared level (R²), (4) an assessment of the impact size of f², and (5) an assessment of predictive significance (Q²). The researcher performs these five stages by utilizing the bootstrapping technique with resampling of 5000 samples to establish the loadings' significant level and route coefficient, as provided by Hair et al. (2014). In assessing the structural model connection, the choice of a significant level was left at default, commonly set at 0.05 (Hair et al., 2010). Specifically, this section investigates the hypotheses on the direct and moderating effects. The structural modeling is illustrated in Figure 4.4.

Table 4. 3
VIF Table (Internal)

Construct	JS	OC
OC	2.414	
WE		2.660
WEN		2.371

Table 4. 4
VIF Table (External)

Items	VIF
js_1	1.928
js_2	2.277
js_3	1.943
js_4	1.991
js_5	1.983
js_6	1.610
oc_1	2.491
oc_10	1.880
oc_11	1.818
oc_12	2.106
oc_13	1.996
oc_14	2.046
oc_15	1.986
oc_2	2.430
oc_3	2.323

oc_4	2.359
oc_5	2.362
oc_6	2.395
oc_7	2.253
oc_8	2.416
oc_9	1.765
we_1	2.331
we_2	1.991
we_3	2.171
we_4	2.187
we_5	2.165
we_6	2.381
we_7	2.237
wen_1	2.422
wen_10	2.569
wen_11	2.396
wen_12	2.414
wen_13	2.479
wen_14	2.511
wen_15	2.605
wen_16	2.432
wen_2	2.466
wen_3	2.496
wen_4	2.416
wen_5	2.438
wen_6	2.660
wen_7	2.371
wen_8	2.445
wen_9	2.290

Table 4.7 and Table 4.8 present the internal and external values for the variance inflated factor (VIF), which assesses the presence of multicollinearity in the model (Allam et al., 2020; Allen, 1997). According to Allen (1997), collinearity or multicollinearity is a strong correlation between two or more independent constructs or items. Collinearity or multicollinearity becomes an issue in a model if the VIF values are high, implying that items or the constructs used to measure a unique construct measure more than one construct. The higher the VIF value, the lower the unique variance explained (β -value). Therefore, the presence of multicollinearity (external) or collinearity (internal) is observed and concluded available if the VIF value is greater than three (3) (Allen, 1997). In contrast, other scholars, including Schwarz, Schwarz, and Black (2014), argue that the VIF value greater than ten (10) signifies the presence of multicollinearity as the case of items and collinearity as the case of the construct.

As observed in Table 4.7 and Table 4.8, the VIF values are lesser than three (3). Given this, the research concludes that multicollinearity and collinearity are not issues to be worried about in this research. Hence, the researcher proceeded with hypothesis testing.

Table 4. 5
Direct Relationship

Hypothesis	Relationship	β	STD	T stat	P values
H ₁	WE -> OC	0.204	0.049	4.151	0.000
H ₂	WEN -> OC	0.738	0.047	15.760	0.000
H ₃	OC -> JS	0.859	0.017	51.584	0.000
H ₄	WE -> JS	0.175	0.043	4.106	0.000
H ₅	WEN -> JS	0.634	0.042	15.106	0.000

N/B: WE implies Work Engagement, WEN implies Work Environment, OC implies Organizational Commitment, and JS implies Job Satisfaction.

The first hypothesis (H1) in this study claims a substantial relationship between work engagement (WE) and organizational commitment (CO). Using structural equation modelling (SEM) to evaluate the obtained data, the result demonstrates that, as predicted, there is a significant relationship between WE and CO having ($\beta = 0.204$, t-value = 4.151), $p < .05$. The results in this respect therefore reveal a positive significant relationship between job engagement and organizational commitment. Therefore, the researcher adopts the first hypothesis.

The second Hypothesis (H2) suggests a considerable relationship between work environment and organizational commitment. The SEM result demonstrates that, indeed, there is a significant relationship between WEN and OC having ($\beta = 0.738$, t-value = 15.760), $p < .05$. The SEM results in this respect corroborate the hypothesis that the surveyed samples feel there is a strong relationship between work environment and organizational commitment. Given this, H2 was acceptable.

This researcher's third Hypothesis (H3) claims a substantial relationship between OC and JS. Using PLS-SEM to validate the presented hypothesis, the data demonstrate that the surveyed participants feel there is a substantial relationship between organizational commitment (OC) and job satisfaction (JS), having OC and JS ($\beta = 0.859$, $t\text{-value} = 51.584$), $p < .05$. Hence, we adopt the third hypothesis (H3).

The fourth hypothesis (H4) asserts a strong relationship between work engagement (WE) and job satisfaction (JS). Using PLS-SEM to analyze the gathered data indicates a significant relationship between WE and JS having ($\beta = 0.175$, $t\text{-value} = 4.106$), $p < .05$. Therefore, the fourth hypothesis was approved.

The fifth hypothesis (H5) hypothesized a substantial relationship between WEN and JS. The researcher applies a PLS-SEM analytic method to validate this relationship using survey data acquired from the respondents. The findings confirm the suggested hypothesis that there is a significant relationship between WEN and JS having ($\beta = 0.634$, $t\text{-value} = 15.106$), $p < .05$. Given this, the fifth hypothesis in this investigation was accepted.

Indirect Relationship

The next section of this research discusses the indirect (Mediating role of OC) on the relationship between WE and WEN on JS.

Table 4. 6 *Mediating Effect of OC*

Hypothesis	Relationship	β	STD	T stat	P values
H ₆	WE -> OC -> JS	0.175	0.043	4.106	0.000
H ₇	WEN -> OC -> JS	0.634	0.042	15.106	0.000

Additionally, the researcher examines the indirect relationship of OC on the relationship between WE and JS as the sixth (H₆) hypothesis. Using the PLS-SEM analytic tool, the findings show that OC significantly mediates the relationship between WE and JS having ($\beta = 0.175$, $t\text{-value} = 4.106$), $p < .05$. Hence, the sixth hypothesis was accepted.

Lastly, this research's seventh hypothesis (H₇) posits a significant mediating role of OC in the relationship between WEN and JS. The result after using the PLS-SEM analytic tool to confirm the analyzed data from the surveyed respondents, the findings empirically reveal that OC significantly mediates the relationship between WEN and JS, having ($\beta = 0.634$, $t\text{-value} = 15.106$), $p < .05$). Therefore, the researcher accepts the seventh hypothesis (H₇).

Table 4. 7
R-Square 'r²' (Variance Explained)

	R-square	R-square adjusted
JS	0.738	0.738
OC	0.866	0.865

Table 4.11 shows that the variance explained with and without mediator are 0.738 and 0.866, respectively. This implies that the variables under consideration with OC serving as a mediator explain a 73.8% variance in job satisfaction (JS). On the other hand, the two independent variables explain the 86.6% variance of OC.

Table 4. 8
Effect Size (f²)

Construct	JS	OC
OC	2.820	
WE		0.043
WEN		0.557

Table 4.12 presents the effect sizes of the investigated variables on the mediator (OC) and the dependent variable (JS). Using Cohen (1988) describes f^2 values of 0.02, 0.15, and 0.35 as having weak, moderate, and strong effects. It is, therefore, concluded that the effects of these

variables range from moderate to strong effects, with WE (0.043) having moderate effects on OC and WEN (0.557) having a strong effect on OC. Similarly, OC has strong effects on JS, with f^2 equaling 2.280.

Table 4. 9
Predictive *Relevance or Model Fit* (q^2)

	Saturated model	Estimated model
SRMR	0.033	0.037
d _{ULS}	1.063	1.389
d _G	0.633	0.674
Chi-square	1643.998	1711.405
NFI	0.907	0.903

This study used the Standardized Root Mean Square Residual (SRMR) to evaluate the model’s predictive significance. The SRMR is a definitive metric of fit. It is characterized as the standardized disparity between actual and anticipated correlations. It is a positively biased metric, with the bias being more pronounced in research with small sample sizes and low degrees of freedom. A zero value indicates an ideal match since the SRMR is an absolute fit metric. The SRMR imposes no cost for model complexity. A value below .08 is often regarded as an acceptable match (Hu & Bentler, 1999). Following the propositions by Hu and Bentler (1999) of SRMR less than 0.08, insight into Table 4.13 presents the SRMR value to be 0.033 for the saturated model and 0.037 for the estimated model. The SRMR for the two models was less than 0.08. Given this, the researcher concludes that the model is fit.

4.5 Summary of Hypothesis

Table 4.14 presents the summary of the investigated hypothesis.

Table 4. 10
Model Summary

Hypothesis	Relationship	Decision
H ₁	WE -> OC	Accepted
H ₂	WEN -> OC	Accepted

H ₃	OC -> JS	Accepted
H ₄	WE -> JS	Accepted
H ₅	WEN -> JS	Accepted
H ₆	WE -> OC -> JS	Accepted
H ₇	WEN -> OC -> JS	Accepted

4.6 Model Summary

Figure 4.5 presents the model summary by reporting the significant relationship established by the findings.

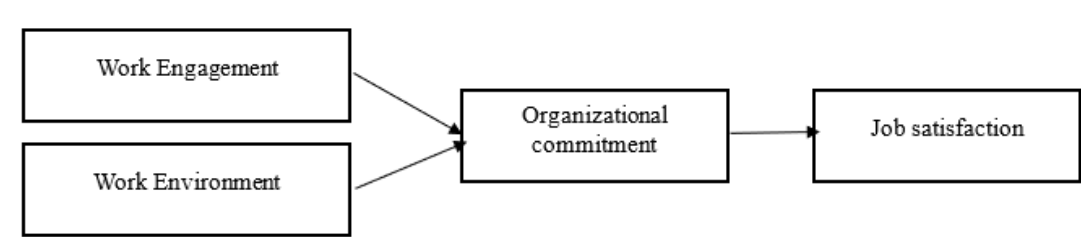


Figure 4. 9
Model Summary

4.7 Summary

This chapter analyzes the data collected in chapter three using two crucial statistical analytic tools. These are SPSS and PLS-SEM. The SPSS statistical analytic tool was used to examine the data normality and analyze the descriptive data. In contrast, the PLS-SEM was used to test the proposed research hypothesis. The PLS-SEM results show that all the hypotheses were significant.

CHAPTER FIVE

DISCUSSION, RECOMMENDATION, AND CONCLUSION

5.1 Chapter Overview

This chapter discusses the research findings in detail. Additionally, this chapter highlights the practical and theoretical contributions, followed by limitations, recommendations, and conclusions from the discussion.

5.2 Discussion on the Direct Relationships

The first hypothesis in this research posits a significant relationship between work engagement (WE) and organizational commitment (OC). Using structural equation modeling (SEM) to analyze the collected data from the respondents, the findings show that the employees surveyed perceived that the more they are engaged in their organization, the more committed they are. This implies that once engaged, they feel energized, enthusiastic, and inspired by their roles as measured using the items developed. The findings thus conform with findings from earlier investigations that are not limited to Chi et al. (2023), Chua and Ayoko (2021), Didit and Nikmah (2020), and Gota (2017).

Furthermore, the findings reveal that the surveyed employees, once they are engaged with their organizations and entrusted with their responsibilities at work, felt proud, got carried away, felt happy, and overall proud doing their responsibilities, which later enhances their commitment, as earlier reported by Ong and Johnson (2023). Given this, engaging employees to utilize their potential entirely gave them a sense of belonging, autonomy, dedication, and job security by increasing their commitment to the organizations in which they work (Koroglu & Ozmen, 2022; Radic et al., 2020; Sullivan & Al Ariss, 2022).

Similarly, this research's second hypothesis posits a significant relationship between work environment and organizational commitments among the investigated target respondents. The findings show that work environments that include but are not limited to supervisors' role in information sharing with employees, reasonable work expectations, responsibilities towards staff, and conflict resolutions, among others, significantly and positively influence employees' commitments (Al Horr et al., 2016; Karsim et al., 2023; Park et al., 2021). The findings in this research, therefore, align with observations from earlier empirical investigations that include Briner (2000), Ogbonnia (2021), and Zapf et al. (1996).

Concerning the findings from this investigation, the relationship between work environment and organizational commitment is, therefore, reinforced by supporting scholars not limited to Karsim et al. (2023), Lee et al. (2000), and Sepriandy et al. (2023). Therefore, the researcher concludes a significant relationship between work environment and organizational commitment, implying that the more favorable the work environment is, the higher the commitment level among the employees in the organization.

Moreover, the third hypothesis in this research posits a significant relationship between organizational commitment and job satisfaction. The findings after using SEM to analyze the collected data upheld this stance. The findings in this regard mean that the more committed the employees are to their jobs or the organization that employs them, the more satisfaction they derive from working for such organizations; hence, the findings attest to earlier investigations that are not limited to Al Horr et al. (2016), Koroglu and Ozmen (2022), Sullivan & Al Ariss (2022), and Stum (1998). Job commitment in terms of reasonable work responsibilities, Ong and Johnson (2023), enhanced conflict resolution (Zapf et al., 1996) and increased dedication to work, thus enhancing job satisfaction.

The empirical findings reinforce the significant relationship between organizational commitment and job satisfaction, as Taylor (2015) reported. This implies that earlier empirical investigations that include Ashraf (2020), Bayona et al. (2020), and El-Farr (2023) are confirmed. Given this, the researcher concludes that the higher the employees' commitment, the higher their job satisfaction Zhang and Glerum (2020).

On the fourth hypothesis, the researcher posits a significant relationship between work engagement (WE) and job satisfaction. The result presents a significant relationship between the observed variables. It attests to earlier empirical conclusions that a significant relationship exists between work engagement and job satisfaction (Albrecht & Marty, 2020; Chua & Ayoko, 2021; Gota, 2017). The findings reveal that the more the employees are engaged by their organization by allowing them to display professionalism, encourage autonomy, feedback, social support, work-life balance, and other engagement characteristics, the more they tend to be satisfied with the organization that engaged them (Ababneh, 2021; Han et al., 2021; Liu et al., 2022; Nguyen & Pham, 2020; So et al., 2022). Therefore, the researcher's findings conclude that a significant relationship exists between work engagement and job satisfaction.

Like the first four hypotheses, the fifth hypothesis reveals a significant relationship between work engagement and job satisfaction. The result in this regard reveals that a healthy work environment that is not limited to factors such as the top management taking responsibility for their actions, conflict resolutions among employees and management, responsibility and attitude towards staff, work-life balance, positive collaborations between employees and opportunities to improve career among others significantly influences employees job satisfaction (Al Horr et al., 2016; Hyginus, 2021; Al Horr et al. 2016; Ogbonnia, 2021; Wargocki, 2016).

On this note, the findings conform to earlier investigations that empirically conclude a significant relationship between work environment and job satisfaction (Fletcher, 2019; Jones & James, 1979; Sepriandy et al., 2023); hence, opposing views explained by scholars that is not limited to Boamah et al. (2022) who argues long working hours leads to job dissatisfaction. This is so because employees will be satisfied if the overtime is done in good faith, and with adequate and fair pay, they will be satisfied and more than willing to work for longer hours (De Ruiter & Peters, 2022).

5.3 Discussion on the Indirect Relationships (Mediating Role of Organizational Commitment)

Additionally, the research framework includes the mediating role of organizational commitments on the relationships between work engagement and work environment on job satisfaction. The findings in this regard reveal that organizational commitment among employees significantly mediates the relationship between work engagement and work engagement on their job satisfaction, confirming studies that are not limited to Al Horr et al. (2016), Hanafi and Syah (2021), Subarto, Solihin, and Qurbani (2021).

The findings imply that even though work engagement and work environments significantly influence job satisfaction, the crucial role of commitment should not be undermined (Mathieu, 1991; Singgih et al., 2020; Stum, 1998). This means that no matter how engaged or how healthy the work environment is before they can be satisfied, they must be committed to their job (Maqsood et al., 2012; Meyer & Allen, 2001; Pathan, 2023; Pradhan & Pradhan, 2015).

5.4 Research Contributions

5.4.1 Theoretical Implications of Findings

This study underscores the importance of job satisfaction in attaining critical outcomes, including work engagement, work environment, and organizational commitment, while clarifying these elements' influence on employee experiences within an organizational context. Individuals with opportunities to participate in supportive work environments typically demonstrate heightened loyalty, enhancing their job satisfaction (Korowicz & Ozmen, 2022; Radic et al., 2020). This relationship aligns with social exchange theory, which posits that employees exhibit heightened commitment and satisfaction when organizations reciprocate loyalty through favorable working conditions (Blau, 1964; Cropanzano & Mitchell, 2005). The influence of commitment on job satisfaction and employee retention is considerable, highlighting the necessity of fostering an environmentally sustainable workplace (Hanafi & Syah, 2021; Subarto et al., 2021).

The findings of this study provide additional evidence that work engagement and organizational commitment play a significant role in enhancing job satisfaction, consistent with previous research (Al Horr et al., 2016; Ababneh, 2021). Work engagement demonstrates a noteworthy positive correlation with job satisfaction, suggesting that individuals regard work as an inherently pleasurable endeavor. Experiencing activities that foster a sense of belonging within the organization enhances employee performance. This study elucidates the mediating mechanism whereby work engagement influences job satisfaction via organizational commitment (Koroglu and Ozmen, 2022). Social Exchange Theory (Blau 1964) suggests that employees exhibit increased engagement and satisfaction in response to perceptions of fairness. Cropanzano and Mitchell (2005). Reciprocity is crucial as it delineates the significance of trust and fairness, contributing to workplace satisfaction. Employees seek equality and beneficial outcomes from interactions (Polk, 2022; Cross & Dundon, 2019).

The positive relationship between work environment and job satisfaction suggests that organizations focusing on collaboration, support services, and recruit ability create human resource management practices that result in a satisfying workplace. (Fletcher, 2019; Jones & James, 1979; Sepriandy et al., 2023). Advocate for social exchange theory. The study concluded that a cooperative relationship between organizations and employees enhances employee loyalty to the organization and vice versa (Blau 1964). Organizations can enhance performance by fostering a positive work environment and implementing engaged practices, increasing employee commitment and job satisfaction. This study reinforces that fostering commitment through a balanced exchange of passion is significantly associated with job satisfaction, emphasizing the need to strategically manage these reciprocal relationships within an organization (Meyer & Allen 2001; Pradhan & Pradhan 2015).

5.4.2 Practical Implications of Findings

The research results highlight several crucial strategies organizations can implement to enhance employee engagement, commitment, and satisfaction. Creating a work environment that emphasizes and fosters employee engagement is essential for improving commitment, positively associated with increased organizational satisfaction and loyalty. Specific actions encompass the design of meaningful roles and establishing opportunities for participation and belonging while also demonstrating a sense of purpose in work, such as fostering appreciation (Koroglu & Ozmen, 2022). That increases productivity and reduces turnover; employees excited to work with their organization tend not to stick close (Chua & Ayoko, 2021).

Moreover, an improved work environment can profoundly affect employees' commitment and satisfaction, enabled by supportive leadership, attainable expectations, and efficient feedback mechanisms for conflict resolution (Lesener et al., 2019). The responsibility of managers plays

a significant role in fostering a constructive atmosphere, which includes the continuous dissemination of information, the resolution of conflicts, and the establishment of clear expectations (Karsim et al., 2023; Al Horr et al., 2016). It helps to reduce stress and the morale of jobs and establish a trustworthy culture. Training programs could also be developed for supervisors on effective communication and problem-solving, further serving these purposes as happier employees are likely to remain in an organization with excellent air quality (Ogbonnia, 2021; Wargoeki, 2016).

Finally, there is a clear enough possibility of organizational commitment as an intermediary in the relationship between work engagement and this specification on the working environment and job satisfaction. Establishing trust and the principles of justice constitute fundamental prerequisites for cultivating commitment. Organizations can establish formal initiatives designed to foster loyalty and provide opportunities for career advancement, thereby facilitating the reciprocal exchange as delineated by Social Exchange Theory (Blau, 1964; Cropanzano & Mitchell, 2005). The enhancement of long-term employee satisfaction may be realized through the methodical execution of feedback sessions, promotion procedures, and the development of inclusive policies.

5.4.2.1 Theoretical Contributions

The results of this study provide critical new perspectives on the interactions among job satisfaction, work engagement, work environment, and organizational commitment, as well as their combined impact. Individuals with higher involvement in supportive work engagements are more likely to develop strong organizational commitment, improving job satisfaction. This underscores the significance of establishing an environment that encourages active engagement and cultivates a sense of belonging, as these elements are critical in enhancing employee satisfaction and retention. Moreover, these findings underscore that job satisfaction

is not solely an outcome of advantageous work conditions but a consequence of the organization's dynamic interactions among employee engagement, commitment, and support frameworks.

Furthermore, the research enhances the application of Social Exchange Theory in elucidating workplace dynamics by demonstrating the role of reciprocal relationships in fostering employee satisfaction. Individuals within an organization who perceive that their contributions are acknowledged and valued are inclined to respond with enhanced commitment and satisfaction. This emphasizes how mutual trust and objectivity define the case for encouraging corporate commitment and increasing job happiness. According to this research, firms may boost job happiness by giving relational exchanges high importance, hence creating a fair distribution of responsibility, support, and appreciation. This method enhances staff members' devotion to their tasks. It enables the organization to be a trustworthy partner in their well-being and professional growth.

5.4.2.2 Practical Contributions

The research findings provide practical methods for firms to increase employee engagement, commitment, and satisfaction. Organizations may create increased levels of commitment by emphasizing the importance of a dynamic work environment, which significantly boosts job satisfaction and staff retention. Organizations may, for instance, design roles that facilitate substantive engagement with employees' responsibilities, thus fostering a sense of belonging and purpose. Moreover, recognizing and encouraging achievements can cultivate a motivating atmosphere that improves employee loyalty and productivity while reducing turnover rates. Individuals demonstrating elevated levels of engagement are more predisposed to dedicate

themselves to their responsibilities, thereby yielding benefits for both their advancement and the collective efficacy of the organization.

Enhancing the work environment by promoting supportive leadership and equitable practices simultaneously strengthens employees' commitment. Leaders can foster conducive work environments by actively disseminating information, clearly defining expectations, and facilitating the resolution of conflicts. Such practices facilitate decreased occupational stress and foster an environment defined by trust. The education of managers in effective communication and problem-solving plays a crucial role in achieving these objectives, thereby cultivating a work environment that enhances employee commitment. Finally, developing organizational commitment via meticulously planned programs that offer opportunities for professional progress and equitable remuneration helps to foster a culture of trust and reciprocity. These approaches boost employee morale, promote long-term loyalty, and strengthen an organization's reputation.

5.5 Limitations and Recommendations

A weakness of this research is the reliance on self-reported data, which may introduce biases, such as social desirability bias, where respondents might inflate their involvement or satisfaction levels. This emphasis on subjective answers can restrict the objectivity of the results since perceptions may not necessarily represent actual actions or experiences in the workplace. Additionally, the study's emphasis on specific organizational settings or sectors may constrain the generalizability of the findings across varied contexts. Therefore, future research might benefit from adopting objective indicators, such as performance metrics or third-party assessments, to give a more thorough view of involvement, commitment, and satisfaction.

In order to improve outcomes and expand their applicability, subsequent research ought to explore the implementation of a longitudinal design to effectively capture variations in employee involvement, commitment, and satisfaction over time. This would facilitate identifying potential causal relationships and elucidate how these parameters evolve in response to organizational changes. Furthermore, expanding the sample to encompass a broader range of sectors and job types may enhance the generalizability of the findings, thereby providing insights pertinent to a broader array of organizational contexts. Applying qualitative methodologies, including interviews or focus groups, can provide a comprehensive understanding of the nuanced factors influencing employee commitment and satisfaction. This approach offers organizations more customized strategies for improving workplace engagement and retention.

5.6 Conclusion

In conclusion, this research highlights the significant influence of work engagement, supportive work environments, and organizational commitment in determining employee job satisfaction. The findings elucidate the beneficial effects of engagement and mutual organizational support, offering significant insights into cultivating a dedicated and contented workforce. The findings underscore the significance of fostering a professional environment that appreciates employees' contributions and facilitates their development, as this mutual reinforcement promotes elevated levels of commitment and satisfaction. In conclusion, the findings indicate that organizations have the potential to improve job satisfaction and employee retention through the deliberate cultivation of a culture characterized by engagement, trust, and recognition, which in turn contributes to the establishment of a positive and productive work environment.

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APPENDIX A

Questionnaire

Dear respected respondent,

I am Bankole Samson, Business Management student in University Utara Malaysia. I am inviting you to participate in my study to fulfil the requirements for project paper. The title of this study is the effect of work engagement, work environment and organizational commitment on job satisfaction among university lecturers in northern Nigeria. This study aims to investigate the relationship between work engagement and job satisfaction among university lecturers in Northern Nigeria.

Your participation in this study is entirely on voluntary basis. If you decide to participate, fill in questionnaire that will take approximately 10 minutes. Your responses are strictly confidential and will be solely used for the scholarly purposes. The results of this study will only be reported on a group basis. If you have any question about the study, kindly contact me based on the information provided below.

Thank you for your valuable time and cooperation.

Sincerely,

Name: Bankole Oluwasegun

Faculty: Postgraduate Studies Unit, College of Business

University name: University Utara Malaysia

Email: Abasamjan262021@gmail.com

SECTION A: DEMOGRAPHIC PROFILE

To understand the demographic composition of respondents, kindly complete the following information. The information provided will remain confidential and only for the purpose of this study.

Instruction: Please tick (/) and fill the appropriate response and for each question.

1. Gender

☐ Male

☐ Female

2. Age

☐ 20 and below

☐ 21 - 30

☐ 31 - 40

☐ 41 - 50

☐ 51 and above

3. Education Level

☐

☐ Diploma and equivalent

☐

☐ Degree

☐ Master

☐ PHD

☐ Others

Please state: _____

4. Department/Faculty: _____

5. Duration of Employment

☐ Less than 1 year

☐ 1 – 2 years

☐ 3 – 4 years

☐ 5 – 6 years

☐ 7 – 8 years

☐ 9 – 10 years

☐ More than 10 years



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SECTION B: JOB SATISFACTION (Ramli, A.H. 2019)

“Job satisfaction is defined as the extent to which an employee feels self-motivated, content & satisfied with his/her job.” (Tomar & Kapri, 2019)

Instruction: Please read the following statements carefully and give response to what extent you disagree or agree with each statement. Please use the following scale and **TICK** the number that corresponds to your response or feeling about each question.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1. I can keep busy at any time.	1	2	3	4	5
2. I got a chance to get ahead in my work.	1	2	3	4	5
3. I had the opportunity to be responsible for determining and planning my work.	1	2	3	4	5
4. I am satisfied with the company policy and its application to employees.	1	2	3	4	5
5. My salary and duties are balanced.	1	2	3	4	5
6. My job security is guaranteed.	1	2	3	4	5

SECTION C: WORK ENGAGEMENT (Ramli, A.H. 2019)

“Work engagement refers to a positive, affective-motivational state of high energy combined with high levels of dedication and a strong focus on work.” (Schaufeli & Salanova, 2010)

Instruction: Please read the following statements carefully and give response to what extent you disagree or agree with each statement. Please use the following scale and **TICK** the number that corresponds to your response or feeling about each question.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1. I feel burst with energy when I am working in this organization.	1	2	3	4	5
2. I feel strong and vigorous working in this organization.	1	2	3	4	5
3. I feel enthusiastic about my work in this organization.	1	2	3	4	5
4. My roles in this organization inspires me.	1	2	3	4	5
5. I feel enthusiastic to go to work when I get up in the morning.	1	2	3	4	5
6. I feel happy when I am working intensely in this organization.	1	2	3	4	5
7. I am proud of the work I do in this organization.	1	2	3	4	5
8. I am immersed in my work in this organization.	1	2	3	4	5
9. I get carried away when I am working in this organization.	1	2	3	4	5

SECTION D: WORK ENVIRONMENT (Ramli, A.H. 2019)

“Work environment refers to the elements that comprise the setting in which employees work and impact workers.” – Glassdoor Team, 2021

Instruction: Please read the following statements carefully and give response to what extent you disagree or agree with each statement. Please use the following scale and **TICK** the number that corresponds to your response or feeling about each question.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1. The supervisor gave me enough information related to work	1	2	3	4	5
2. Supervisors provide reasonable expectations for my work.	1	2	3	4	5
3. I believe in direct superiors with fellow colleagues.	1	2	3	4	5
4. My direct supervisor has responsibilities towards his staff.	1	2	3	4	5
5. The head of the department at my work place is trusted by top management.	1	2	3	4	5
6. Top management in my workplace has been responsible for the overall organization.	1	2	3	4	5
7. I received training for career advancement.	1	2	3	4	5
8. I received training to improve work efficiency.	1	2	3	4	5
9. I have managed my work time well.	1	2	3	4	5
10. The work environment where I work is in line with my expectations.	1	2	3	4	5

11. Fellow co-workers have trusted each other at work	1	2	3	4	5
12. My immediate supervisor is able to resolve conflicts or problems encountered at work.	1	2	3	4	5
13. I have the opportunity to improve your career and competence in general.	1	2	3	4	5
14. My immediate supervisor has good management skills and expertise in his profession.	1	2	3	4	5
15. Communication between me and my immediate supervisor was well established.	1	2	3	4	5
16. I am satisfied with the existing human resource management and communication between the employees where I work.	1	2	3	4	5



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SECTION E: ORGANIZATIONAL COMMITMENT (Mowday, Steers & Porter, 1979)

"Organizational commitment refers to the level of engagement and dedication team members feel toward their individual jobs and the organization." – Indeed, Editorial Team, 2023

Instruction: Please read the following statements carefully and give response to what extent you disagree or agree with each statement. Please use the following scale and **TICK** the number that corresponds to your response or feeling about each question.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1. I am willing to put great deal of effort beyond expectation to help my organization to be successful.	1	2	3	4	5
2. I talk positively about this organization to my acquaintances.	1	2	3	4	5
3. I feel loyal to this organization.	1	2	3	4	5
4. I would accept any work task in order to keep working in my organization.	1	2	3	4	5
5. This organization has the same value as mine.	1	2	3	4	5
6. I am proud to tell others that I am part of this organization.	1	2	3	4	5
7. I would remain in this organization even though I have better job offer.	1	2	3	4	5
8. This organization inspire me to improve my work performance.	1	2	3	4	5

9. It would take very big change in my present circumstances to cause me leaving this organization.	1	2	3	4	5
10. I am very glad that I chose this organization to work.	1	2	3	4	5
11. There is so much to be gained by sticking with this organization.	1	2	3	4	5
12. I often find it is easy to agree with this organization policies on important matters related to its employees.	1	2	3	4	5
13. I really care about the future of this organization.	1	2	3	4	5
14. For me, this organization is the best possible organization to work.	1	2	3	4	5
15. Deciding to work in this organization is the best decision I made.	1	2	3	4	5



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