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THE IMPACT OF WORK ENVIRONMENT ON CAREER SATISFACTION

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INTRODUCTION

The Relevance of the research the concept of work environment as its impact career satisfaction in relation to employee's health and wellbeing is necessary to be studied and understood in this present-day workplace. Work Environment is understood differently across disciplines and fields of study from Organizational Psychology, Occupational Health, Public Health and Management Literature. This research work will examine the relationship of work environment characteristics as they affect or contribute to an employee's career satisfaction.

As much as there are factors that can impact career satisfaction, one of which is leadership style which is able to have a positive effect on an employee wellbeing, burnout as a stressor factor while the Job Demand-Resources model analyzes the factor of work environment better (Nielsen et al., 2017a). A widely used concept in defining the relationship that exists between the work environment characteristics and how they affect career satisfaction is the Job Demands-Resources (JD-R) Model which was originally used to explain burnout but now accounts for various employee wellbeing. The Job Demand Resources Model did categorize job characteristics into Job Demands and Job Resources (Schaufeli & Bakker, 2004). Job demand is the totality of psychological, physical, and emotional efforts required by the job while Job resources include aspects instrumental to accomplishing the job successfully, buffer the workers from job demands, or support personal and professional growth on the job (Bakker & Demerouti, 2017). Employee engagement has a major influence on job satisfaction, according to Hidayat (2023), who also noted that engaged workers are more likely to exhibit high levels of job satisfaction and performance. This study highlights the importance of creating an engaging work environment by providing important insights into the direct relationship between engagement and positive employment outcomes. The idea of employee engagement, which recent research indicates is an essential bridge connecting many organizational elements with the outcome of job happiness, is the focus of this conversation. The seminal study by AL-Tit and Hunitie (2015) examines the function of employee engagement as an independent variable and demonstrates how it can enhance the influence of several elements on job satisfaction, including organizational support, career progression prospects, and employee communication. Their findings, which are supported by a sizable sample of 238 participants from Jordanian academic institutions, emphasize the complexity of involvement and its important impact on job satisfaction.

This research work will focus on the research gap created by the previous research work like being able to identify to what extent burnout is able to impact employee performance.

The problem posed in this research is what are the work environment characteristics that can have an impact on career satisfaction.

The **research aim** is to examine the intricate relationships that exist between employee engagement, career happiness, and the work environment. The goal of the study is to examine how employee involvement—which includes emotional, cognitive, and physical aspects—affects overall job satisfaction across a range of work environments. The study includes an understanding of the critical role that career development opportunities—particularly in the areas of management and organizational procedures—play in fostering an environment that promotes engagement and, consequently, job satisfaction.

The research object is the impact of work environment on career satisfaction.

The research Tasks:

- a. To determine and analyze specific factors of the work environment that significantly contribute to career satisfaction.
- b. To develop a conceptual model for career satisfaction based on the impact of work environment factors.
- c. To empirically test the model revealing the impact of work environment factors on career satisfaction.

Research methods – the analysis of scientific literature was used to explain the theoretical aspect while SPSS was used for the empirical research of the impact of work environment on career satisfaction.

A structured quantitative questionnaire will be used to evaluate the impact of work environment on ~~car~~ satisfaction.

Data will be collected from a minimum of 250 respondents during the quantitative research which will be analyzed using questionnaire, descriptive and inferential (correlation and regression analysis) statistics will be used to achieve this goal. The data will be processed by the SPSS program. The reliability indicators of the questionnaires were checked by calculating Cronbach's alpha coefficients, to access employees career satisfaction. Regression analysis was appropriate for this research because the study's hypothesis was that career satisfaction is influenced by one's workplace environment.

The structure of research

The theoretical component is divided into five subsections in discussing and analyzing the conceptualization of work environment characteristics as its impact career satisfaction. Also, the Job Demand-Resources Model is being analytically examined to model how it explains the work characteristics.

The methodological section will delve into the application of a quantitative methodological approach of research methods to better analyze these work environment factors.

The third part of the study will show the results of the quantitative research and describes the relationship found and other research insight that were assessed through data analysis.

The last part presents the conclusions obtained during the conducted research and presents practical recommendations

1. LITERATURE REVIEW ON THE IMPACT OF WORK ENVIRONMENT ON CAREER SATISFACTION

1.1. Conceptualization of work environment

In the past, previous industrial era research about work focused predominantly on the aspect of human labor efficiency in return for monetary compensation, as well as the circumstances surrounding these transactional interactions. Recent research about work has shown to include industrial, psychological, and social aspects of life (van der Laan et al., 2023).

Work is defined as the process of organizing and directing workflow, operations, and employees to meet company goals. The primary goal of management is to create an environment that lets employees work efficiently and productively. A solid organizational structure serves as a guide for workers and establishes the tone and focus of their work (Kaehler & Grundei, 2019) The innovations that have come into being in the present-day workplace still hasn't replace the importance of personnel as the one that that do the work.

The concept of work environment is wide and cuts across several disciplines. From Work as a source of livelihood where one earns a living, to the totality of the conditions and circumstances under which this livelihood is being earned. Work Environment is understood differently across disciplines and field of studies. Organizational Psychology, Occupational Health, Public Health and Management Literature might have different views and definitions of Work environment, but one key factor found in all definition is the totality of work factors and circumstances under which work is carried out depending on the discipline, work environment is therefore simply the environment in which we work (Allvin & Aronsson, 2003). To perform or carry out work involves compulsorily a worker, a worker is the person carrying out the job; known widely in the management and human resources field as personnel. The health and wellbeing of this personnel is of essence and importance, this is where the practice of occupational health comes into play ("Work Environmental Factors," 2017). The work environment is characterized by the totality of the factors found in the Job demand (high work pressure, burnout, work overload) and in the Job Resources (job autonomy, social support, performance feedback, quality of relationship with

supervisor, appreciation) as it is established in the Job Demand-Resources Model Theory (Demerouti, 2015). Recognizing that the work environment is a complex and multifaceted concept that encompasses various dimensions, each of which influences employees' experiences and outcomes will make room for a better exploration of the concept. There are dimensions to work environment, Physical Dimension, Psychological Environment, Social Environment, Technological Environment, Cultural and Organizational Environment, Virtual and Remote Work Environment. All dimensions of work environment are interwoven and have its impact on career satisfaction.

The physical dimension of work refers to the influence of the physical environment on employees' performance, satisfaction, and overall job attitudes. Research has shown that physical work environments can have both positive and negative effects on employees. It highlights the need to understand the influence of environmental stimuli on employees within their physical work environment and its effect on their satisfaction and loyalty. Factors such as the design of the workspace, the arrangement of furniture, the quality of lighting, and the presence of open or private areas can all impact employees' creativity, collaboration, and communication (Tynes et al., 2017). Additionally, the physical work environment can affect employees' motivation and subsequent performance, with a comfortable and pleasant environment leading to higher levels of productivity.

Evaluating physical settings using dimensions such as security and shelter, social contact, symbolic identification, task instrumentality, pleasure, and growth can help in understanding the impact of the physical environment on work. The social dimension of the work environment encompasses the relationships, interactions, and cultural elements that shape employees' experiences and well-being. A positive social environment is crucial for fostering employee engagement, collaboration, and overall job satisfaction. The social dimension of the work environment is an important factor that influences various aspects of organizational performance and employee well-being. Studies have shown that the social work environment has a positive and significant influence on employees' performance (Cabral, 2021). It has been found that the quality of relationships among employees, which is an essential element of the social work environment, plays a crucial role in supporting the quality of employees' performance.

Additionally, the social work environment has been found to have a relatively strong relationship with the development of employee well-being in activity-based work environments. The social dimension of the work environment has been identified as a significant mediator for the incidence of behavioral risk factors, such as nonmoderate alcohol consumption, smoking, and leisure-time

physical inactivity (Lindeberg et al., 2022). Employee engagement as a social factor of work environment refers to the level of commitment and involvement that an employee has towards their organization and its values. It is a positive attitude held by employees towards the organization, and it is connected to both the job and the organization. Engaged employees are emotionally attached to their organization and highly involved in their job, going beyond their employment agreement (Bailey et al., 2017). Engagement has been defined and measured in various ways, with the dominant conceptualization being the Utrecht Group's 'work engagement' construct and measure. The field of engagement has been theorized within the 'job demands-resources' framework, which focuses on the interaction between job demands and resources. This being a relational proof between the work environment and career satisfaction (Bailey et al., 2017). Theories on engagement have largely been set at the individual level, reflecting its roots within positive psychology.

The Utrecht definition of engagement has been operationalized through measures of cognitive and emotional engagement, as well as behavioral engagement, providing a comprehensive understanding of engagement. The Utrecht Group's measure of work engagement assesses various dimensions of engagement, including cognitive, emotional, and behavioral aspects. This measure extends the notion of engagement beyond the strict boundaries proposed by the Utrecht Group, incorporating additional dimensions of engagement (Bailey et al., 2017). The Utrecht Group's 'work engagement' construct includes dimensions of vigor, dedication, and absorption, reflecting a positive, fulfilling, and work-related state of mind. Every dimension of the work environment has its own impact on career satisfaction.

Looking at the psychosocial dimension of the work environment, it is the work environment that impact the psychological and social wellbeing of employees. Leadership, power distribution, group psychology, conflict management, and the interaction between stress/health and work situation are some of the factors that contribute to this dimension of work environment. Previous studies have been able to show that there exists interaction among the psychosocial elements of the work environment. The dimension of psychosocial work environment accounts for the mental wellbeing of an employee as no employee can perform optimally if not in the right mental state. Research has shown employee performance to be depleted because of imbalanced mental health (Elovainio et al., 2022). Psychosocial work environment refers to the social and psychological aspects of the workplace that can impact an employee's mental health and well-being. It encompasses factors such as the relationships between coworkers, the level of support and 9

communication within the organization, the workload and job demand, and the overall organizational culture (Martin et al., 2016). The psychosocial work environment can have a significant influence on employee mental health outcomes, including stress, burnout, and psychological distress. According to (Martin et al., 2016), a multilevel approach to understanding the psychosocial work environment which involves considering individual, workgroup, organizational, and broader societal factors that can interact and contribute to employee mental health can help to understanding this concept better. The influences of psychosocial work environment on mental health comes from exposure to certain psychosocial features measured as individual employees' perceptions of their job and/or work environment (Martin et al., 2016). The broader umbrella for psychosocial work environment being the occupational health practice constitutes of other elements in respect to career satisfaction which a major contributor is the Job Demand-Resources Model that will be discussed in details as well. Conflict management as an element under the psychosocial dimension of work environment defined conflicts to be the disagreements that occurs in the workplace.

(Pembi et al., 2023) defined Conflict management is a process of solving problems that arise from conflicts between individuals or groups with incompatible aims, interests, or values. It involves identifying and addressing the underlying issues causing the conflict and finding ways to improve communication and relationships. Conflict management can be approached through various strategies, including negotiation, mediation, facilitation, and other peaceful measures. (Rispen & Demerouti, 2016) distinguishes between task, relationship, and process conflicts. Task conflicts are disagreements that arise over task-related issues. A good example is when two coauthors disagree on the theoretical framework for their research work or study. Relationship conflicts are about issues unrelated to the task that deal with personal values and issues (e.g., political views) underlying people's relationships in the workplace. Process conflicts deal with logistical issues related to the task. It was important to distinguish the types of conflicts because different types of conflict have been related to different outcomes. A workplace conflict not properly managed or resolved which did linger for long, when people perceive the situation as threatening, negative emotions and other stress reactions are likely to set in.

(Rispen & Demerouti, 2016) defined Passive negative emotions are negative emotional states that individuals experience because of conflict events at work. These emotions include feelings of guilt and sadness. This is the result of workplace conflict that has lingered for long. While there can be other measures to take to in resolving workplace conflict, conflict detachment strategy is

seen as a good strategy to use. Conflict detachment is a coping strategy that involves mentally distancing oneself from a conflict event. It refers to the ability to detach from the negative emotions and thoughts associated with a conflict experience, allowing individuals to refocus their attention on their work (Rispen & Demerouti, 2016). Conflict detachment, as a coping strategy, can alleviate negative emotions by enabling individuals to mentally disconnect themselves from a conflict event, reducing the intensity of their emotional response. As a measure to resolving conflict in the workplace; promoting positive communication, problem-solving skills, and providing support for employees can greatly contribute to effective conflict management in the workplace.

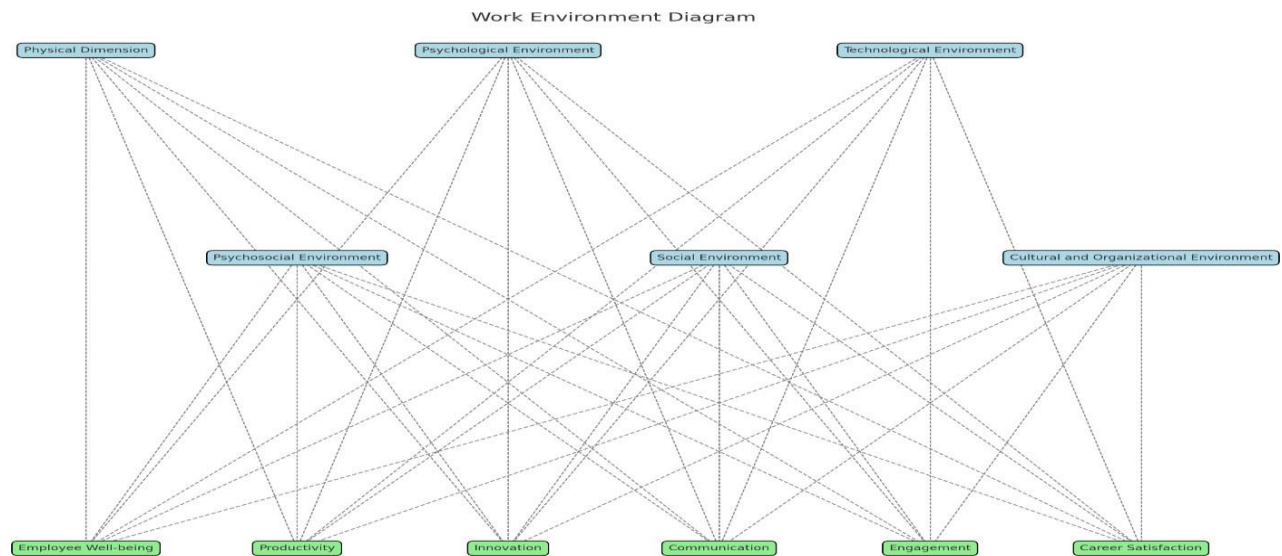


Figure 1. Work Environment Factors

source: created by author based on (Rispen & Demerouti, 2016)(Pembi et al., 2023)(Martin et al., 2016)(Elovainio et al., 2022)(Bailey et al., 2017)(Cabral, 2021)(Tynes et al., 2017)(Kaehler & Grundei, 2019)(van der Laan et al., 2023)(Allvin & Aronsson, 2003)

The interrelationship between the various dimensions of work environment and its outcome as influenced by physical, psychosocial, psychological, social, technological, and cultural/organizational dimensions of work environment and how they impact key aspects of workplace dynamics such as employee well-being, productivity, innovation, communication, engagement, and career satisfaction.

1.2. Job demands-resources model

The Job Demands-Resources Model is a theoretical framework used to describe the relationship between work characteristics and wellbeing. Wellbeing as the state of right frame of mind, where no goal-oriented work can be done when not in the right frame of mind. The JDR model provides a flexible theoretical tool for conceptualizing key aspects of the work environment, explaining and predicting a wide range of work-related outcomes, including stress, burnout, work engagement, organizational commitment, job satisfaction or productivity (Bakker & Demerouti, 2017). According to JD-R theory, the degree to which employees are energetic and enthusiastic about their work, and highly concentrated on their work (i.e., engaged), is greatly affected by the work environment.

The JDR Model did propose 2 broad categories of job characteristics that relatively independently influence employee wellbeing which are Job Demands and Job Resources. Job Demands are defined as job aspects that require sustained effort and that are associated with physiological and psychological costs. According to the JDR model, job demands can negatively affect employee well-being, leading to decreased job satisfaction and increased burnout. Job Resources are defined as factors functional in achieving work goals, reducing job demands or stimulating personal growth and development (Bakker & Demerouti, 2017).

(Mudrak et al., 2018) Defined Job Resources as the various factors in the work environment that can support and facilitate an individual's job performance and well-being. While according to (Scanlan & Still, 2019) which defined Job Resources as the various factors or elements present in the workplace that can contribute to the well-being and satisfaction of employees. Considering the concept of well-being and job satisfaction as factors of Job Resources. Well-being refers to a person's overall state of being and their quality of life. It encompasses various aspects such as physical, mental, and emotional health, as well as social relationships and satisfaction with life. Well-being is often associated with feelings of happiness, contentment, and fulfillment, as well as positive relationships and a sense of purpose in life. It is important to note that well-being is a subjective experience and can vary from person to person. Some definitions of well-being also emphasize the importance of positive mental health in contributing to overall well-being (Keller, 2020).

Overall, well-being is a multidimensional concept that encompasses various aspects of an individual's life and is closely linked to their mental health and happiness. Factors such as genetics, upbringing, life experiences, social support systems, Personal preferences, interests, priorities, cultural and societal influences play a role in determining what brings happiness and

fulfillment to each person, leading to different definitions and experiences of well-being, further contributing to the variation among individuals. Well-being is a state of being mentally healthy according to (Davies et al., 2016), in the comparison of mental health and wellbeing; WHO defined a healthy person to be someone in a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity. Defining wellbeing from a social perspective is the ability of the individual to create and participate in close and emotional social bonds with other people, establishing the fact that an increase in job demands will have its own effect on employee's health and wellbeing (Stenberg, 2016). It is possible for an employee state of wellbeing to either improve or deteriorate as a result factors as a meaningful work, an engaging work life, a healthy life and positive work environment contributing to the improvements or factors as sickness, a boring job and being socially isolated contributing to the reverse (Lin, 2022) An increase in an employee well-being is if something makes he or she feels better in the fundamental sense, measured by how well life goes on for the person who lives it. What can advance an employee well-being is able to advance their true interest in relation to career satisfaction (Keller, 2020). Delving into the concept of job satisfaction, Job Satisfaction cannot be attained if the entire work environment of an employee is not promoting mental health and wellbeing. Job satisfaction refers to one's general emotional response towards his/her job resulting from their own appraisal or job experience and includes various dimensions and factors. Job satisfaction is also defined as one's tendency or positive feelings toward one's job(Calaguas, 2017).

Job satisfaction refers to an individual's overall evaluation of their job and the extent to which they find it fulfilling and rewarding. It is a subjective measure that reflects an individual's feelings and attitudes towards their work (Judge, TA 2017). Job satisfaction has been a central focus of research in work psychology for over a century, with advancements in methods and theory contributing to a deeper understanding of this construct. It is often assessed through self-report measures that capture various dimensions, such as satisfaction with pay, coworkers, and opportunities for growth. Job satisfaction has been linked to various outcomes, including job performance, organizational commitment, and employee well-being. It is influenced by a range of factors, including job characteristics, organizational culture, and individual differences. Job satisfaction plays a crucial role in shaping individuals' experiences and behaviors in the workplace (Abelha et al., 2018). Job satisfaction is unambiguously a positive emotional condition or sensation resulting from a job or profession therefore, it affects individuals' attitudes towards their jobs. Job satisfaction as an important factor of the JDR Model as research has shown that job

dissatisfaction usually leads to absenteeism, reduced efficiency, staff turnover, physical and mental illness, as well as burnout (Abelha et al., 2018). The rate at which an individual feel content, the more satisfied they are with their job. As a result of this, they exhibit more positive energy with the surrounding environment and improve their communication with the people around them. This and more lead to greater satisfaction with the work environment and colleagues, and job satisfaction increases accordingly.

Some of the factors that influences job satisfaction includes the following:

- a. Job characteristics: The nature of the job itself, such as the level of autonomy, task variety, and skill utilization, can impact job satisfaction. (Hackman, J. R, & Oldham, G.R, 1976)
- b. Organizational culture: The values, norms, and practices within an organization can influence job satisfaction. A positive and supportive culture that promotes employee well-being and growth is likely to enhance job satisfaction. (Schein, E. H. 2010)
- c. Supervision: The quality of supervision and the relationship between employees and their supervisors can significantly impact job satisfaction. Effective communication, support, and feedback from supervisors contribute to higher levels of job satisfaction. (Judge, T.A., & Bono, J. E 2001)
- d. Pay and benefits: Fair and competitive compensation, along with additional benefits, can influence job satisfaction. Employees who feel adequately rewarded for their work are more likely to be satisfied. (Lawler, E. E. 1971)
- e. Opportunities for growth and development: The availability of opportunities for career advancement, training, and skill development can contribute to job satisfaction. Employees who have opportunities to learn and grow in their roles are more likely to be satisfied. (Noe, R. A. 2013)
- f. Work-life balance: The ability to maintain a healthy balance between work and personal life is important for job satisfaction. Organizations that support work-life balance through flexible work arrangements and supportive policies can enhance job satisfaction. (Greenhaus, J. H., & Powell, G. N. 2006)

- g. Social support: Positive relationships with coworkers and a supportive work environment can impact job satisfaction. Having a sense of belonging and camaraderie at work contributes to higher levels of job satisfaction. (Cohen, S., & Wills, T.A 1985)

In as much there could be more factors to job satisfaction, the few mentioned are pivotal to contribute to the concept.

The other factors of Job Resources to be considered are Rewards and recognition, Job control, Feedback, Participation.

Rewards and recognition refer to the acknowledgment and appreciation given to employees for their contributions and achievements in the workplace (Scanlan & Still, 2019) suggest that providing employees with rewards and recognition for their work can contribute to lower levels of burnout and increase job satisfaction. Job control refers to the degree of autonomy and decision-making authority that employees have over their work tasks and processes. It is a measure of the extent to which employees can influence and control their work environment (Scanlan & Still, 2019). Feedback refers to the information, guidance, or evaluation provided to employees regarding their performance or work-related behaviors. It is an essential component of the job resources available to employees in the workplace. This suggests that regular and constructive feedback about their work can contribute to positive outcomes for employees. Providing employees with feedback allows them to understand their performance, make improvements, and feel valued in their roles (Scanlan & Still, 2019). Participation refers to the involvement and active engagement of employees in decision-making processes and activities within the workplace. By involving employees in decision-making processes, organizations can empower their employees, enhance their sense of ownership and control, and create a more positive work environment. Engagement in the context of this research functions as a key positive outcome of adequate job resources and balanced job demands. It signifies an employee's psychological state characterized by vigor, dedication, and absorption in their work. Engagement is depicted because of supportive job resources like rewards and recognition, job control, feedback, and participation. These resources foster a work environment where employees feel valued, supported, and empowered, leading to higher levels of engagement. This heightened engagement is beneficial for both the individual and the organization, as it is associated with increased productivity, better job performance, and lower turnover rates.

Job demands factors and characteristics did vary across work sectors according to but research has been able to prove that job demand factors require efforts and all are associated with a type of cost. Simplifying the concept of Job demands, research has shown the following:

- a. High levels of workload, time pressure, and responsibility are examples of challenge stressors that can be seen as "good" stressors but may also be experienced as hindrance demands depending on the context.
- b. Emotional job demands, such as dealing with difficult or emotionally demanding situations, can be particularly detrimental when combined with high workload.
- c. Performance expectations can act as internal challenge demands, motivating employees to increase effort at work.
- d. Job demands can accumulate and interact with each other, potentially leading to negative effects on well-being. For example, high workload can strengthen the negative impact of emotional job demands on sickness absenteeism.
- e. Job demands can vary in their impact depending on individual and contextual factors and may be appraised differently by different individuals.
- f. Job demands can be experienced as both challenging and hindering, and the conditions under which they act as hindrances versus challenges may vary.

These characteristics highlight the complex nature of job demands and the need for organizations to consider their impact on employee well-being and performance.

The challenge stressors of job demand refer to the aspects of a job that are perceived as demanding but are seen as positive and rewarding experiences. The job demand stressors can motivate employees to perform at their best and enhance their job satisfaction. An example of challenge stressors includes time pressure (need to complete tasks or meet deadlines within a limited timeframe, often leading to increased stress and pressure.), responsibility (where employees are required to handle a large volume of tasks and responsibilities, often with tight deadlines and limited resources.) and high levels of workload (where individuals are accountable for the outcomes of their work and have a significant impact on the success or failure of a project or task). The perception of these challenge stressors varies depending on the context it is being used, because what is perceived as a challenge for one person can be hindrance to another. Burnout and Job Satisfaction are two major used most frequent indicators of mental health and wellbeing. A widely used concept in defining the relationship that exists between the work environment characteristics and how they affect career satisfaction is the Job Demands-Resources

(JD-R) Model which was originally used to explain burnout but now accounts for various employee wellbeing. The Job Demand Resources Model did categorize job characteristics into Job Demands and Job Resources (Bakker & Demerouti, 2017)

Burnout according to (Bakker & Demerouti, 2017) refers to a state of chronic physical and emotional exhaustion that is often caused by prolonged exposure to high levels of job demands and a lack of sufficient job resources. Burnout is characterized by feelings of cynicism, detachment, and a reduced sense of personal accomplishment and can have detrimental effects on both individuals (in relation to career satisfaction) and organizations (in relation to organizational goals), leading to decreased job satisfaction, increased absenteeism, and reduced productivity. A few highlights of the symptoms of burnout includes:

- a. Chronic physical and emotional exhaustion, characterized by feelings of fatigue and depletion.
- b. Cynicism and detachment towards work, resulting in a negative attitude and reduced engagement.
- c. Reduced sense of personal accomplishment and decreased self-efficacy in relation to work tasks.
- d. Increased irritability and frustration, leading to conflicts and difficulties in interpersonal relationships.
- e. Decreased job satisfaction and motivation, resulting in a lack of interest and enthusiasm for work.
- f. Physical symptoms such as headaches, sleep disturbances, and gastrointestinal problems.
- g. Impaired cognitive functioning, including difficulties with concentration, memory, and decision-making.

Occupational health and wellbeing measurement being the bedrock for the application of Job Demands-Resources Model, its usage in the context of this research would be to measure how work environment impact career success considering work environment factors.

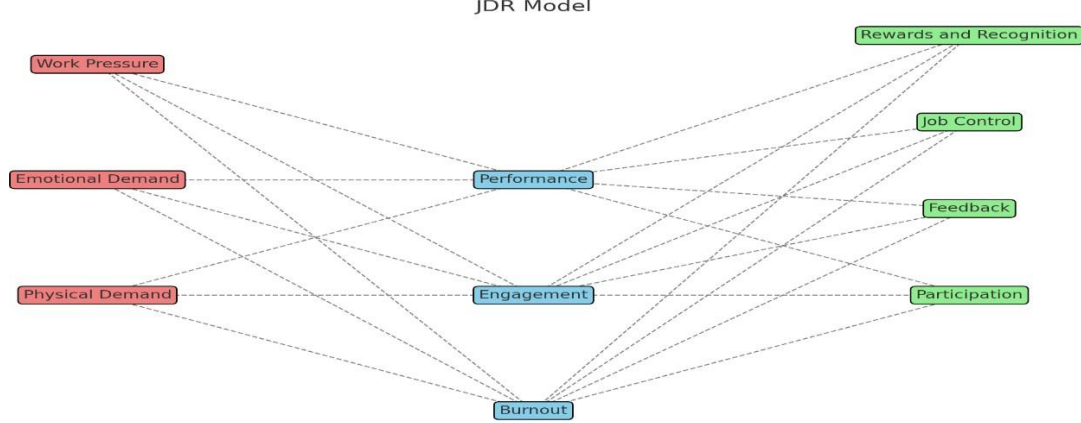


Figure 2. Job Demand and Resources Factors

Source: created by author based on (Bakker & Demerouti, 2017)(Scanlan & Still, 2019)(Abelha et al., 2018) (Judge TA,” 2017)(Calaguas, 2017)(Lin, 2022)(Keller, 2020)(Davies et al., 2016)(Mudrak et al., 2018)

The interaction that exists between the different demands and job resources depicting the outcomes of these factors. Depicting that high job demands may lead to burnout if not balanced with sufficient job resources like feedback and job control. That job resources can buffer the impact of job demands on burnout and can also directly contribute to better performance and higher engagement.

1.3. Employee Engagement.

Employee engagement, as defined by the Chartered Institute of Personnel and Development in 2024, is the physical, cognitive, emotional, and devotional relationship that workers have to their professions through interactions within their organization. (Lipson 2019) demonstrated that engaged workers typically produce more, feel more satisfied with their jobs, and improve the overall culture of any given organization.

In the subject of organizational behavior, employee engagement is a multifaceted notion that encompasses an employee's intense passion, commitment, and interest in their work-related duties. The degree to which an employee is fully committed to their work, devotes time and energy to it, and acknowledges its significance as an integral part of their entire life is known as employee engagement.

According to Shantz et al. (2016), employee engagement is the degree to which workers exhibit mental acceptance and investment in their work, demonstrating their emotional and mental dedication to it and making it a significant aspect of their entire work-life narrative. A key idea in organizational psychology, employee engagement is the deep bond and commitment that workers have to their jobs and employers. Employee engagement was first defined by (Kahn, 1990) as the process through which an employee 18 completely expresses and uses their physical, cognitive, and emotional capabilities in the course of their

work. This foundational perspective has made it possible for subsequent research to explore the intricate nature of engagement, as well as its contributing variables and outcomes.

A commonly accepted definition of employee engagement is a positive and fulfilling mental state connected to work that is characterized by Vigor, dedication, and profound participation. This definition has been expanded upon by subsequent study (Kahn's research, Schaufelu, Salanova, Gonzalez-Roma, and Bakker 2002). Significant research into the causes and effects of engagement has been made possible by the development of the employee engagement scale construct, which highlights how it differs from related ideas like work satisfaction and organizational commitment. Numerous studies have consistently demonstrated that employee involvement improves a variety of organizational factors, including productivity, retention, and profitability. According to research by Harter, Schmidt, and Hayes (2002), engaged workers contribute significantly to the success of the company by exhibiting higher levels of creativity, customer service, and general productivity.

Building trust within the organization is crucial to encouraging employee engagement. Employee confidence in leadership is essential for them to feel comfortable fully committing to their duties, which in turn raises their level of engagement, claim Driks and Ferrin (2002). Numerous studies have examined the relationship between job satisfaction and employee engagement in detail, and the results show that the two ideas interact in a complex way. While engaged people tend to be happier at work, this isn't always the case, indicating that engagement involves more than just job satisfaction (Saks, 2006). In collaboration, employee engagement is a complicated idea that depends on several internal factors, including work environment quality, career happiness, and leadership style.

1.4 Conceptualization of work environment on career satisfaction.

A key factor in determining general career satisfaction, staff retention, productivity, and organizational performance is career satisfaction. It includes the sense of satisfaction and contentment that a person gets from their work, which is impacted by a variety of circumstances in the workplace. The impact of the work environment on career happiness is examined in this paradigm, with particular attention paid to encouraging leadership, organizational structure, work-life balance, job autonomy, chances for skill development, cooperative coworkers, job security, and rewards and recognition.

The place, circumstances, and culture in which workers carry out their duties are referred to as the work environment.

It covers the psychological, social, and physical aspects that affected how a person experienced

their job. While a bad work environment can cause stress, disengagement, and discontent, a good work environment supports employees' well-being, engagement, and career satisfaction.

According to Chandrasekar (2011), a business must take care to establish a work environment that increases employees' capacity for productivity to boost profitability. Additionally, he made the case that, in the modern period, improving an organization's overall performance requires management skills, time, and energy—all of which are less dependent on money and more dependent on the interactions and relationships between people.

Employability is the capacity to adjust to changing circumstances, workplaces, and technology breakthroughs. As a result of this flexibility, people can prosper despite changes in the employment market or in business ("Work Environmental Factors," 2017). Employability is increasingly seen as requiring the ability to manage interpersonal connections sensibly and sympathetically, as well as the awareness, regulation, and expression of one's emotions (Martin et al., 2016). Cultural sensitivity and the capacity for multidisciplinary teamwork are important employability skills in a labor market that is becoming more and more globalized. They make it possible for people to collaborate well across boundaries and in multicultural settings (Allvin & Aronsson, 2003).

According to Bakotic & Bbic's (2013) research, working conditions have a significant impact on job satisfaction for employees who face challenging circumstances; hence, these employees experience dissatisfaction due to this issue. It is critical that management make improvements to the working environment to increase employee happiness under challenging working conditions. As a result, their level of satisfaction will be on par with that of individuals who operate under regular working conditions, which will boost productivity.

A supportive environment is created by personable, communicative, and empowered leaders, which raises staff motivation and morale. Career satisfaction among employees is enhanced by supportive executives who offer direction, recognition, and opportunity for professional progress. According to Bass and Avolio (1994), transformational leadership is especially successful at increasing career happiness because it places a strong emphasis on inspiration, motivation, and intellectual stimulation. According to Baah and Amoako (2011), motivational factors such as the nature of the work, the sense of accomplishment from it, the recognition, the responsibility that is given to them, and the opportunities for personal growth and advancement help employees discover their value in relation to the value that the organization has placed on them.

Additionally, this may boost workers' motivation levels, which in turn may boost their internal happiness, which in turn may lead to satisfaction. The hygiene component is important, but it can only bring about enjoyment on the outside. It lacks the capacity to change unhappiness into contentment. As per the Herzberg two factor theory, there exists a correlation between hygiene

and motivational factors. Specifically, hygiene factors facilitate an employee's transition from job distinction to no job satisfaction, while motivation factors help them move from no job dissatisfaction to job satisfaction (Herzberg et al., 1959).

Career happiness is positively impacted by an organizational structure that encourages candid communication, teamwork, and employee participation in decision-making processes. Workers are more likely to be content with their careers if they are aware of their roles and how they contribute to the organization's goals (Mintzberg, 1979). Within an organization, the distribution of authority, responsibilities, and duties is determined by the organizational structure. Clear communication, effective workflow, and a sense of order are made possible by a well-structured organization—all of which are critical for professional advancement.

Employees can better manage their personal and professional lives when their employers offer flexible work schedules, telecommuting opportunities, and supportive rules about personal time off. According to Greenhaus and Powell (2006), maintaining this balance is linked to greater levels of job satisfaction and general well-being, which in turn boost career satisfaction. It entails juggling obligations from both your personal and professional lives, which is essential for lowering stress and avoiding burnout. For the most part, it enables workers to keep a harmonious balance between their personal and professional lives.

High degrees of job autonomy are associated with higher levels of motivation, job satisfaction, and career satisfaction, according to (Hackman & Oldham, 1976). Employees are more engaged and satisfied with their jobs when they are allowed to handle their tasks and make decisions. The level of decision and control that employees have over their work duties is referred to as job autonomy. Employees are empowered to take initiative, be creative, and make decisions as a result.

Prospects for job progression, mentorship, and training programs are all included in the opportunities for skill and development. Workers are more likely to be content with their professions if they believe there are plenty of opportunities for skill improvement. Employees' abilities and career prospects are improved by ongoing learning and development, which also increases job satisfaction (Becker 1964). Effective job performance and career advancement depend on these competencies (Lindeberg et al., 2022). A fundamental element of employability is a dedication to lifelong learning and improvement. Active learners maintain their competitive edge in the Labor market, are better able to adjust to changing circumstances, and can take advantage of new professional possibilities as they present themselves (Nielsen et al., 21

2017a). Job and career happiness are highly correlated with pleasant interactions and teamwork among coworkers. Colleagues who are supportive offer professional and emotional assistance, fostering a cooperative and trustworthy work atmosphere (Cohen & Wills, 1985).

A key component of employment happiness is job security. More engaged, driven, and content with their careers are those who feel more secure in their positions. Lee, Ashford, and Bobok (1989). Acknowledgments and prizes greatly increase intrinsic motivation and job happiness. Workers are more likely to be content with their careers if they believe their efforts are valued and acknowledged (Vroom, 1964). Employee performance and effort are validated by these awards and accolades.

1.4. Interplay of work environment and career satisfaction.

In organizational behavior and human resource management, the relationship between the work environment and career satisfaction is well-established. Career satisfaction is defined as the degree to which an individual's positive psychological state about their career is influenced by a variety of factors related to their work environment.

The industrial era of work research focused primarily on the aspect of human Labor efficiency in exchange for monetary compensation, but more recent research has incorporated work environment to include industrial, psychological, and social aspects of life (Van der Laan et al., 2023) highlighting the significance of managing and prioritizing the work environment for achieving benefits and success. According to Kaehler & Grundei's (2019) definition, work is defined as being performed by an individual known as an employee (Tynes et al., 2017) for the purpose of achieving organizational goals, with the other factor being determined by the individual factors if for a livelihood or career progression (Cabral, 2021). Work is performed not independently of a particular type of environment.

According to the transformational leadership theory, high levels of job satisfaction are fostered by leaders who inspire, intellectually stimulate, and give each employee individual attention. Riggio & Bass, 2006). Empirical studies (Avolio, Walumbwa, & Weber 2009) support the notion that transformational leadership is positively correlated with career satisfaction due to the enhanced sense of support and professional growth opportunities. Transformational leadership has been shown to enhance employee's motivation job satisfaction and career satisfaction.

According to Bakker and Demerouti (2017), the Job Demand-Resources Model Theory, established that no work is independent of its environment, indicates that a conducive work environment would encompass the demands of a job, and the resources made available to carry 22

Out the work over a period. Leadership, in addition to a conducive work environment and career development opportunities, significantly influences work achievements (Bagdadli & Gianecchini, 2019).

The corporate culture model developed by Schein (2010) emphasizes how deeply ingrained norms and values can have a big impact on how employees behave and think. According to research by Hartnell et al. (2019), career happiness increases when an organization's culture prioritizes the growth and well-being of its employees since it makes them feel more in line with the goals and values of the company. According to Clark (2000), the work-family border hypothesis, having fluid borders between work and personal life improves overall life satisfaction.

According to research by Allen et al. (2020), work-life balance initiatives improve general wellness and reduce work-related stress, which is highly correlated with greater job and career satisfaction.

Employees who work for organizations that support work-life balance with flexible work schedules and encouraging policies are better able to balance their personal and professional lives. According to Deci and Ryan's (1985) self-determination theory, autonomy is an essential psychological demand. (Wang et al., 2020) found that since they feel more in control of their work and are more intrinsically motivated, workers who have greater job autonomy report better levels of career satisfaction. According to Bakker and Demerouti (2017), burnout is a state of work-related mental exhaustion that is characterized by emotional exhaustion, a sense of personal ineffectiveness, and depersonalization or a cynical instrumental attitude toward others. It is brought on by high job demands and a lack of resources and has an impact on both organizational outcomes and employees' physical and mental health.

Numerous industries are susceptible to burnout, which is exacerbated by elements including emotional labor, continuous contact with customers, and unfavorable working circumstances. The employee's inability to maintain a healthy mental state because of work-related mental weariness would negatively affect their professional achievement. Long-term professional success can be facilitated by a supportive work environment that encourages work-life balance and attends to employees' needs. This can lower turnover and burnout. If an employee's overall workplace does not support their mental health and wellness, they will not be able to achieve job satisfaction (Calaguas, 2017).

This indicates that an employee's job has been valued for its significance and influence, that they have successfully struck a balance between their personal and professional obligations, and that

their performance and productivity have grown because of working in environments that are not stressful or toxic. This paints an image of a happy and healthy work atmosphere. According to Nielsen et al. (2017a), a favorable work environment is the only way to improve motivation, engagement, and job satisfaction, which in turn leads to increased productivity and innovation. Innovation and creativity are the products of an employee's years of experience working in a culture that values job autonomy (Llopis & Foss, 2016). Employees will be able to stand out in their jobs and create original solutions thanks to this.

Strong team dynamics and external networking can be fostered at work to create beneficial relationships that can advance career chances. In addition to promoting personal happiness and job satisfaction, a pleasant and encouraging work atmosphere lays the groundwork for career goals, skill development, and professional advancement.

This is an example of an employee whose other work environment factors are pleasant as all work environment factors are known to be interconnected and related to one another (Demerouti, 2015). Nowadays, we work in a dynamic world where employees have colleagues who work in other organizations and the world is a global village where information is accessible to everyone. What motivates will vary from one individual to another but every factor that motivates an individual is able to make them continue the job (Ahmad et al., 2020) and then give in their best. If what they are experiencing is consistent with other organizations, workers will compare them when it comes to having a favorable work culture (van der Laan et al., 2023). Employers who support learning and development for their staff members will be able to keep them on for longer than those who don't. This is because training and development helps workers acquire new skills and competences that permit career advancement.

A nice work environment will make a job more satisfying. Employee productivity and efficiency will rise in both favorable and unfavorable work environments (Nielsen et al., 2017a). Even though a person may have many objectives and desires, working in a workplace where safety precautions are not taken can be harmful to one's health and jeopardize job satisfaction (van der Laan et al., 2023).

According to human capital theory (Becker, 1964), spending on employee development and training raises satisfaction and productivity. According to research by Park et al. (2019), opportunities for ongoing learning and development enhance employees' competences and career possibilities, which has a positive relationship with professional satisfaction. According to the social exchange theory (Blau, 1964), having supportive coworkers increases organizational

loyalty and job happiness.

According to (Chiaburu & Harrison, 2008), cooperation and colleague support have a big impact on job and career satisfaction because they foster a helpful and collaborative work environment. According to the work security satisfaction hypothesis (Greenhalgh & Rosenblatt, 1984), there is a strong correlation between job satisfaction and perceived job security.

In summary, opportunities for career development play a role in the complex relationship between work environment quality, employee engagement and career satisfaction. Organizations looking to improve employee retention, satisfaction, and overall performance must comprehend these relationships.

1.6 Theoretical research model/framework

Theoretical Model

Independent Variable: Employee Engagement

Dependent Variable: Opportunities for career development.

Mediator: Career Satisfaction.

Moderator: Work Environment Quality.



Figure 4: Theoretical Research Model/Framework

Source: created by author, based on (Greehaus, Parasuraman & Wormley, 1990; Gerstner & Day 1997; Wang, Liu & Lee, 2020; Schein, 2010; Allen et al., 2013; Hackman & Oldman, 1976; Deci E. L, Olafsen, A.H., & Ryan, R.M., 2017).

The independent variable, which is Employee engagement involves the level of commitment, enthusiasm and emotional investment that employees have towards their job and organization. This can affect the strength of the relationship between opportunities for professional development and career satisfaction.

The dependent variable which is the opportunities for Career development, represents the availability and quality of opportunities for employees to enhance their skills and advance career through training, workshops, and educational programs.

Career satisfaction, which is known as the Mediator, has to do with the degree to which employees feel content and fulfilled with their career progression and job experience.

Moderator, known as work environment quality, is a holistic measure that includes various aspects of such as physical workspace, organizational culture, management practices and interpersonal relationship within the organization.

METHODOLOGY FOR THE ANALYSIS OF THE IMPACT OF WORK ENVIRONMENT ON CAREER SATISFACTION

This chapter's first portion presents the data collection and analysis methods used in the investigation of the factors influencing employee and corporation outcomes. It also covers the issues with the organizational design of the study. The second half of the chapter focuses on the presentation of the research instrument.

2.1 Research methods and their application.

The aim of this research is to test the relationship between potential mechanisms on employees' career satisfaction in their work environments. The empirical aim is to collect and analyze data to test the proposed model and understand the dynamics between work environmental factors and career satisfaction, specifically in the context of Nigerian companies. This will ensure that the research findings are not just theoretical but grounded in observable evidence. The methods of theoretical analysis, empirical research, descriptive and inferential (correlation and regression analysis) statistics will be used to achieve this goal.

Theoretical analysis method: A review of the scientific literature was conducted, during which the work-related scientific literature was analyzed and described. Theoretical analysis is used to explore existing framework and concept related to work environment factors and career satisfaction. By critically reviewing the relevant literature, the study builds a robust theoretical foundation for the proposed model. (Creswell, J.W., & Creswell, J.D 2018). The theoretical analysis ensures that the research aligns with established knowledge, identifies research gaps, and position the study within the broader field of organizational behavior.

Empirical research method: The empirical research collects real world data to test hypothesis and validate the theoretical model. This involves using validated survey instrument and engaging participant directly (Saunders, M., Lewis, P., & Thornhill, A. (2019). Empirical research bridges the gap between theory and practices, ensuring findings are applicable in real life context.

Research aim is to examine the intricate relationships that exist between employee engagement, career happiness, and the work environment. The goal of the study is to examine how employee involvement—which includes emotional, cognitive, and physical aspects—affects overall job satisfaction across a range of work environments. The study includes an understanding of the critical role that career development opportunities—particularly in the areas of management and organizational procedures—play in fostering an environment that promotes engagement and, consequently, job satisfaction.

The research object is Employees Engagement, Opportunities for Career Development, Work Environment Quality and Career Satisfaction.

The research Tasks:

- d. To determine and analyze specific factors of the work environment that significantly contribute to career satisfaction.
- e. To develop a conceptual model for career satisfaction based on the impact of work environment factors.

To empirically test the model revealing the impact of work environment factors on career satisfaction

A model of the link between the components was constructed to identify the effect of work environment on career satisfaction, and it is subsequently employed in the work as a scheme of hypothesis.

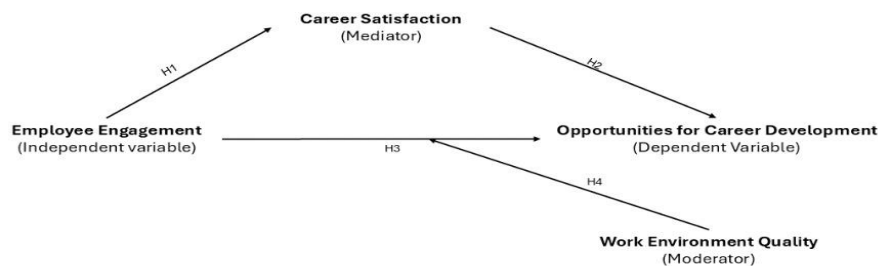


Figure 5: Scheme of research hypotheses.

Source: created by author.

The following hypotheses were formulated for the research:

H1: Employees Engagement (independent variable) positively influence the mediator (Career Satisfaction). Hypothesis 1 suggests that employees are likely to feel fulfilled and content with their career progression and experiences. Employee Engagement which encompasses enthusiasms, dedication and willingness to invest effort in job activities, is positively correlated with career satisfaction, as engaged employees are more likely to derive satisfaction from their role. (Bakker, A.B., & Demerouti, E., 2008) discussed on how employee engagement, characterized by vigor, dedication and absorption enhances career satisfaction by increasing positive work experiences.

H2: Career Satisfaction Mediates the relationship between Employee engagement (Independent

Variable) and Opportunities for career development (Dependent variable). Employee engagement impacts opportunities for career development indirectly through its influence on career satisfaction. Employees who are engaged and feel satisfied with their career are more likely to recognize or pursue career development opportunities. Career satisfaction acts as a pathway that enhances the influence of engagement on career development opportunities. (Lee., K., Carswell, J.J., & Allen, N, J., 2000) This meta- analysis supports the notion that career satisfaction mediates the relationship between employee's engagement and career related outcome like development opportunities.

H3: Work Environment moderates the relationship between Employees Engagement (independent variable) and Career Satisfaction (Mediator). H3 suggest that the positive effect of employee engagement on career satisfaction is expected to be stronger in a supportive work environment. When the work environment is conducive (e.g supportive leadership, effective teamwork) engaged employees feel more satisfied in their career than they would in less supportive environments. In this hypothesis, the work environment moderates the engagement satisfaction relationship by either strengthening or weakening it. (Shuck, B., & Reio Jr, T. G. 2014) demonstrate how a supportive work environment enhances the effect of engagement on career satisfaction, suggesting that engaged employees are more satisfied in positive work environment.

H4: Career satisfaction (Mediator) positively influence opportunities for career development (Dependent variable). Employees who experience higher career satisfaction are more likely to perceive or attain opportunities for career advancement. Satisfied employees are often more proactive in pursuing developmental opportunities, and organizations are more likely to offer these to content employee, recognizes their value and potentials. (Noe, R. A., Clarke, A, D., & Klein, H.J 2014) explore how career satisfaction contributes to motivation for professional growth and development, reinforcing the link between satisfaction and pursuit of career advancement opportunities. (Govaerts, N.,Kyndt, E., Dochy, F., & Baert, H. 2011) links career satisfaction to a greater likelihood of pursuing career development, showing that satisfied employees are more inclined to engaged in developmental opportunities.

Table 1 Definition of quantitative research construct and measurement scales.

Hypothesis	Construct	Theoretical Definition	Survey	Source
H1	Employee Engagement and Career Satisfaction.	Engaged employees are more likely to feel satisfied with their career due to increased motivation and Job fulfillment.	To what extent do you feel enthusiastic and dedicated in your work?	Bakker, A.B., & Demerouti, E., 2008.

H2	Career Satisfaction.	Career satisfaction mediates the influence of employee engagement on career development opportunities, enhancing the engagement effect.	How satisfied are you with the progression and future growth opportunities in your career?	Lee., K., Carswell, J.J., & Allen, N, J., 2000.
H3	Work Environment Quality.	The effect of employees' engagement on career satisfaction is stronger in a supportive work environment.	How supportive is your work environment (e.g supervisor support, teamwork) in promoting career satisfaction?	Shuck, B., & Reio Jr, T. G. 2014.
H4	Career Satisfaction and Career Development	Satisfied employees are more proactive in seeking career development opportunities.	To what extent does career satisfaction motivate you to seek additional career development opportunities?	Noe, R. A., Clarke, A. D., & Klein, H.J 2014. Govaerts, N., Kyndt, E., Dochy, F., & Baert, H. 2011.

Source by author

The goal of this framework is to investigate how employee's engagement (independent variable) positively influences the mediator (Career Satisfaction). H2 how Career Satisfaction Mediates the relationship between Employee engagement (Independent Variable) and Opportunities for career development (Dependent variable). H3 how Work Environment moderates the relationship between Employees Engagement (independent variable) and Career Satisfaction (Mediator). H4 how Career satisfaction (Mediator) positively influence opportunities for career development (Dependent variable).

Employees who experience higher career satisfaction are more likely to perceive or attain opportunities for career advancement.

The population, the sample within it, and the sample itself. Given that there are an estimated 5 million workers in Nigerian companies, the survey's objective is to evaluate the impact on these workers ("World Bank Open Data," 2023) Nigerian labor market report. Nigeria is Africa's largest economy and most populous country, contributing significantly to the continent's labor market. It represents a diverse and dynamic economic environment with significant potential for organizational and employee development. Studying Nigerian companies provides insights into how work environment factors influence career satisfaction in a rapidly developing economy. Nigerian companies are characterized by diverse sectors, including banking, telecommunication, education and manufacturing, this diversity offers a broad perspective on employee engagement, satisfaction, and career development across industries. The following formula is used to determine the necessary sample size:

η represent the number of cases in the sample.

Δ indicate the magnitude of the error.

N is the total population.

It is decided that 250 respondents would be an acceptable sample size for the study, given the 5 million employees in the population and the goal of achieving a survey reliability with a 5 percent error margin. This sample size will guarantee the validity and dependability of the survey findings in relation to the Nigerian Labor market research.

To determine the appropriate sample size for a population of 5 million Nigerian workers with a 5% margin error (Δ), we will apply the same formula used for large population. The formula to calculate sample size is based on the confidence level (typically 95%), the margin of error, and the population size. The formula for calculating the sample size η is as follow:

$$\eta = \frac{N \cdot Z^2 \cdot p \cdot (1 - p)}{(N - 1) \cdot E^2 + Z^2 \cdot p \cdot (1 - p)}$$

Where:

n sample size.

N population size (5,000,000)

Z z-score corresponds to the desired confidence level (for 95% confidence, $Z= 1.96$).

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P estimated proportion of the population that has the attribute (commonly 0.5 is used if the exact proportion is unknown, as it provides the maximum sample size).

E margin of error (5% = 0.05).

$$n = \frac{5,000,000 \cdot (1.96)^2 \cdot 0.5 \cdot (1 - 0.5)}{(5,000,000 - 1) \cdot 0.05^2 + (1.96)^2 \cdot 0.5 \cdot (1 - 0.5)}$$

The calculated sample size is approximately 202 respondents. However, a sample size of 250 respondent as proposed in my research, would ensure even greater reliability and reduce sampling errors. This size would comfortably meet the requirements for valid and dependable survey result in the context of the Nigerian labor market research, considering the large population size of 5 million workers and a 5% margin of error.

Given the scale of the population, it is important to focus on specific areas of Nigeria for this study on the effects of work environment characteristics on employees. These areas include major economic hubs and industries with high employee concentrations, such as:

Lagos state: the commercial hub.

Lagos State is home to the majority of Nigeria's workforce and is the country's largest commercial and industrial hub. Numerous multinational firms, oil businesses, and other service industries that make up a sizable portion of the formal Labor call it home. More than 10% of Nigerian workers are anticipated to reside in Lagos State, where there is a significant concentration of corporate offices and industrial businesses that might supply pertinent data for market research (NBS, 2023).

Abuja: government and public sectors.

As the nation's capital, Abuja is home to numerous public sector organizations, global organizations, and major corporations' headquarters. There are sizable civil service personnel in Abuja. Given its significant share of Abuja's formal Labor market, the public sector is a crucial area of study for learning about career advancement and work satisfaction in government employment (World Bank, 2023).

Port-Harcourt: oil and gas industry.

The hub of Nigeria's oil and gas industry is Port Harcourt. This industry, which employs many trained professionals in technical, engineering, and administrative roles, is essential to Nigeria's economy. Nigeria's economy greatly benefits from the oil and gas industry, which also employs many people (Gbadamosi et al., 2023).

Kano state: Northern economic hub.

One of the biggest cities in northern Nigeria, Kano serves as a center for trade, industry, and agriculture. Compared to Lagos and Abuja, it represents a distinct demographic and economic sector. A comprehensive knowledge of employee happiness across many industries requires a varied sample, which is provided by targeting Kano in the manufacturing and agriculture sectors. Kano is an important industrial hub, especially for the north, which makes it a prime site for workforce research (NBS, 2023).

Research Stages:

1. Preparation of research methodology: research problem, object, goal, task, research method, hypotheses, respondent, necessary research sample.
2. Compilation of a questionnaire and market data research.
3. Carrying out empirical research.
4. Analysis, systemization, and evaluation of research data.
5. Summary of research result.
6. Presentation of conclusion and recommendation.

Method of Statistical analysis.

The statistical analysis software program SPSS will be used to process the data gathered for the empirical study. The social and demographic information of survey respondents will be reviewed using the descriptive statistics approach, and the percentage distribution of respondents by gender, age, occupation, working environment, and job satisfaction. I will be using a significance level of $p < 0.05$ and a confidence level of $\alpha = 0.05$ to ascertain the statistical significance of the parameters under inquiry. The consistency of the statement in the group will be investigated using the Cronbach's alpha coefficient to evaluate the coherence, accuracy, and alignment of the statement in a questionnaire with the research value.

Formula for calculating Cronbach Alpha.

$$\alpha = \frac{N \cdot \check{C}}{v + (N-1) \cdot \check{C}}$$

N is number of items

\check{C} is the average covariance between item pairs.

v is the average variance of each item.

2.2 Research Design and Method.

There are different approaches to research for gathering primary data. It was decided to use a survey approach, more precisely a questionnaire. Research teams utilize surveys to get information (from selecting samples to questions and themes). It's a helpful way to get a lot of data from many sources.

Numerous characteristics, such as sex, age, race, status, occupation, working environment, and job satisfaction, may be taken into consideration when choosing the respondents. The survey's first question will be this one (Story and Tait 2019).

Furthermore, for primary data collection, a cross-sectional temporal horizon will be used.

Consequently, information will be obtained simultaneously from a wide range of individuals. The approach selected is more appropriate for this study since longitudinal studies consistently gather data from the same respondents over time, in contrast to cross-sectional studies, which frequently concentrate on a larger group of people who are delighted by a similar attribute (Thomas 2022).

Using a quantitative survey, the raised hypotheses are to be verified. This approach is typically selected when it is required to verify theoretical questions posed during the research or insights that rely on individuals' interests, personality, and other personal qualities. A larger sample size in a shorter amount of time is the aim of the quantitative survey technique. A prearranged research instrument is used to conduct the survey, which should help organize the information gathered from the respondents (Espadoto et al., 2021).

2.3 Research Instrument.

Four components made up the questionnaire, totaling 50 questions, 10 for Opportunities for Professional Development scale (Noe, R. A., Clarke, A. D., & Klein, H.J 2014. Govaerts, N., Kyndt, E., Dochy, F., & Baert, H. 2011). To what extent does career satisfaction motivate you to seek additional career development opportunities? 10 for Environment work quality developed by (Shuck, B., & Reio Jr, T. G. 2014.) has to do with how supportive is your work environment (e.g supervisor support, teamwork) in promoting career satisfaction? 13 for Career Satisfaction developed by (Lee., K., Carswell, J.J., & Allen, N, J., 2000.) has to do with how satisfied are you with the progression and future growth opportunities in your career? 17 for Employees Engagement developed by (Bakker, A.B., & Demerouti, E., 2008) has to do with to what extent do you feel enthusiastic and dedicated in your work?

The survey has been created, and it is expected to be distributed to not less than 250 participants. The data that will be received will be exported to the SPSS (Statistical Package of Social Science) application, where it will be utilized for additional computations and analysis. We will go over the theoretical underpinnings of the questionnaire selection process and gain additional knowledge about the questionnaire's structure in the sections that follow. To guarantee that the items in a validated questionnaire consistently assess the specified constructs, the questionnaire has undergone extensive testing. This guarantees the survey's reliability, or that it will produce results that are consistent. By employing a pre-validated instrument, the researcher may be sure that the survey is accurately measuring the desired construct (e.g., employees' engagement, work environment, and job satisfaction). This helps to measure what it is designed to assess.

Additionally, as it has previously been shown to be a reliable tool in earlier research, it will save time and effort compared to verifying the construct from scratch. Developing a new survey and validating it is time-consuming. But using an already validated questionnaire speeds up the research process and allows the researchers to focus on data collection and analysis instead of instrument development. Pre-validated surveys are often tested for clarity, concise language, reducing ambiguity and improving response accuracy.

The initial set of inquiries pertains to the social and demographic information of the respondents in the survey: the following categories are gender, age, education, occupation, work experience, work environment and location.

Employee engagement utilizes a set of 17 questions on how employees focus on individual engagement with their specific roles and task. The questionnaire evaluates two aspects of employee work engagement. These aspect encompasses: 9 items that promotes motivation I other to capture the depth of employee's experience, additionally, there are 8 items that promotes job fulfillment in other to capture employee engagement in their career. (Bakker, A.B., & Demerouti,

E., 2008.) It consists of 17 statements which are assessed using responses ranging from 1-5 (from 1. “Not at all satisfied, 2. “Dissatisfied, 3.” Neither 4. “Somewhat satisfied, and 5 “Nor entirely satisfied) are assessed using a 5-point Likert scale.

Table 1 Employee Engagement Scale.

Dimensions	Questions	Cronbach Alpha Score
Motivation.	<ol style="list-style-type: none"> 1. I am highly motivated to give my best effort at work. 2. I feel energized to start my task each day. 3. I am driven to meet and exceed the expectations set for my role. 4. I look forward to achieving my goals in the organization. 5. I am constantly motivated to improve my skills for this job. 6. My motivation to work remains high, even during challenging time. 7. I take initiative to go above and beyond in my responsibilities. 8. I am committed to my work goals and career development. 9. I actively seek opportunities to take on new challenges in my role. 	

<p>Job Fulfillment.</p>	<p>10 I feel personally fulfilled by the work I do in my current role.</p> <p>11 My job provides me with a sense of accomplishment and pride.</p> <p>12 I feel a deep sense of satisfaction when I complete my work.</p> <p>13 The work I do aligns with my personal values and goals.</p> <p>14 I find meaning in the task I perform every day.</p> <p>15 I feel a sense of purpose in my role within the organization.</p> <p>16 My role gives me a feeling of success and achievement.</p> <p>17 I am satisfied with my career in progressing in this organization.</p>	
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Source authors: Bakker, A.B., & Demerouti, E., 2008.

Career Satisfaction scale utilizes a set of 13 question on how employee's satisfaction with career progression role, and future career products. According to this research, employee career satisfaction involves two basic aspects which are career satisfaction and career opportunities development. The questionnaire assesses 2 dimensions of employee career satisfaction. This dimension includes 7 satisfactions with career satisfaction questions, 6 from career opportunities development. (Lee., K., Carswell, J.J., & Allen, N, J., 2000). It consists of 13 statements, which are assessed using responses ranging from 1-5 (from 1. "Not at all satisfied, 2. "Dissatisfied, 3." Neither 4. "Somewhat satisfied, and 5 "Nor entirely satisfied) are assessed using a 5-point Likert scale.

Table 2 Career Satisfaction Scale.

Dimensions	Questions	Cronbach Alpha Score
Satisfaction with career satisfaction.	<ol style="list-style-type: none">1. I am satisfied with the progress I have made toward my career goal.2. I feel a strong sense of accomplishment in my career.3. I am pleased with the way my career has developed me so far.	
	<ol style="list-style-type: none">4. My career path aligns well with my personal and professional goal.5. I feel valued and recognized for my contributions in my career.6. My job roles have been fulfilling and rewarding for my career development.7. I am confident in the direction my career is taking within this organization.	

Career Opportunities development.	<p>8. I am provided with clear opportunities for career advancement.</p> <p>9. My organization offers a variety of programs to support my professional growth.</p> <p>10. I have access to career development resources and support within my company.</p> <p>11. I feel encouraged to pursue learning and development opportunities relevant to my career goals.</p> <p>12. I could acquire new skills that are beneficial for my career progression.</p> <p>13. My organization promotes career development through mentoring, training and coaching programs.</p>	
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Source author: Lee., K., Carswell, J.J., & Allen, N, J., 2000.

The Environment Work Quality Scale (EWQ-10) was utilized for measurement. The current study utilized a set of 10 question to assess employees' ratings of work environment aspects such as employee's engagement, career satisfaction and supportive work environment. It is freely available online, and permission is granted to use the methodology for non-commercial purposes for free. The construct of environment quality was refined to entail three dimensions: how supportive work environment can enhance the impact of employees' engagement on career satisfaction. The authors of the study are (Shuck, B., & Reio Jr, T. G. 2014). It consists of 10 statements, which are assessed using responses ranging from 1-5 (from 1. "Not at all satisfied, 2. "Dissatisfied, 3." Neither 4. "Somewhat satisfied, and 5 "Nor entirely satisfied) are assessed using a 5-point Likert scale.

Table 3 The Environment Work Quality Scale (EWQ-10).

Dimensions	Questions	Cronbach Alpha Score
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<p>Employee Engagement</p>	<ol style="list-style-type: none">1. I am motivated and excited in my current position.2. I have a strong commitment to reaching my objectives.3. I am proud of the work I perform every day.4. I actively participate in activities that advance my professional growth.	
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Career Satisfaction.	<p>5. I am happy with the way my career has developed within this company.</p> <p>6. My present position satisfies my professional goals.</p> <p>7. I feel like I've made progress in my career.</p>	
Supportive work environment.	<p>8. Support and open communication are encouraged in my workplace.</p> <p>9. I have access to tools that enable me to be successful in my position.</p> <p>10. My boss gives me helpful criticism that advances my professional development.</p>	

Source authors: Shuck, B., & Reio Jr, T. G. 2014

The Opportunities for Professional Development (OPD-10) scale is utilized to assess how career satisfaction influences an employee's initiative in seeking career development. This aspect encompasses 5 items that promote career satisfaction. Also, there are 5 items that promote proactivity in seeking career development.

The authors of the study Noe, R. A., Clarke, A. D., & Klein, H.J 2014. Govaerts, N., Kyndt, E., Dochy, F., & Baert, H. 2011. It consists of 10 statements, which are assessed using responses ranging from 1-5 (from 1. “Not at all satisfied, 2. “Dissatisfied, 3.” Neither 4. “Somewhat satisfied, and 5 “Nor entirely satisfied) are assessed using a 5-point Likert scale. The validity and reliability of the questionnaire has already been examined in the article.

Table 4 The Opportunities for Professional Development Scale (OPD-10).

Dimensions	Questions	Cronbach Alpha Score
Career Satisfaction.	<p>1. I am content with my career at this point.</p> <p>2. I am happy with how far I have come in my job thus far.</p> <p>3. I have faith in the direction my career is going within the company.</p> <p>4. The duties and responsibilities of my current position are in line with my professional objectives.</p> <p>5. I am happy with the assistance my company provides for my professional development.</p>	
Proactivity in seeking career development opportunities .	<p>6. I proactively look for chances to pick up new abilities that will advance my career.</p> <p>7. I constantly search for methods to further my career inside the company.</p> <p>8. I proactively seek out role-related training and development initiatives.</p>	

	<p>9. I am proactive in seeking mentorship or guidance to advance my career.</p> <p>10. I frequently set new career goals and work towards achieving them.</p>	
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a. Sample Population and Size.

To collect quantitative data, a survey will be given to the participants. Managers and employees who engage in intellectual pursuits will be invited to participate in the study. Regarding the participants' age, gender, or educational background, there were no constraints or limitations. Quantitative exploratory research will be conducted in which workers from different sectors will be selected at random. In 2024, the survey will formally launch and be accessible to the whole public. The survey will run from mid-November 2024 and ending in first week of December 2024.

The questionnaire aims to investigate the impact of work environment on career satisfaction using opportunities for professional development, employee's engagement, career satisfaction and work environment quality. The questionnaire Will be anonymous and will solely be utilized for research objectives.

The statistical quantitative survey will only be conducted online using the Google form platforms https://docs.google.com/forms/d/18kafeetvAjKgRqID3n01qsv8x6Q3jlc2p0e1loO-Cso/edit?usp=sharing_eil&ts=674ad099. As soon as the survey is launched, participants will receive an explanation of the study along with a survey link. They will also be instructed to share the material with their colleagues or ~~students~~. Additionally, a URL will be published on LinkedIn, Facebook, and Instagram. On Facebook, participants will also be asked to complete or share the questionnaire with individuals who work in different companies, specifically within exclusive groups and among acquaintances. The data collected will be processed anonymously during analysis, kept until the task is finished, and then deleted.

3.0 DATA ANALYSIS AND INTERPRETATION.

A set of 50 questions were adapted from the questionnaire to collect data concerning the parameters that need to be studied for the independent variables. Five-point Likert Scale was used to collect the data ranging from 1. “Not at all satisfied, 2. “Dissatisfied, 3.” Neither 4. “Somewhat satisfied, and 5 “Entirely satisfied. The study suggests (based on the hypothesis) to perform the regression analysis to find the actual interpretation of relation. Correlation analysis has to be done to find the relationship among all the components. The data were then analyzed with the software named statistical package for social science (SPSS).

3.1 THE RESULTS

The opinion from the selected sample as the parameter of study is shown in tables to understand the impacts of work environment on career satisfaction. From the descriptive statistics, the result represents 103 female which is 51% and 99 male which is 49% for the gender analysis.

Table 5: Descriptive Statistical Table

		Gender			Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	male	99	49.0	49.0	49.0
	female	103	51.0	51.0	100.0
	Total	202	100.0	100.0	

		Age			Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Under 25	10	5.0	5.0	5.0
	25-34	118	58.4	58.4	63.4
	35-44	61	30.2	30.2	93.6
	45-54	13	6.4	6.4	100.0
	Total	202	100.0	100.0	

		Occupation			Cumulative Percent
		Frequency	Percent	Valid Percent	
Valid	telecommunication	41	20.3	20.3	20.3
	university (admin staff)	14	6.9	6.9	27.2
	university (academic staff)	21	10.4	10.4	37.6
	banking	82	40.6	40.6	78.2
	others	44	21.8	21.8	100.0
	Total	202	100.0	100.0	

The data consists of 202 employees of which 5% are under 25, 58.9% belongs to age 25-34, 30.2% belongs to age 35-44, 5.9% of the survey belongs to age 45-54 and 0% for above 54 years. Occupation wise we got 20.3% from telecommunication, 6.9% from university (administrative staff), 10.9% from university academic staff, 33.7% from banking sectors and 28.2% from other sectors.

		Statistics		
		Gender	Age	Occupation
N	Valid	202	202	202
	Missing	0	0	0
Std. Deviation		.50114	.68258	1.42628
Variance		.251	.466	2.034
Skewness		-.040	.580	-.636
Std. Error of Skewness		.171	.171	.171
Kurtosis		-2.018	.192	-.987
Std. Error of Kurtosis		.341	.341	.341

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.971	.971	4

The Cronbach's Alpha of 0.971 for the 4 items indicates the internal consistency or reliability. A value close to 1 is considered excellent and are highly correlated.

Item Statistics

	Mean	Std. Deviation	N
Employ	4.3914	.78861	202
Career	4.3088	.82762	202
Work	4.3243	.83889	202
Opport	4.3366	.82694	202

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	4.340	4.309	4.391	.083	1.019	.001	4
Item Variances	.674	.622	.704	.082	1.132	.001	4
Inter-Item Correlations	.895	.858	.931	.073	1.085	.001	4

ANOVA

	Sum of Squares	df	Mean Square	F	Sig
Between People	498.800	201	2.482		
Within People					
Between Items	.782	3	.261	3.673	.012
Residual	42.776	603	.071		
Total	43.558	606	.072		
Total	542.359	807	.672		

Grand Mean = 4.3403

The variance explains the between groups sum of square (498.800) which indicates how much variation exists due to differences between the groups. The within groups sum of square (42.776) indicates how much

variation exists within each group due to individual differences. While the statistical significance is to determine if the difference between groups is statistically significant, the F- Ratio is calculated and compare to a critical valued based on DF and the significance level. And finally, the grand mean of 4.3403 indicates the average value across all observations. The differences from this grand mean are partitioned into within group and between group variations.

Table 6: Correlation Matrix for Work Environment on Career Satisfaction.

Correlations					
		Employee Engagement	Satisfaction	Environment Quality	Opportunity for PD
Employee Engagement	Pearson Correlation	1	.882**	.858**	.860**
	Sig. (2-tailed)		<.001	<.001	<.001
	Sum of Squares and Cross-products	125.003	115.702	114.053	112.733
	Covariance	.622	.576	.567	.561
	N	202	202	202	202
Satisfaction	Pearson Correlation	.882**	1	.931**	.923**
	Sig. (2-tailed)	<.001		<.001	<.001
	Sum of Squares and Cross-products	115.702	137.674	129.910	127.015
	Covariance	.576	.685	.646	.632
	N	202	202	202	202
Environment Quality	Pearson Correlation	.858**	.931**	1	.914**
	Sig. (2-tailed)	<.001	<.001		<.001
	Sum of Squares and Cross-products	114.053	129.910	141.451	127.400
	Covariance	.567	.646	.704	.634
	N	202	202	202	202
Opportunity for PD	Pearson Correlation	.860**	.923**	.914**	1
	Sig. (2-tailed)	<.001	<.001	<.001	
	Sum of Squares and Cross-products	112.733	127.015	127.400	137.449
	Covariance	.561	.632	.634	.684
	N	202	202	202	202

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

The Pearson correlation coefficient can be indicated by the strength and direction of the relationship between two variables. Values ranges from -1 to 1:

Where A value of 1 means a perfect positive correlation.

A value of -1 means a perfect negative correlation.

A value of 0 means no correlation.

The p- value < .001 in this case, where A p- value below 0.05 indicates that the correlation is statistically significant. The sample size is consistent to be 202 for all pairs. Thus, employee engagement and career satisfaction, there is a strong relationship which is 0.882 which is a strong positive correlation. The p-value is < 0.001 which means it is highly significant. Secondly, between employee's engagement and environment work quality the correlation is 0.858 and also the p-value is < 0.001 which makes it highly significant. Thirdly, between employee engagement and opportunity for professional development the correlation is 0.860, the correlation between career satisfaction and environment quality is 0.931 which means this correlation has very strong relationship as well as the relationship between career satisfaction and opportunity for professional development which happens to be 0.923 and lastly the relationship between environment work quality and opportunity for professional development which is 0.914 which makes it a very strong positive correlation.

Table 7: Regression Matrix for Work Environment on Career Satisfaction.

Y: Employee Engagement

X: Opportunity for Professional Development

M: Career Satisfaction

W: Environment Work Quality

Sample

Size: 202

OUTCOME VARIABLE:

Career Satisfaction

Model Summary

R	R-sq	MSE	F	df1	df2	p
.9233	.8525	.1015	1156.2734	1.0000	200.0000	.0000

Model						
	Coeff	se	t	p	LLCI	ULCI
constant	.3014	.1200	2.5125	.0128	.0649	.5380
Opportunity	.9241	.0272	34.0040	.0000	.8705	.9777

OUTCOME VARIABLE:
Employee Engagement.

Model Summary							
	R	R-sq	MSE	F	df1	df2	p
	.9073	.8232	.1122	229.2850	4.0000	197.0000	.0000

Model						
	Coeff	se	t	p	LLCI	ULCI
Constant	-.5836	.2556	-2.2834	.0235	-1.0877	-.0796
Opportunity	.6914	.1153	5.9979	.0000	.4641	.9187
Career Sat	.3853	.0909	4.2375	.0000	.2060	.5646
Environment	.6402	.1197	5.3495	.0000	.4042	.8761
Int_1	-.1265	.0228	-5.5517	.0000	-.1714	-.0816

Product terms
Int_1: Opportunity for professional development x Environment Work Quality.

Test(s) of highest order unconditional interaction(s):					
	R2-chng	F	df1	df2	p
X*W	.0277	30.8217	1.0000	197.0000	.0000

Focal predict: Opportunity for professional development(X)
Mod var: Environment Work Quality (W)

Conditional effects of the focal predictor at values of the moderator(s):

Work	Effect	se	t	p	LLCI	ULCI
3.9000	.1981	.0809	2.4482	.0152	.0385	.3577
4.5000	.1222	.0831	1.4699	.1432	-.0417	.2862
5.0000	.0590	.0866	.6808	.4968	-.1118	.2298

Conditional direct effects of X on Y

Work	Effect	se	t	p	LLCI	ULCI
3.9000	.1981	.0809	2.4482	.0152	.0385	.3577
4.5000	.1222	.0831	1.4699	.1432	-.0417	.2862
5.0000	.0590	.0866	.6808	.4968	-.1118	.2298

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
Career Satisfaction	.3561	.0786	.1931	.5029

The regression analysis for the conceptual framework which is opportunity for professional development (x), employee's engagement (y), career satisfaction (m) and Environment work quality (w) moderator. The $R = 0.9233$ indicates a very strong positive relationship between the predictors (opportunity for professional development and career satisfaction). The $R^2 = 0.8525$ approximately 85.25% of the variance in career satisfaction is explained by opportunity for professional development. The $F(1, 200) = 1156.2734$, $p < .001$ means that the model is statically significant, which means the predictors explains significant variance in career satisfaction. The constant is 0.3014, $P = .0128$, the baseline value for career satisfaction when opportunity for professional development is zero. In the case for opportunity for professional development, 0.9241, $P < .001$ has to do with increase in career satisfaction with a confidence interval of (0.8705, 0.977). Therefore, OPD strongly has significant on career satisfaction.

Regression analysis for the model employee engagement (y), the $R = 0.9073$ indicates a very strong positive relationship between the predictors (opportunity, career satisfaction and environment work quality) and employee engagement. The $R^2 = 0.8232$ which is approximately 82.32% of the variance in employee engagement explained by the predictors. The $F(4, 197) = 229.2850$, $P < 0.001$ means the model is significant, the constant which is -0.5836, $P = 0.0235$ when all predictors are zero the baseline for employee engagement is -0.5836. opportunity for professional development is 0.6914, $P < .001$ which means if one unit increase in OPD leads to 0.6914 increase in employee engagement holding other variables constant. A one unit of in career satisfaction leads to a 0.3853 increase in employees' engagement, same as environment work quality which is 0.6402. The interaction between OPD and environment work quality is -0.1265 , $P < 0.001$ in which the negative interaction term suggests that the effect of opportunity for professional development on employee's engagement diminishes as work environment quality improves. The moderation effect (interaction between OPD and WEQ).

The $R^2 = 0.0277$ which in interaction terms accounts for an additional 2.77% of the variance in employee engagement. $F(1,197) = 30.8217$, $P < 0.001$ simply means the interaction is significant and the moderation effect is meaningful. This means that as work environment quality improves, the impact of opportunity for professional development on employee's engagement weakens, eventually becomes non-significant. This suggests that a high-quality work environment may reduce the reliance on professional development opportunities to drive engagement.

The indirect effect 0.3561 opportunity for professional development positively influences employee's engagement through its effect on career satisfaction. The Bootstrapped SE = 0.0786, 95% CI (0.1931, 0.5029) means the confidence interval does not include zero, indicating the indirect effect is statistically significant. This simply means that career satisfaction acts as a significant mediator in the relationship between opportunity for professional development and employee engagement.

3.2 Discussion.

H1 Employee Engagement positively influence career satisfaction. The Pearson correlation coefficient between employee engagement and career satisfaction is 0.882. this is a strong positive correlation indicating that as employee engagement increases career satisfaction also increases significantly. The P-value < 0.001 confirms that the relationship is statistically significant. The regression model analyzing the influence of employee engagement on career satisfaction are the $R = 0.9233$ indicates a strong positive relationship between predictors and career satisfaction. $R^2 = 0.8525$ which indicates approximately 85.25% of the variances in career satisfaction explained by predictors including employee engagement. The $F(1,200) = 1156.2734$, $P < .001$ indicates that the model is statically significant meaning the predictors significantly explain career satisfaction. The mediation analysis confirming that career satisfaction serves as an intermediary factor linking opportunity for professional development and employee engagement. The practical implication as employee engagement as the driver is fostering employee engagement through initiatives like recognition, skill utilization and support will directly enhance career satisfaction. The strategic HR intervention is organizations should prioritize creating engaging work environment to promote overall career satisfaction, as it has a cascading positive effect on other outcomes such as retention and performance.

H2 Career Satisfaction Mediates the relationship between Employee engagement (Independent Variable) and Opportunities for career development (Dependent variable). The direct effect of employee engagement directly increases perceived career development opportunities as evidences by the significant regression coefficient (0.9241, $p < 0.001$) and a strong correlation ($R = 0.860$). The indirect mediated effect on career satisfaction acts as a mediator

between employee engagement and opportunities for career development. The indirect effect (0.3561) is statistically significant showing that engagement positively influence career satisfaction which in turn enhances perceived career development opportunities. Since the direct effect of employee engagement on career development remains strong even with career satisfaction included in the model, this suggests partial mediation. This means that while career satisfaction mediates part of the relationship, engagement also has a direct impact on career development opportunities.

The practical implication is that organization should invest in enhancing career satisfaction (e.g. recognition, meaningful work) to strengthen the link between engagement and career development. Direct engagement initiatives (e.g. training, leadership development) can independently enhance perceptions of career development opportunities. The holistic approach is addressing both engagement and career satisfaction ensures maximum impact on employees' perception of career progression, which is vital for retention and growth.

H3 Work Environment moderates the relationship between Employees Engagement (independent variable) and Career Satisfaction (Mediator). This hypothesis examines whether work environment quality influences the strength or direction of the relationship between employee engagement and career satisfaction. Employee engagement and career satisfaction, $R = 0.882$, $P < 0.001$, a strong positive relationship exists between employee engagement and career satisfaction indicating that higher engagement is associated with higher satisfaction. The $R = 0.931$, $P < 0.001$, means an exceptionally strong positive relationship suggests that employees perceive greater career satisfaction in higher quality work environments. The $R = 0.858$, $P < 0.001$, indicates a strong positive correlation shows that employee engagement is strongly linked to perception of work environment quality.

The interaction term ($X*W$) coefficient = -0.1265 , $P < 0.001$, the negative coefficient suggests that the effect of employee engagement on career satisfaction diminishes as work environment quality improves. This simply means that in high quality work environment, employee engagement has a smaller incremental impact on career satisfaction, as the work environment itself provides much of the needed support. The R^2 change = 0.0277 , $p < 0.001$, indicates the interaction terms accounts for an additional 2.77% of the variance in career satisfaction, indicating that the moderating effect of work environment quality is both meaningful and statistically significant.

The results support the hypothesis that work environment quality moderates the relationship between employee's engagement and career satisfaction. In low quality environment, employee's engagement has a strong positive effect on career satisfaction while in the high-quality environment, this effect diminishes as the work environment itself become the primary driver of career satisfaction. The practical implications are that in low quality work environment, organizations should focus on boosting employee engagement to enhance career satisfaction. While in high quality work environment, the focus can shift to maintaining the supportive environment while ensuring engagement initiatives are not redundant.

H4 Career satisfaction (Mediator) positively influence opportunities for career development (Dependent variable). From the correlation matrix $R = 0.923$, $P < 0.001$, has a strong positive correlation which indicates that higher career

satisfaction is associated with more opportunities for professional development. The $R = 0.9233$, $R^2 = 0.8525$, $F(1,200) = 1156.2734$, $P < 0.001$, the R value indicates strong positive relationship between career satisfaction and opportunities for professional development. The career satisfaction has a strong, positive, and statistically significant effect on opportunities for professional development as shown by the high correlation coefficient ($R = 0.9233$) and regression coefficient ($B = 0.9241$, $p < 0.001$). the variance explained that the career satisfaction a substantial portion (85.25%) of the variance in opportunities for professional development underscoring its importance in influencing perception or availability of professional growth. Employees who feel satisfied in their career are more likely to perceive or gain access to opportunities for career development. this may be because satisfied employees are more motivated to seek and utilize professional development resources or because organizations are likely to invest in employees who demonstrate satisfaction and commitment.

CONCLUSION.

This study investigates how employee engagement influence career satisfaction, with career satisfaction acting as a mediator in the relationship between employee's engagement and opportunities for professional development. It also examines how the work environment moderates the relationship between employee engagement and career satisfaction, and how career satisfaction positively impacts opportunities for career development. The findings highlight the interconnected nature of these variables, emphasizing the critical role of career satisfaction in fostering both employee engagement and perceived opportunities for professional growth.

The methodology applied ensures the reliability and validity of the survey results. Using a calculated sample size of 202 respondent, adjusted to 250 for enhanced reliability, the study achieves a 5% margin error, representing the 5 million employees in Nigeria labor market. By targeting key economic hubs like Lagos, kano, Abuja and port Harcourt. The study captures a diverse and representative sample from Nigeria workforce spanning commercial, public, oil and gas and industrial sectors. This approach not only strengthens the generalizability of the findings but also provides insights into regional variations in career satisfaction and professional development opportunities.

Opportunity for career development is a strong predictor of both career satisfaction and employee engagement. Career satisfaction significantly mediates the relationship between OPD and employee engagement. Work environment quality moderates the relationship between OPD and employee engagement. The effect of OPD weakens as work environment quality increases.

Annex1

QUESTIONNAIRE.

S/N	STATEMENT	NOT AT ALL SATISFIED	DISSATISFIED	NEITHER	SOMEWHAT SATISFIED	ENTIRELY SATISFIED
1.	I am highly motivated to give my best effort at work.					
2.	I feel energized to start my task each day.					
3	I am driven to meet and exceed the expectations set for my role.					
4	I look forward to achieving my goals in the organization.					
5	I am constantly motivated to improve my skills for this job.					

6	My motivation to work remains high, even during challenging times.					
7	I take initiative to go above and beyond my responsibilities.					
8	I am committed to my work goals and career development.					
9	I actively seek opportunities to take on new challenges in my role.					
10	I feel personally fulfilled by the work I do in my current role.					
11	My job provides me with a sense of accomplishment and pride.					
12	I feel a deep sense of satisfaction when I complete my work.					
13	The work I do aligns with my personal values					

	and goals.					
14	I find meaning in the task I perform every day.					
15	I feel a sense of purpose in my role within the organization.					
16	My role gives me a feeling of success and achievement.					
17	I am satisfied with my career in progressing in this organization.					
18	I am satisfied with the progress I have made toward my career goal.					
19	I feel a strong sense of accomplishment in my career.					
20	I am pleased with the way my career has developed me so far.					
21	My career path aligns well with my personal and					

	professional goal.					
22	I feel valued and recognized for my contributions in my career.					
23	My job roles have been fulfilling and rewarding for my career development.					
24	I am confident in the direction my career is taking within this organization.					
25	I am provided with clear opportunities for career advancement.					
26	My organization offers a variety of programs to support my professional growth.					
27	I have access to career development resources and support within my company.					
28	I feel encouraged to pursue learning and development opportunities relevant to my career goals.					

29	I could acquire new skills that are beneficial for my career progression.					
30	My organization promotes career development through mentoring, training and coaching programs.					
31	I am motivated and excited in my current position.					
32	I have a strong commitment to reaching my objectives.					
33	I am proud of the work I perform every day.					
34	I actively participate in activities that advance my professional growth.					
35	I am happy with the way my career has developed within this company.					
36	My present position satisfies my professional goals.					
37	I feel like I've made progress in my career.					
38	Support and open communication are encouraged in my					

	workplace.					
39	I have access to tools that enable me to be successful in my position.					
40	My boss gives me helpful criticism that advances my professional development.					
41	I am content with my career at this point.					
42	I am happy with how far I have come in my job thus far.					
43	I have faith in the direction my career is going within the company					
44	The duties and responsibilities of my current position are in line with my professional objectives.					
45	I am happy with the assistance my company provides for my professional development.					
46	I proactively look for chances to pick up new abilities that will					

	advance my career.					
47	I constantly search for methods to further my career inside the company.					
48	I proactively seek out role-related training and development initiatives					
49	I am proactive in seeking mentorship or guidance to advance my career.					
50	I frequently set new career goals and work towards achieving them.					

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