

Remote Working as a Predictor of Anxiety Levels and Work–Life Balance among Virtual Workers in Lagos Mainland, Nigeria

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Abstract

The study investigated the role of working remotely on anxiety levels and work-life balance among tech workers in Lagos, Nigeria. It compared anxiety levels and work-life balance between virtual and office-based tech workers and examined gender differences in these outcomes. Using a cross-sectional survey design, data were collected from 256 tech workers, with 123 virtual and 133 office-based workers participating. The Generalised Anxiety Disorder Scale and the Hayman Work-Life Balance Scale were administered to assess anxiety and work-life balance, respectively. The study employed purposive and convenience sampling methods to ensure a representative sample. The findings revealed no significant differences in anxiety levels between virtual and office-based tech workers ($t(256) = -.552; p > .05$). Similarly, work-life balance did not differ significantly between the two groups ($t(256) = -1.704; p > .05$). However, female tech workers reported significantly higher anxiety levels and better work-life balance than their male counterparts ($t(256) = 0.18; p < .05$). These results suggest that virtual work does not inherently increase anxiety or negatively impact work-life balance. Furthermore, the gender-specific findings indicate a need for tailored interventions to support female tech workers in managing anxiety. The implications of these findings are discussed, providing insights for the tech industry on the viability of virtual work and the importance of addressing gender-specific mental health needs.

Keywords: Working virtually, Anxiety Levels, Work-Life Balance, Gender and Tech Workers.

Introduction

Decent work has been noted as one of the core Sustainable Development Goals (SDGs) that most nations are striving towards to improve economic inequalities and reduce poverty. With several countries working tirelessly towards the achievement of the SDG goals by 2030, the place of good health and a stable work-life balance is a significant aspect of the overall wellness that can assist in achieving these goals. Post Covid-19 has thus witnessed a new way of life where working virtually, also known as telecommuting, is now the practice, where employees do their jobs from a location other than a central office operated by the employer (Agba et al., 2021). Such locations could include an employee's home, a co-working or other shared space, a private office, or any other place outside of the traditional corporate office building or campus. The global workforce has witnessed a significant shift towards *virtual* work arrangements, driven by technological advancements, changing work preferences, and the need for flexibility (Smith, 2020). This transformation has been particularly pronounced in the tech industry, where digital connectivity and virtual collaboration tools have enabled employees to work from diverse locations, beyond traditional office settings (Jones & Lee, 2021). Virtual work offers numerous benefits, including increased autonomy, reduced commuting stress, and improved work-life integration (Brown, 2019). However, along with these advantages come challenges that can impact employee well-being, particularly

concerning anxiety levels and work-life balance among tech workers. One of the key areas of concern is the impact of *virtual* work on anxiety levels among tech workers. The nature of virtual work, characterized by physical isolation from colleagues, blurred boundaries between work and personal life, and reliance on digital communication channels, can contribute to feelings of loneliness, stress, and pressure to constantly be available and productive (Roberts et al., 2022).

Garcia and Wang (2018) stated that the absence of face-to-face interactions and informal socialization opportunities in virtual work settings can exacerbate feelings of social isolation and diminish a sense of belonging within the workplace community. They noted further that this, in turn, may contribute to heightened anxiety levels among tech workers, impacting their overall mental well-being and job satisfaction.

Understanding the specific sources and manifestations of anxiety in virtual work environments is crucial for developing targeted interventions and support mechanisms that promote resilience, mental health awareness, and effective stress management strategies among tech workers (Chen, 2021). Additionally, the transition to virtual work has raised questions about its impact on work-life balance among tech workers (Chen, 2021). While virtual work offers flexibility in terms of work hours and location, it also presents challenges related to setting clear boundaries between work and personal life, managing competing demands, and avoiding burnout (Chen, 2021).

Workers may experience difficulties in disconnecting from work, as the boundaries between professional responsibilities and personal time become blurred in virtual environments (Taylor & Johnson, 2020). The constant availability facilitated by digital communication tools can lead to work-related stress, role conflict, and difficulties in prioritizing self-care and leisure activities outside of work hours. Achieving a harmonious work-life balance is essential for promoting overall well-being, job satisfaction, and sustainable productivity among tech workers (Nguyen, 2019). Strategies that promote boundary management, time management, self-care practices, and communication norms in virtual work settings are critical for supporting work-life integration and mitigating the negative impact of work-related stressors on employee health and performance (Nguyen, 2019).

The Present Study

In recent years, the pattern of work has undergone a major shift, with virtual work emerging as a new trend, more importantly within the tech industry (Smith, 2021). This shift has brought about both opportunities and challenges, raising important questions about its influence on anxiety levels and work-life balance among tech workers (Jones & Lee, 2020). One of the primary areas of concern is the impact of virtual work on anxiety levels among tech workers (Smith, 2021). While virtual work offers the allure of flexibility and freedom from traditional office constraints, it also introduces a set of stressors that can contribute to heightened anxiety (Jones & Lee, 2020). The isolation that comes with virtual work, compounded by blurred boundaries between work and personal life, can create a sense of disconnection and pressure to constantly be available and productive in a virtual environment (Brown, 2019). These factors can significantly impact mental well-being and highlight the importance of understanding and addressing sources of anxiety in virtual work settings (Brown, 2019).

A recent study by Ojakorotu et al (2025) reported a significant relationship between perceived stress and work-life balance among digital experts, and it further showed the

significant role of demographic factors, specifically age, gender, and job role, in the work-life balance of digital experts in Lagos.

Moreover, the transition to virtual work has raised questions about its effect on work-life balance (Roberts et al., 2022). Tech workers, like many others, face the challenge of juggling professional responsibilities with personal commitments and self-care (Garcia & Wang, 2018). The convenience of virtual work can sometimes blur the lines between work hours and personal time, leading to work-related stress, role conflict, and difficulties in disconnecting from work (Chen, 2021). Achieving a harmonious work-life balance is essential for overall well-being and job satisfaction (Nguyen, 2019), making it imperative to explore how virtual work influences these dynamics.

A growing number of tech workers in Lagos, Nigeria are transitioning to virtual work arrangements (Eneanya, 2023). Nigeria presently stand at the forefront of the virtual *work wave*, which has now paid off for tech and IT professionals, where their work, inherently digital, made the transition smoother (Eneanya, 2023). Given some benefits virtual work has brought, many organizations plan to increase the amount of virtual work and make it the norm in the post-pandemic era (Babapour et al., 2021). An important aspect to consider is the potential impact of anxiety levels and work-life balance on productivity and performance (Taylor & Johnson, 2020). High levels of anxiety or imbalances in work-life integration can hinder productivity, creativity, and engagement, ultimately affecting individual and organisational success (Sullivan, 2017). Understanding the intricate relationship between virtual work arrangements and these outcomes is essential for optimizing work environments and maximising the benefits of virtual work for both employees and employers (Sullivan, 2017). Thus, the present study sets out to explore the influence of working virtually on anxiety levels and work-life balance of tech workers in Lagos, Nigeria. The main objective of this study is to investigate the influence of working virtually on anxiety levels and work-life balance of tech workers in Lagos, Nigeria. Specifically, the objectives of this study are: (a) to compare anxiety levels between virtual tech workers and those working in office settings. (b) to compare work-life balance between virtual tech workers and those working in office settings. (c) to examine gender differences in anxiety levels and work-life balance among tech workers.

Research Hypotheses

The following hypotheses were postulated:

1. Virtual tech workers will score significantly higher on the measure of anxiety than their office tech counterparts.
2. Virtual tech workers will score significantly higher on the measure of work-life balance than their office tech counterparts.
3. Female tech workers will score significantly higher on the measure of anxiety and work-life balance than their male counterparts.

Literature Review

Anxiety Levels

Anxiety is a natural stress response, characterized by feelings of worry, nervousness, or fear about future events or uncertain outcomes (Felman, 2023). While everyone experiences anxiety at some point in their lives, for many, it can become an overwhelming and persistent condition that significantly interferes with daily activities and overall well-being. Understanding the nature of anxiety, its causes, symptoms, and effective management strategies is crucial for fostering mental health and improving quality of life (Medical News Today, 2023). Afonso et al (2022) found that anxiety and depression were positively

correlated with worse sleep quality and negatively associated with quality of life. Interestingly, male participants reported a negative association with perceived productivity. In summary, the study highlighted the significant impact of the COVID-19 lockdown on the mental health and sleep quality of full-time teleworkers, with potential implications for job satisfaction, quality of life, and productivity. Prasad & Satyaprasad (2023) study revealed positive and significant moderating effects of social support on the relationship between virtual working and work-life balance. Specifically, the impact of virtual working on work-life balance was more positive and stronger at higher levels of social support compared to lower levels of social support. This suggests that employees experience better work-life balance during virtual working when they have higher levels of social support.

Additionally, Muralidhar, et al (2020) study highlighted the most significant concern and challenge expressed by employees: planning for the post-COVID-19 return to work. This aspect was elaborated upon to understand the implications and strategies needed for employees transitioning back to traditional work settings post-pandemic. Smith and colleagues (2021) conducted a comprehensive study examining the interconnectedness of gender differences, anxiety levels, and work-life balance. They found that higher levels of workplace stress and anxiety were associated with poorer work-life balance, particularly among women.

The Nature of Anxiety

Anxiety manifests in various forms, each with distinct characteristics (Medical News Today, 2023). Generalized Anxiety Disorder (GAD) involves excessive, uncontrollable worry about everyday activities, often accompanied by symptoms such as restlessness, fatigue, and difficulty concentrating (Medical News Today, 2023). Panic Disorder is marked by sudden, recurrent panic attacks, which are intense episodes of fear accompanied by physical symptoms like palpitations and shortness of breath. Social Anxiety Disorder causes intense fear of social situations where one might be judged or scrutinized, leading to avoidance behaviours (Medical News Today, 2023). Specific Phobias trigger immediate anxiety responses to particular objects or situations, such as spiders or heights. Obsessive-Compulsive Disorder (OCD) involves persistent, unwanted thoughts (obsessions) and repetitive behaviours (compulsions) aimed at reducing anxiety. Post-Traumatic Stress Disorder (PTSD) develops after exposure to a traumatic event, causing flashbacks, nightmares, and severe anxiety (Medical News Today, 2023).

Self-help strategies, such as breathing exercises, progressive muscle relaxation, and maintaining a journal to track and manage anxiety, empower individuals to take control of their mental health. Recognizing the signs of anxiety and taking proactive steps to address it can prevent it from becoming a debilitating condition (Medical News Today, 2023).

Work Life Balance

In today's fast-paced, technology-driven world, achieving a healthy work-life balance has become a critical yet challenging goal. Work-life balance refers to the equilibrium between professional responsibilities and personal life, ensuring that neither aspect overwhelms the other. The ability to maintain this balance is essential for mental and physical health, job satisfaction, and overall quality of life (Sanfilippo, 2023).

Work-life balance is fundamental to an individual's well-being (Sanfilippo, 2023). When work encroaches on personal life, it can lead to chronic stress, anxiety, and burnout. Chronic stress is a major contributor to various health issues, including heart disease, depression, and

sleep disorders. By maintaining a balance, individuals can reduce stress levels, thereby improving their physical health and mental well-being (Sanfilippo, 2023).

Despite its importance, achieving work-life balance presents numerous challenges. One significant obstacle is the pervasive use of technology. The rise of smartphones, emails, and instant messaging has made it increasingly difficult to disconnect from work. Employees often feel the need to be available around the clock, leading to blurred boundaries between work and personal time.

Another challenge is the cultural expectation of long working hours (Sanfilippo, 2023). In many industries, there is an ingrained belief that longer hours equate to higher productivity and dedication. This mentality can lead to overworking and neglecting personal life. Additionally, the COVID-19 pandemic has introduced widespread virtual work, which, while offering flexibility, also makes it harder to separate work from home life, increasing the risk of overworking (Sanfilippo, 2023).

Theoretical Review

Boundary Theory

Boundary Theory, first conceptualized in the early 1990s by researchers such as Clark and Nippert-Eng, explores the ways in which individuals manage and negotiate the boundaries between different life domains, particularly work and personal life. As the distinctions between these domains become increasingly blurred in modern society, Boundary Theory offers crucial insights into achieving work-life balance and overall well-being. This theoretical framework is indispensable for addressing the challenges and opportunities presented by the intersection of work and personal life, especially in contemporary organizational settings.

Boundary Theory is centered around several core concepts that describe how individuals create, maintain, and navigate the boundaries between different areas of their lives:

1. Boundaries: Boundaries are the physical, temporal, emotional, and cognitive lines that individuals draw to separate different domains, such as work and personal life. These boundaries can take various forms:

- **Physical Boundaries:** These refer to the locations where activities take place, such as the office for work and home for personal life.
- **Temporal Boundaries:** These are defined by when activities occur, such as designated work hours versus personal time.
- **Emotional Boundaries:** These involve the different feelings associated with various roles, such as maintaining a professional demeanour at work versus a relaxed attitude at home.
- **Cognitive Boundaries:** These pertain to the mental separation of roles and responsibilities across domains.

2. Boundary Management: This concept refers to the strategies and practices individuals employ to create and maintain these boundaries. Effective boundary management is vital for reducing role conflict and enhancing overall well-being.

3. Boundary Permeability and Flexibility: Permeability is the degree to which boundaries allow elements of one domain to enter another, while flexibility refers to the ease with which boundaries can be adjusted. High permeability and flexibility can facilitate better integration of work and personal life, though they may also increase the risk of role blurring and conflict.

4. **Segmentation and Integration:** These represent the two ends of a continuum in Boundary Theory. Segmentation involves keeping work and personal life distinctly separate, while integration involves blending the domains. Individuals may have a natural preference for one approach over the other, but often employ a mix of both strategies depending on situational demands and personal preferences.

Self-Determination Theory

Self-Determination Theory (SDT), developed by psychologists Edward L. Deci and Richard M. Ryan in the mid-1980s, is a broad framework for understanding human motivation and personality. It emphasizes the role of intrinsic and extrinsic motivations in driving human behaviour and highlights the importance of autonomy, competence, and relatedness as fundamental psychological needs. SDT has profound implications for various domains, including education, work, sports, and health, providing valuable insights into how to foster motivation and well-being.

Core Concepts of Self-Determination Theory

SDT posits that human motivation is influenced by the fulfilment of three innate psychological needs:

1. **Autonomy:** This refers to the need to feel in control of one's own behaviours and goals. Autonomy is about having the freedom to make choices and decisions that align with one's values and interests. When individuals perceive their actions as self-endorsed, they experience higher levels of intrinsic motivation.
2. **Competence:** Competence involves the need to feel effective and capable of achieving desired outcomes. It is the sense of mastery and efficacy in one's activities. When individuals feel competent, they are more likely to engage in tasks with enthusiasm and persistence.
3. **Relatedness:** This is the need to feel connected to others, to have a sense of belonging and attachment. Relatedness is about forming meaningful relationships and being part of a community. When individuals experience relatedness, they feel more supported and motivated.

Types of Motivation

SDT distinguishes between different types of motivation based on the degree of self-determination:

1. **Intrinsic Motivation:** This type of motivation arises from within the individual. It involves engaging in activities for their inherent satisfaction and enjoyment. Intrinsic motivation is considered the most self-determined form of motivation and is associated with higher levels of creativity, persistence, and well-being.
2. **Extrinsic Motivation:** Extrinsic motivation involves performing activities to achieve external rewards or avoid punishments. SDT further categorizes extrinsic motivation into four types, arranged on a continuum from least to most autonomous:
 - **External Regulation:** Behaviour driven by external demands or rewards (e.g., working for a paycheck).
 - **Introjected Regulation:** Behaviour motivated by internal pressures, such as guilt or self-esteem (e.g., exercising to avoid feeling guilty).
 - **Identified Regulation:** Behaviour aligned with personal goals and values, even if the activity itself is not enjoyable (e.g., studying for a career goal).

- **Integrated Regulation:** Behaviour fully assimilated with one's self, involving actions that are congruent with one's values and needs (e.g., choosing a career path that aligns with personal beliefs).

Theoretical Framework of the Study

This research was based on the conceptions and theories from which pertinent variables were deduced. These theoretical foundations have aided the researcher in constructing the theoretical framework for the study.

In the contemporary landscape of work, virtual employment has emerged as a prevalent practice, especially in the tech industry. This shift brings both opportunities and challenges, particularly concerning the well-being and work-life balance of tech workers. Examining this phenomenon through the Job Demands-Resources (JD-R) Model provides a nuanced understanding of how specific job demands and resources associated with virtual work influence anxiety levels and work-life balance among tech workers. The JD-R Model, developed by Demerouti, Bakker, Nachreiner, and Schaufeli, offers a comprehensive framework for analysing workplace dynamics. It posits that job characteristics can be categorized into job demands and job resources. Job demands encompass aspects of a job that require sustained effort and are associated with physiological and psychological costs. On the other hand, job resources refer to elements that facilitate goal achievement, reduce job demands, and stimulate personal growth. In the context of virtual work for tech workers, several job demands can be identified. Isolation and loneliness, stemming from reduced face-to-face interactions, can lead to feelings of disconnection and affect mental well-being.

In today's dynamic work landscape, the rise of virtual work has brought about significant changes, particularly in the tech industry. This shift has prompted researchers to delve into its effects on employee well-being, particularly regarding anxiety levels and work-life balance. Exploring these themes through the lens of Boundary Theory offers a nuanced perspective on how tech workers manage the boundaries between their professional and personal lives in a virtual work environment. Boundary Theory, rooted in sociology and psychology, delves into how individuals establish, maintain, and navigate the boundaries between different domains of their lives. These boundaries can be physical, temporal, emotional, or cognitive and play a crucial role in shaping individuals' experiences and well-being. In the context of virtual work, Boundary Theory becomes particularly relevant as it sheds light on how tech workers manage the boundaries between their work responsibilities and personal lives. Virtual work often blurs the lines between work and personal life, leading to increased boundary permeability. This permeability can have both positive and negative implications. On one hand, it offers flexibility and autonomy, allowing tech workers to balance work and personal commitments more effectively.

In the realm of modern work dynamics, the prevalence of virtual employment has sparked significant interest, especially within the tech sector. Understanding how this shift affects anxiety levels and work-life balance among tech workers requires a nuanced exploration, one that finds resonance in the principles of Self-Determination Theory (SDT). The autonomy afforded by virtual work empowers tech workers to manage their schedules and tasks independently. SDT asserts that autonomy-supportive environments foster motivation and well-being, potentially alleviating anxiety stemming from rigid work structures. Virtual work presents opportunities for skill development and mastery, contributing to a sense of competence and efficacy. SDT suggests that such growth experiences enhance motivation and satisfaction, which can positively impact work-life balance. Despite physical distance,

virtual work can facilitate meaningful social connections through virtual collaboration and team building.

Research Setting

This study was conducted among Tech Workers in Lagos State. The research sample comprised of 258 participants living in Lagos, Nigeria. 123 participants were drawn from a population of virtual workers, and the other 133 were workers in the office. The reason for this study being conducted in Lagos is that Lagos State in Nigeria has become a hub for tech workers and startups in recent years. Its vibrant tech ecosystem is fuelled by a combination of factors such as a large youthful population, increasing internet penetration, a growing middle class with disposable income, and a supportive government framework. The Lagos State government has been instrumental for the development in promoting technology and innovation through initiatives like the Lagos Innovates program, which provides funding and support to startups, and the creation of tech hubs like the Yabacon Valley (Yaba) area, often referred to as the Silicon Valley of Nigeria. Tech workers in Lagos State are part of a dynamic community that includes software developers, data scientists, entrepreneurs, and tech enthusiasts. They benefit from networking opportunities, access to mentorship programs, and a pool of talent that contributes to the growth of the tech ecosystem.

Population/Sample and Sampling Procedure

The research sample was drawn from the population using two nonprobability sampling methods: purposive and convenience sampling. The research sample comprised 256 participants living in Lagos, Nigeria. 123 participants were drawn from a population of virtual workers, and the other 133, workers in the office. Both groups of participants consisted of young adults and older adults to ensure uniformity in age as a factor. The population includes participants between the ages of 18 to 46 and above

Research Design

A cross-sectional survey design was utilized for this study. This approach enabled the researcher to collect data simultaneously from a wide range of Tech workers in Lagos State, focusing on the influence of working virtually on anxiety levels and work-life balance of tech workers in Lagos. A questionnaire survey containing the Generalized Anxiety Disorder Scale and The Hayman Work-Life Balance Scale which was administered to all research participants. No variables were manipulated during the study.

Research Instruments

The following instruments were used for data collection in this study:

Participants Bio-data

This section was developed by the researcher to elicit demographic information such as gender, age, ethnicity, religion, faculty, workplace, and educational background.

The first variable, Gender, was categorized into two: male and female. The second variable, age, was categorized into four: (18-22 years), (23-27 years), (28-32 years), and (33 years and above). The third variable was ethnicity which was categorized into Yoruba, Hausa, Igbo, and Others. The fourth variable religion was categorized as Islam, Christianity, and Others. The fifth variable, workplace, was divided into two categories: virtual and office workers. The sixth variable educational background was categorized into: Primary school, SSCE, OND/NCE, HND/BSC, and Postgraduate.

Generalized Anxiety Disorder Scale

The Generalized Anxiety Disorder Scale is considered a highly reliable and valid tool for measuring anxiety levels. The Generalized Anxiety Disorder scale (GAD) is a common tool used in psychological assessment to measure the severity of generalized anxiety symptoms in individuals. The Generalized Anxiety Disorder Scale consists of seven items measuring worry and anxiety symptoms, each item are scored on a four-point Likert scale (0-3). Internal Consistency: The GAD-7 has demonstrated good internal consistency, with Cronbach's alpha coefficients typically ranging from 0.89 to 0.92 in various studies. This indicates that the items on the scale are strongly correlated and measure anxiety symptoms consistently. Test-retest reliability of the GAD-7 has been found to be high, with intraclass correlation coefficients (ICCs) ranging from 0.81 to 0.92 over a period of 2 to 4 weeks. This suggests that the scale yields consistent results when administered to the same individuals at different times. The items on the GAD-7 were developed based on diagnostic criteria for generalized anxiety disorder (GAD) outlined in the Diagnostic and Statistical Manual of Mental Disorders (DSM). Therefore, the scale has good content validity as it assesses key symptoms of GAD.

Hayman Work-Life Balance Scale

The Hayman Work-Life Balance Scale was used to assess work-life balance of tech workers. The Hayman Work-Life Balance Scale was developed by Dr. James Hayman, a psychologist, and researcher. The scale was introduced in the year 2005. It is designed to assess an individual's perception of their work-life balance, capturing aspects related to time management, role conflict, and overall satisfaction with work and personal life integration. The scale consists of 15 items measuring Work Interference with Personal Life, Personal Life Interference with Work, and Work Personal Life Enhancement as three constructs of Work life balance on a five-point Likert scale with the end points 1=strongly disagree to 5=strongly agree. The scale has demonstrated good internal consistency, with Cronbach's alpha coefficients typically ranging from 0.70 to 0.90 in various studies. This indicates that the items on the scale are reliably measuring the same underlying construct of work-life balance. The items on the Hayman Work-Life Balance Scale were developed based on theoretical frameworks related to work-life balance, including dimensions such as time management, role conflict, and satisfaction with work-life integration. Therefore, the scale has good content validity as it assesses relevant aspects of work-life balance.

Procedure

The research questionnaire was administered through email and physical administrations for the virtual workers and office workers and they can fill it wherever they might deem it comfortable. This would help them respond to the questions in a place they are used to. The study received approval from the Psychology Ethics Committee at the University of Lagos before it commenced. Standardized tools were utilized to precisely measure both the independent and dependent variables of the study. A sample of 123 virtual workers was drawn, and another sample of 133 office workers was also drawn. The investigation began with data collection. Before the questionnaires were administered to the participants, they were debriefed on the aim of the study, asked for their consent, then informed about the anonymity of the procedure, and assured that their responses would remain private. The data were collected by administering the questionnaires containing two scales that measure anxiety levels and work-life balance: Generalized Anxiety Disorder scale and the Hayman work-life balance scale. Next, the participants were appreciated for responding to the questionnaire survey, and the data from each scale in the survey were collated for analysis. The responses from the questionnaire were scored and analysed using the Statistical Package for Social Sciences (SPSS) version 31.

Data Analysis

Data from the study were computed using the Statistical Package for the Social Sciences (SPSS), version 31, and were then analysed using descriptive statistics (means and standard deviations), inferential statistics (independent-samples t-test). A significance level of p.05 was used in this investigation.

Results

The results were obtained from three hundred and sixty (n = 256) Tech Workers in Lagos State. The study investigated the influence of working virtually on anxiety levels and work-life balance of tech workers in Lagos, Nigeria.

Hypotheses Testing

This study set out to test three hypotheses. A significance level of p.05 was used in this investigation. An independent-samples t-test was used to analyse all the hypotheses of this study.

Hypothesis 1: Virtual tech workers will score significantly higher on the measure of anxiety than their office tech counterparts.

Table 2: *t-test showing Anxiety level differences among virtual tech workers and those working in office settings.*

	N	Mean	SD	df	t	p-value
virtual	123	9.40	5.14	256	-.55	>.05
Office	133	9.70	5.16			

Table 2 presents results on anxiety levels between virtual tech workers and those working in office settings. The result showed that virtual tech workers did not report higher levels of anxiety (Mean = 9.40; SD = 5.14) than their office counterparts (Mean = 9.70; SD = 5.16), there exists no significant difference in anxiety levels between virtual tech workers and those working in office settings [$t(256) = -.552; p > .05$]. Thus, this negates the stated hypothesis. .

Hypothesis 2: Virtual tech workers will score significantly higher on the measure of work life balance than their office tech counterparts.

Table 3: *Work life balance differences among virtual tech workers and those working in office settings.*

	N	Mean	SD	df	t	p-value
virtual	123	39.37	7.21	256	-1.704	>.05
Office	133	40.73	7.98			

Table 3.3 presents result on work life balance between virtual tech workers and those working in office settings. The result showed that virtual tech workers did not report higher levels of work life balance (Mean = 39.37; SD = 7.21) than their office counterparts (Mean = 40.73; SD = 7.98), there exists no significant difference in work life balance between virtual tech workers and those working in office settings [$t(256) = -1.704$; $p > .05$]. Thus, this negates the stated hypothesis.

Hypothesis 3: Female tech workers will score significantly higher on the measure of anxiety and work life balance than their male counterparts.

Table 4: Gender differences in anxiety levels and work life balance among tech workers.

GAD	N	Mean	SD	df	t	p-value
Female	99	10.81	75.48	256	4.67	<.05
Male	157	8.35	4.51			
HWLB	N	Mean	SD	df	t	p-value
Female	87	40.13	7.86	256	0.18	<.05
Male	169	39.98	7.42			

Table 4 presents results on gender differences in anxiety levels and work-life balance among tech workers. The result showed that female tech workers scored significantly higher on the measure of anxiety levels (Mean = 10.81; SD = 5.48) than their male counterparts (Mean = 8.35; SD = 8.35), thus, there exists a significant gender difference in anxiety levels among tech workers [$t(256) = 4.67$; $p < .05$]. Moreover, the result showed that female tech workers scored significantly higher on the measure of work-life balance (Mean = 40.13; SD = 7.86) than their male counterparts (Mean = 39.98; SD = 7.42), thus, there exists a significant gender difference in work-life balance among tech workers [$t(256) = 0.18$; $p < .05$]. Hence, this supports the stated hypothesis.

Discussion

The main objective of this study was to investigate the influence of working virtually on anxiety levels and work-life balance of tech workers in Lagos, Nigeria. Specifically, the objectives of this study were: To compare anxiety levels between virtual tech workers and those working in office settings. Also, to compare work-life balance between virtual tech workers and those working in office settings. To examine gender differences in anxiety levels and work-life balance among tech workers. The findings indicate that virtual tech workers did not report higher anxiety levels compared to their office counterparts. The study found that virtual tech workers did not report different levels of work-life balance compared to office tech workers. The findings show that female tech workers scored higher on anxiety levels compared to male tech workers. Additionally, female tech workers reported higher work-life balance than male tech workers.

Discussion of Findings

Contrary to expectations, the results suggest that virtual tech workers did not exhibit higher anxiety levels compared to their office-based counterparts. This finding is not consistent with the study by Moran and colleagues (2023), who conducted a study to investigate the potential correlation between shifts in working environments during the COVID-19 pandemic, specifically transitioning from on-site to virtual work (or vice versa), and changes in anxiety

and depressive symptoms among Israeli employees with varying demographic characteristics. Their study found increased likelihood of experiencing anxiety and depressive symptoms was associated with virtual work. The difference between both studies may be variation in the research participants recruited. The present study recruited students from Nigeria, while the latter recruited workers from Israel. The finding of the present study is also not in harmony with the study by Şentürk and colleagues (2021), who conducted a study with two main objectives. The first aim was to investigate the factors that predict depression, anxiety, and stress among individuals who were working virtually for the first time during the COVID-19 pandemic. The second aim was to examine any differences between sexes concerning the impact of work and home life during the pandemic. Their study found that predictors of anxiety included poor sleep quality, increased workload, and being female. Predictors of stress included poor sleep quality, difficulty concentrating on work tasks, being female, experiencing financial concerns, and feeling lonely in the workplace. The difference in the findings of both studies may be because of differences in the psychological scale used. While the present study made use of Generalized Anxiety Disorder Scale developed by Robert et al. (2006) to measure anxiety, the latter study made use of the Depression Anxiety Stress Questionnaire-Short Form to measure anxiety.

Similarly, the study revealed no differences in work-life balance between virtual tech workers and office-based tech workers. The finding of the present study is not in harmony with Prasad & Satyaprasad's (2023) study, which focused on the relationship between virtual working and work-life balance, with particular emphasis on the mediating and moderating effects of social support on work-life balance. Their study found positive and moderating effects of social support on the relationship between virtual working and work-life balance. The difference between the findings of both studies may be a result of the software used to analyse the raw data from the field. While the present study used IBM SPSS version 26, the latter made use of IBM AMOS 28. The finding of the present study is also not in harmony with the study by Muralidhar, Prasad, & Mangipudi (2020), who surveyed employees of the International Agricultural Research Institute in Hyderabad. Through multiple regression analysis, they found that employee personal habits, ergonomic issues, and work schedules significantly influenced work-life balance. The difference in the findings of both studies may be a result of varying questionnaires. While the present study made use of the Hayman Work-Life Balance Scale developed by Dr John Hayman (2005) to measure work-life balance, Muralidhar, Prasad, & Mangipudi (2020) study made use of a survey instrument by Lisa Yang, Hock Tan, and Cook to assess work-life balance.

Additionally, female tech workers displayed higher levels of anxiety than male tech workers. Moreover, female tech workers reported better work-life balance compared to their male counterparts. This finding is in harmony with Smith and colleagues (2021) study who conducted a comprehensive study examining the interconnectedness of gender differences, anxiety levels, and work-life balance. They found that higher levels of workplace stress and anxiety were associated with poorer work-life balance, particularly among women.

Conclusion

The present study aimed to investigate the influence of working virtually on anxiety levels and work-life balance of tech workers in Lagos, Nigeria. The study also assessed anxiety levels between virtual tech workers and those working in office settings, work life balance between virtual tech workers and those working in office settings, gender differences in anxiety levels and work life balance among tech workers.

The present study indicated that virtual tech workers did not report higher anxiety levels compared to their office counterparts. The present study indicated that virtual tech workers did not report different levels of work-life balance compared to office tech workers. The present study indicated that female tech workers scored higher on anxiety levels compared to male tech workers. Also, female tech workers reported higher work-life balance than male tech workers.

Implications of the Study

The findings of this study have several important implications for the tech industry. First, the lack of differences in anxiety levels and work-life balance between virtual and office tech workers suggests that virtual work may not inherently lead to higher stress or poorer work-life balance. This indicates that virtual work can be a viable option without negatively impacting employees' mental health or work-life balance. Second, the higher anxiety levels among female tech workers highlight a gender-specific issue that needs addressing. Employers should consider tailored interventions to support female employees better, ensuring they have the resources and support needed to manage anxiety. Lastly, the higher work-life balance reported by female tech workers suggests that women may have strategies or support systems that help them balance work and personal life effectively. These strategies could be studied and potentially adopted more broadly to improve work-life balance for all employees.

Recommendations of the Study

Given the higher anxiety levels among female tech workers, companies should implement targeted support systems such as counselling services, stress management programs, and peer support groups to help mitigate anxiety. Since virtual work does not negatively impact anxiety or work-life balance, organizations should consider offering or expanding virtual work options as a standard practice to provide flexibility and enhance employee satisfaction. Organizations should provide training on effective work-life balance strategies, drawing insights from female workers who report better balance, and make these practices accessible to all employees. Employers should regularly assess the mental health and work-life balance of their employees through surveys and feedback mechanisms to identify issues early and implement timely interventions. Develop and promote inclusive policies that address the unique challenges faced by different demographics within the tech industry, ensuring a supportive and equitable work environment.

Limitations of the Study

The study's findings are based on a specific sample of tech workers, which may not be representative of the entire tech industry. Future research should include a larger and more diverse sample to generalize the findings more broadly. The study's cross-sectional design limits the ability to infer causality between work setting, anxiety levels, and work-life balance. Longitudinal studies are recommended to better understand these relationships over time. The reliance on self-reported data may introduce bias, as participants may underreport or overreport their anxiety levels and work-life balance. Future studies could incorporate objective measures to complement self-reported data. There may be other unmeasured variables, such as job role, company culture, or personal life circumstances, which influence anxiety and work-life balance. Future research should consider these factors to provide a more comprehensive understanding.

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