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Working from Home: Impact of COVID-19 on Employee Motivation and Job Satisfaction among Non-Academic Staff at a Public University in South Africa

Miruka, Dorothy

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MASTERS DEGREE IN HUMAN RESOURCE MANAGEMENT

Working from Home: Impact of COVID-19 on Employee Motivation and Job Satisfaction among Non-Academic Staff at a Public University in South Africa.

Researcher: Dorothy Miruka

Student Number: 1103536

Research Supervisor: Aretha Mazingi



Research dissertation submitted in fulfilment of the requirements for the degree of Master of Commerce by Dissertation in the field of Human Resource Management in the Faculty of Commerce, Law and Management at the University of the Witwatersrand, Johannesburg, February 2023.

DECLARATION

I, Dorothy Anyango Miruka, hereby declare that this research dissertation is my own, unaided work. It is being submitted in fulfilment of the requirements for the degree of Master of Human Resource Management at the University of the Witwatersrand, Johannesburg. This dissertation has not been submitted before for any degree or examination in this or any other university.

I further declare that:

- **I am aware that plagiarism (the use of someone else's work without their permission and/or without acknowledging the original source) is wrong.**
- **I have followed the required conventions in referencing the thoughts and ideas of others.**
- **I understand that the University of the Witwatersrand may take disciplinary action against me if there is a belief that this is not my own unaided work or that I have failed to acknowledge the source of the ideas or words in my writing.**

Signature ----------

Date _____

February 2023

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Abstract

This study explores the motivation and job satisfaction of the non-academic staff at a public institution of higher education in South Africa during the pandemic. This study investigates the motivation and job satisfaction of the non-academic staff at a public institution of higher education in South Africa during the pandemic. The pandemic brought challenges to society forcing various practices from work to travelling and daily responsibilities. This resulted in both employers and employees seeking alternative work arrangements. This research is on the impact of COVID-19 on employee motivation and job satisfaction on employees while they were working from home (WFH). Utilizing a quantitative research design, the study used a survey research methodology. Primary data was collected from 354 non-academic employees, using a 7 Likert questionnaire. The quantitative data results were analyzed using R studio (version 3.6.3). Multiple linear regression was carried out, data findings were then discussed presenting the results using and graphs. From the empirical results, the research found that there is a correlation between motivation and job satisfaction. These results indicate that there are correlations of sets of relationships between WFH, motivation, job satisfaction, and technological skills.

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CHAPTER 1

INTRODUCTION

1.1 Overview

The abrupt transition from working in the office to working from home (WFH) became the new normal and critical in curbing the spread of the COVID-19 virus. Most organizations were unprepared and had no formal policy on how to transition to the new work approach. Organizations were forced to quickly decide on how to transition their operations to telecommuting for business continuity, and survival. Consequently, many companies were forced to downsize, with many workers losing their jobs. Through mobile and Internet-based technologies the workforce was allowed to work from home or remotely, and this prevented issues such as absenteeism as well as the spreading of the disease during the pandemic (Abilash & Siju, 2021). However, these forced decisions were challenging for some employees, particularly those who have never encountered remote working and those who were not technologically savvy and unable to work effectively work from home. Such issues may have caused stress and affected workers' well-being as they were pressured to work without proper training in the use of digital technology (O'Bannon, 2020). Due to the lockdown caused by COVID-19, many employees who were parents or had older relatives living with them could not work well from home since the children and older relatives needed to be taken care of therefore interfering with work responsibilities hence reducing job satisfaction and employee motivation (Galvez, Tirado, & Martinez-Arguelles, 2020). To reduce the spread of COVID-19, the government became stricter as a result parents were required to provide child care, social interactions had to be limited, and some forms of recreation were no longer possible (Abilash & Siju, 2021). WFH has also identified areas where physical space is needed in home office environments during the COVID-19 pandemic. Notably, not all workers have access to dedicated workspaces in their homes, which can result in them sharing their workspaces, for example with children who have to go to school remotely (Galvez et., 2020). Due to the restrictions placed on human and vehicular movements as a result of the pandemic, university instructors in South Africa and around the world were forced to work from home and change their face-to-face delivery mode of instruction to an online or virtual mode (Badaru, Adu, Adu, & Duku, 2022). However, employees can now alternate between WFH and their workplace depending on the company regulations for two or three days a week. The COVID-19 pandemic made many organizations re-think how and where their employees work, examining how they are responding to challenges and how they could navigate through those challenges of a

changing working environment and using technology to keep their businesses running as usual (Shareena & Shahid, 2020).

Although various studies confirm that WFH has increased in organizations; DeVries, Tummers, & Bekkers (2019) state that the advantages of WFH have been undermined by professional isolation and have ruined organizational commitment. Furthermore, WFH's association with disconnection from work colleagues may lead to detrimental effects such as lack of job satisfaction, high turnover, and even ill health (Wang, Albert, & Sun, 2020). WFH has also been reported to harm individual work responsibilities (Palumbo, 2020). Another negative outcome of WFH is that the relationship between employees and supervisors is hampered due to less communication which is only done electronically, which in turn makes it difficult for employee performance to be recognized and this can lead to low motivation and job satisfaction (Susilo, 2020).

Work prerequisites, conditions, and facilities of the work environments remain critical even when employees work from home. According to Raziq & Maulabakhsh (2015), a good working environment has a positive effect on job satisfaction and motivation of employees, resulting in a positive impact on an organization's productivity. A good work environment is a condition that allows employees to do their jobs healthily and comfortably which enables them (employees) to achieve a high level of satisfaction and become motivated to perform extra tasks for the organization (Al-Omari & Okasheh, 2017). The working hours allow people to schedule their work, which helps them to work around the schedule and this enables them to have a work-life balance. It also gives workers autonomy that allows them to decide how to perform their duties. With the COVID-19 pandemic outbreak and given the closure of schools and parents' WFH, therefore they had to juggle between working and taking care of their children. This was challenging, especially for women, which could affect motivation and job satisfaction (Feng & Savani, 2020). However, despite having more duties than males, research has found that women report better levels of job satisfaction (Moors, Malley, & Stewart, 2014).

An employee is an essential resource of a company and the success of a company depends on the employee (Susilo, 2020). Therefore, it is important to ensure that employee job satisfaction is taken into account when WFH. The management also needs to ensure that employees understand the policies and strategies put in place to overcome the impacts of

demotivation and dissatisfaction such as low morale. Employees are motivated in different ways, some are driven by money, others by recognition and non-monetary rewards, and others become motivated when their psychological needs for autonomy and competence are satisfied (Kalogiannidis, 2021). Working as a team with colleagues also increases the opportunity to develop supportive behaviour and achieve job satisfaction; however, these prospects for teamwork diminish when employees work from home in isolation (Rysavy & Michalak, 2020). Therefore, this research studies the effects of working from home on employee motivation and job satisfaction, focusing on non-academic staff at a public tertiary institution in Gauteng. Non-academic employees at tertiary institutions are considered a fitting laboratory for examining these effects because by motivating these staff, there will be an increase in productivity and efficiency which determine the high quality of learning.

1.2 Background of the Study

The workplace and work environments were changed in various ways by the COVID-19 pandemic. A major impact of the pandemic was the increase in work/study from home by academics, support staff, and students at universities and colleges. In response to the emergency, most universities and colleges around the world postponed many on-campus activities, organized work-from-home opportunities, and provided faculty, staff, and students with access to online digital platforms for tele-education and distance learning (Ahmadi, Zandi, Cetrez, & Akhavan, 2022). Research by Januarty, Edward, Pakpahan, & Purba (2020) explains the working environment as the surroundings of the workers, physical or non-physical, which can affect them either positively or negatively when performing their duties. Similarly, Setiyani, Djumani, Setyo, & Lenny (2019) reported that a better work environment acts as a motivator in improving the satisfaction and motivation of employees in any given organization; in other words, the quality of the work environment influences employees' level of satisfaction. Research by Yandi (2022) also reported that the work environment is crucial because it affects creativity by influencing employees' intrinsic motivation to perform a task. Gagne & Deci (2005) ascertains that employees who experience more positive work outcomes are those who work in environments that facilitate the experience of need satisfaction.

However, employees who work in environments where their needs are actively thwarted experience feelings of rejection, discomfort, and oppression and are more likely to experience dysfunction at work (Bartholomew, Ntoumanis, Ryan, Bosch, & Thogersen-Ntoumani, 2011).

In their study, Kniffin, Narayanan, Anseel, Antonakis, Ashford, Bakker & Vugt (2021) discovered that poor working conditions increase job dissatisfaction while Diamantidis & Chatzoglou (2019) identify a positive relationship between the working environment and employee performance. The authors further elaborate that the working environment affects employee productivity, performance, as well as capability to be proactive, and productive. Hence employers should note the significant impact on employee motivation and job satisfaction when WFH. Therefore as employers, they need to look at aspects of work the environment that encourages satisfaction such as the design of the job, employees' psychological needs, and employee/leader relationships among others.

One important aspect of the work environment that affects employees is WFH, although the researcher is unaware that many studies have been conducted in the South African context. According to Gao & Sai (2020), employees experience isolation when WFH. Due to the COVID-19 pandemic, social distancing measures were put in place and most employees transitioned to remote work, while others transitioned to rotational work using communication technologies. In recent years, there have been arguments that employees who are WFH are more productive due to fewer distractions from co-workers whereas others disagree, arguing that home environments are not the best (Dockery & Bawa, 2014). However, Allen, Golden, & Shockley (2015) argue that WFH through telecommuting helps employees cope with work and family responsibilities. The researchers further argue that although the new trend remains questionable, it makes workers feel safe. In addition, employees can flexibly decide how they balance work and home errands and from a cost perspective, they do not have to bear any travel expenses to commute to the office. Rupietta & Beckmann (2018) agree that WFH has a remarkable positive impact on employees' motivation as the two complement each other.

Studies by Oulasvirta, Rattenbury, Ma, & Raita (2012) Suggest that for remote workers, technology is the driving force behind organizational change and enabling WFH. The use of technology has rapidly changed the habits, social structures, and interactions of the work environment. Technology has advanced and the opportunities to work remotely have

increased, employees are now realizing they can have more autonomy, which companies seem increasingly willing to allow (Grant, Wallace, & Spurgeon, 2013). The transition to WFH has necessitated new skills for employees to perform their duties satisfactorily. For instance, employees require technological skills to use the internet for easy access to information and to be able to solve problems online (Brodeur, Clark, Fleche, & Powdthavee, 2021). Otherwise, it is difficult for people with low technological skills to work from home. Consequently, employers need to invest more in training and personal development as a means of increasing job satisfaction, motivation, and performance, and perhaps less so in financial rewards (Schmidt, 2007).

The growth of digital technology has contributed to both positive and negative impacts on workplaces, job skills, and competencies. Technology has transformed work relationships and communication systems that separate workers from formal workplaces and employers (Ruyter, Brown, & Burgess, 2019). Digital technology is transforming the workforce faster than before increasing unemployment. With most employees WFH, the competing forces of 2030 have been accelerated by the new normal due to COVID-19 restrictions (Khalil, Elsaay, & Othman, 2017). Brown, et al.,(2017) indicates that by the year 2030, there will be an achievement in technological breakthrough, rapid urbanization, and change in global economic power. Hence, the new normal was made possible by the rapid development of technology. With most companies requiring their employees to socially isolate, while others chose to alternate between office and remote working, many governments have had to consider developing laws related to teleworking, hence the growth of the fourth industrial revolution (Bonilla-Molina, 2020). Employees, therefore, had to use technology to execute their tasks, and continuously update their knowledge and skills not only to increase productivity but also to increase their employability (Man & Man, 2019). Such an investment would cultivate a work environment that fosters motivation, leading to higher employee performance and the achievement of organizational goals (Setiyani et al., 2019).

Given the above observations, this study aims to determine the effect of WFH due to Covid-19 on employee motivation, and job satisfaction among non-academic employees at a public tertiary institution in Gauteng, South Africa.

1.3 Research Problem

Changes in the work environment and changes in working conditions play a significant role in employee motivation and satisfaction where a job is concerned (Abilash & Siju, 2021). Due to the COVID-19 outbreak, the work environment largely changed from the standard office setting to WFH. According to Jamal, Anwar, Khan, and Saleem (2020), this 'new normal' affected employees in various ways. One of the problems emerging from WFH was professional isolation, in which workers were distanced from their colleagues (Wang, Albert, & Sun, 2020). As a result, the employees developed a feeling of disconnection from critical networks of influence, and social contacts, which prevents them from getting recognition and sharing their output, support, and goals (Susilo, 2020). Shared norms developing in teams exert a strong influence on workers, however, because employees were WFH, building trust and sharing experiences among workers became difficult for them to work as a team (Allen, Golden, & Shockley, 2015). WFH also disrupts teamwork especially when team members have been carefully chosen to complement each other's strengths and to fill gaps where knowledge or skills are lacking and because of this, team members are unable to meet (Direction, 2013). Colleagues are therefore less likely to take notice of issues and offer the necessary support their peers may have (Wang, Albert, & Sun, 2020). As a result, they find it challenging to establish how to behave towards, or react to, work developments. Hence, this leads to the feeling of isolation accompanied by reduced confidence in their abilities; which ultimately may cause low motivation and job dissatisfaction (Wang, Albert, & Sun, 2020).

Golden, Veiga, & Dino (2008) argue that professionally isolated employees are also less likely to receive important information or interpret information effectively and this may affect their performance of assignments. Golden, Veiga, and Dino (2008) further argue that psychologically and physically isolated employees are likely not to feel a sense of belongingness (the feeling of connection with work colleagues). This can lead to a lack of interest in employees, which leads to frustrations and the consequent lack of motivation, dissatisfaction, and the feeling of wanting to leave the company (Sabbagha, Ledimo, & Martins, 2018). A recent study by Susilo (2020) has also shown that most organizations laid off some of their employees due to lockdowns triggered by the outbreak of COVID-19. This caused workers anxiety about their job security, negatively affecting their motivation and job satisfaction and possibly resulting in low productivity.

Another important factor that may contribute to the feeling of isolation is technology, which has become an essential work tool as WFH has forced employees to work by telecommunicating (Rysavy & Michalak, 2020). Due to the lockdown associated with the COVID-19 outbreak, employees (including those in tertiary institutions) were forced to work online but recently institutions have introduced rotation work, requiring employees to alternate between working in the office and WFH. However, employees with little or no technological knowledge may find it difficult to use the technology-based platforms (Parham & Rauf, 2020). Because of this, they are not able to complete their responsibilities within the required period (Jamal, Anwar, Khan, & Saleem, 2020). Hence, such employees may feel psychologically unfit, resulting in a lack of motivation and a feeling of dissatisfaction (Sarwat, 2012). In addition, Parham & Rauf (2020) reported that employees with little technological knowledge are unable to provide good service to their clients and therefore, compromise productivity and morale.

The proposed study seeks to explore the role, if any, of COVID-19-induced isolations on the motivation and job satisfaction of non-academic employees of institutions of higher learning in South Africa. The role of isolation in job satisfaction has also been examined in some studies in an institutional setting. For example, (Bauer & Brazer, 2013) have shown that isolation has mediating effects on the relationship between social support and job satisfaction of school principals. However, a limited number of studies have been conducted on this topic focusing on non-academic staff in higher education in South Africa. Badaru, Adu, Adu, & Duku (2022) in their study, confirmed that literature is still scarce in the context of South Africa. In his research, Matli, (2020) also ascertained that It was too early to pull from the literature evidence for studies that have examined how the Covid-19 pandemic has transformed the work environment by gathering insights from workers who immediately became remote workers from home. This study adds to the growing body of knowledge regarding the theory of remote work during the Covid-19 pandemic.

1.4. Research Questions

The study seeks to answer the following questions:

1.4.1. Is there a relationship between working from home and employee motivation?

1.4.2. Is there a relationship between working from home and job satisfaction?

1.4.3. Is there a relationship between employee motivation and job satisfaction?

1.4.4. How do technological skills affect the relationship between employee motivation and job satisfaction when working from home?

1.5 Research Objectives

The aim (broad objective) of this study is to establish the effect of WFH on employee motivation and job satisfaction due to the COVID-19 pandemic among the non-academic staff of a public institution in Gauteng, South Africa.

Specifically, the study's objectives are:

1.5.1 Establish if a relationship exists between working from home and employee motivation.

1.5.2 Ascertain whether there is a relationship between working from home and job satisfaction.

1.5.3 Determine whether there is a relationship between employee motivation and job satisfaction.

1.5.4 Determine whether technological skills have an impact on employee motivation and job satisfaction when working from home.

1.6 Significance of the Study

The results of this study will create awareness of the level of motivation and job satisfaction of employees in higher learning institutions when they are WFH. Secondly, the study will assist management in developing strategies to motivate employees whilst WFH. Thirdly, from the developed strategies, HR can draft policies that may assist in implementing the strategies and ensure that these strategies are implemented to help with the transition of WFH, which will then motivate employees. Lastly, the strategies and policies developed can assist in motivation and job satisfaction allowing them to navigate through the challenges brought by the changing work environment. For example, continuous training on technological skills for

employees with challenges can increase motivation. The study will be helpful for the exploration of new ideas and provide an understanding of how motivation and job satisfaction can be strengthened when WFH. For instance, an institution can devise strategies to make WFH better without the employees feeling neglected when WFH. This can help the non-academic staff and academics to be psychologically prepared for the new work trend. From the study, the institution may give more benefits, such as data bundles in case of power blackouts to employees who are more productive when WFH, whether female or male workers, young or old.

1.7 Research context

This research is a study of non-academic staff at a public university in Johannesburg, South Africa. The university is internationally renowned for its academic excellence. The university has 33 schools, and this research study is intended to cover the entire institution. Therefore, all the non-academic employees had an equal chance to participate in the study. The study had a sample size of 354 employees and using the Raosoft sample size calculator, the sample size was determined. This institution has a higher population of students who may need consultation or assistance, particularly during this period of the pandemic; therefore, they need motivated employees who are willing to assist and give feedback without having to wait for a longer period. These employees form the backbone of the institution. They make operations easier for academic staff and students by ensuring that administration tasks such as finance, human resources, and safety are met, besides ensuring that the institution's mission and vision are fulfilled. Without the administration staff effectively performing their roles, the institution would not be able to function effectively. This study, therefore, examined whether WFH affects employees in terms of professional isolation and the work environment. Lastly how technological skills play a role in motivation (intrinsic and extrinsic) and job satisfaction when WFH.

1.8 Contribution of the Study

1.8.1 Theoretical Contribution

With WFH being the new norm, there have not been many studies yet. This literature will assist in building on existing literature about motivation and job satisfaction when employees are WFH. This new literature about WFH in academia will advise on how to manage professional isolation and further contribute to the literature on challenges of WFH such as professional isolation and lack of technological skills.

Employees behave differently apart from being motivated and satisfied, which may be personal or professional depending on age and gender differences. Women are more affected because of extra roles they have and this may interfere with motivation and job satisfaction (Abilash & Siju, 2021). The institution needs to find ways of motivating its employees. The research, stresses that motivation and job satisfaction as these are very important factors when WFH specifically during the COVID-19 pandemic. Consequently, this literature will help the university management, to identify factors that may facilitate or hinder WFH by improving and increasing the number of staff training sessions to improve employee performance. With the new literature, the institution will be able to understand the reasons for their employees' particular behaviour and how Maslow and Herzberg's theories can be applied to assist employees to improve their motivation and satisfaction when WFH. Evidence supporting the theories relating to employee motivation and performance showed that motivation has a positive and significant influence on employees' performance. With the help of this study, universities will be able to develop motivational strategies that provide them with a competitive edge and ensure their institutions' success.

1.8.2 Contextual Contribution

The study will occur in South Africa, specifically in a public tertiary institution. Motivation and job satisfaction are fundamental factors, hence this research will assist the institution to identify challenges that may lead to employees not feeling motivated or satisfied with their job when WFH. These institutions also provide an adequate setting for productivity, therefore this research will help the management tackle various problems and dysfunctional feelings among non-academic staff when WFH (Ahmad & Abdurahman, 2015). Hence, this will

determine changes in attitudes towards the job, particularly where age and gender are involved.

1.8.3 Practical Contribution

WFH has become part of the new normal and studies have confirmed there is a link between motivation, job satisfaction, and WFH. As a result, employees' work-life balance can be improved by using shifts, and management support is essential for keeping workers motivated (Ahmadi, Zandi, Cetrez, & Akhavan, 2022). The research study will help institutions create strategies and policies that assist workers to be motivated and satisfied. The study will also help institutions determine how the challenges of changing the work environment can be dealt with so that the productivity and objectives of the organization are not interfered with during the COVID-19 pandemic (Waizenegger et al., 2020).

WFH has also brought restrictions on the movement of employees and social interactions which individuals are struggling to adapt. According to Cooper & Kurland (2002), WFH's biggest threat is professional isolation as all communication is done through technology. It creates a psychological and physical distance between employees, employers, and colleagues in general. The study therefore will assist the university in identifying sufficient infrastructures such as technological resources, technical training, and support for employees. Generally, this study will help organizations through HR systems to help employees adapt and cope with the new changes in work, from working within the organization to remote work environments.

CHAPTER 2

LITERATURE REVIEW

2.1 Theoretical framework

This chapter discusses the theoretical framework and literature review of the study. This section will review theory and evaluate the literature on working from home, motivation, and job satisfaction. The section also focuses on professional isolation and the fundamentals of technological skills when WFH. The study will explore how these factors may influence employees.

Due to the COVID-19 pandemic, organizations encouraged employees to work from home. However, they can now alternate between workplace and remote work. This research is supported by the theories of WFH, motivation, and job satisfaction (Nakrosiene, Buciuniene, & Gostautaite 2019; Wang, Albert, & Sun, 2020). Nakrosiene, Buciuniene, & Gostautaite (2019) argue that this new trend (WFH) may have a significant effect on the type of work done as well as on organizations, and it is not healthy for everyone. In the past, employees chose a different location of work environment from the actual workplace to have the opportunity to work on their own time. This was carried out and would be effective only for workers who were interested or able to engage in, WFH (Wang, Albert, & Sun, 2020).

A study by Felstead & Henseke (2017) shows that the rate of employees working remotely has increased over the last decade. Working remotely was made possible by digital technology. Digital technology is playing a key role in flexibility and connectivity between employers and employees (Donnelly & Johns, 2020). Because of this, workers can work wherever and at whatever time. On the contrary, Gibson et al., (2002) as cited in Beauregard, Basile, & Canonico (2019) found that employees who work from home are associated with defaulting, and turnover due to flexibility, because of this, they are more prone to make mistakes in their work. Monitoring of employees can also be difficult for organizations when WFH and this can lead to employees neglecting their work responsibilities hence lowering the organization's productivity (Rupietta & Beckmann, 2018). Furthermore, Robb & Shellebarger (2012) has also confirmed that through technology, employers are now capable of monitoring their employees by use of tracking software to check whether they are working. Again, due to unreliable connection of technology, WFH was not widely practiced until the COVID-19 pandemic, which required almost all employees to work from home (Kniffin et al., 2021).

In South Africa, a study by Conradie & Klerk (2019) confirms that allowing employees flexibility or WFH reduces work demands in terms of psychological and physiological costs, which helps them to achieve their work objectives. Employees who are WFH may also have difficulties concentrating because of various distractions such as noise, social media, and household chores, all of which may affect their work performance (Toniolo-barrios & Pitt, 2021). Technology has a major role as far as WFH is concerned, such as communicating with supervisors and co-workers and performing their required tasks. However, it is also argued that information sharing can harm the organization, depending on technology especially when the employees lack technological knowledge (Cooper & Lu, 2019).

2.2 Theories of Motivation and Satisfaction

Several theories of motivation significant for work settings have evolved. The two most popular theories of motivation and satisfaction Maslow's Hierarchy of Needs and Herzberg's two-factor model are useful for this study. These two theories have therefore been merged to support the researcher's study. In addition, the study will also find out how the Social exchange theory contributes to the motivation of employees.

2.2.1 Maslow's Hierarchy of Needs

Kaur (2013) reports that Maslow's hierarchy of needs is the commonly used theory of motivation and satisfaction. Maslow indicates that the best way of motivating individuals is to keep in mind that they are motivated by needs and "that satisfaction begins at the lowest level of hierarchy before moving to the next higher level" (Elnaga, 2013). The needs are arranged in a hierarchical order, with physiological needs at the base, followed by safety, belongingness/love, esteem, and self-actualization needs. Generally, Maslow stresses that one cannot achieve a self-actualization level of development unless the needs of levels 1 to 4 have been achieved (Conforti, 1972).

Physiological Needs

Maslow (1970) stresses that individuals require physiological needs for example food, shelter, and clothing to work comfortably. Basically, without these needs, human beings can not survive.

Safety needs

Maslow further emphasizes that employees need an environment that provides a sense of security and well-being for instance financial security and protection from accidents as these will increase effort and productivity, hence continued employment. This is very critical particularly when employees are working from home, ensuring safe working conditions and job security by employers could be ways of satisfying their safety needs (Ghatak & Singh, 2019). Herzberg (1959) also stresses that employees will be motivated when working in a safe environment. Therefore, the university management should ensure the safety needs of their employees even when they are working from home.

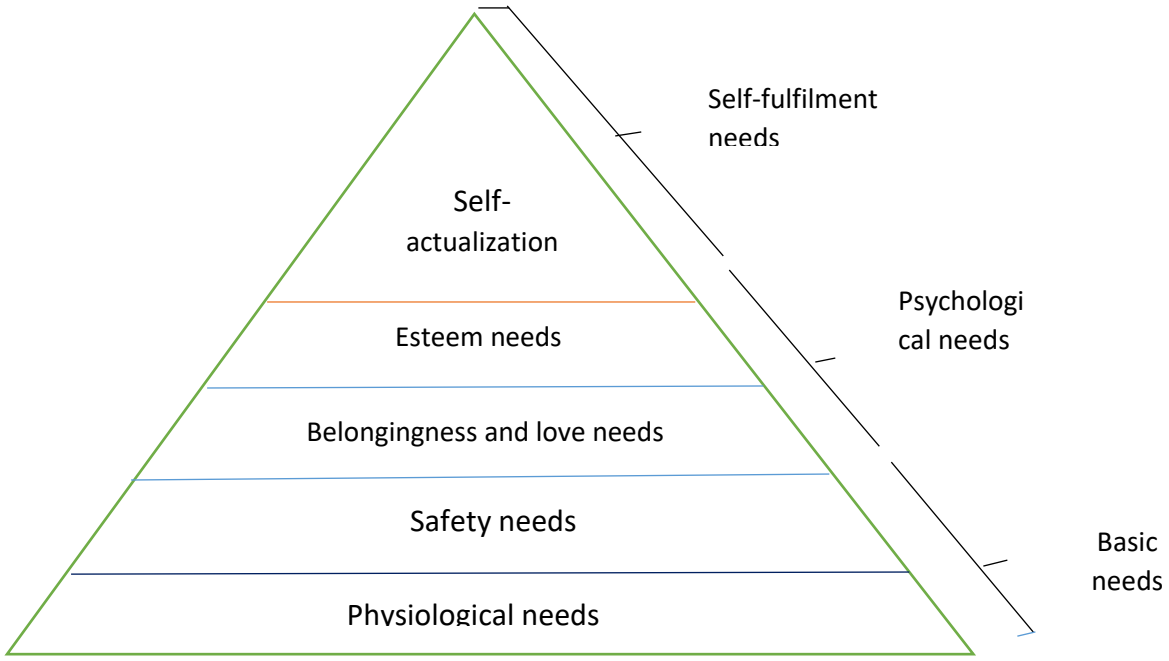
Social Needs (belongingness)

This type of need is a key determinant of an individual's behavior. An environment where an individual is getting social support from co-workers, supervisors, family, or friends lowers stress. In this case, an employee who is WFH needs a feeling of belonging to feel motivated and satisfied when there is support from the organization and colleagues (Waizenegger et al., 2020). Ghatak & Singh (2019) indicated that social needs are fundamental for employees, for instance interacting with colleagues enables employees to collaborate effectively to achieve the objectives of the organization.

According to Maslow's theories, when a person's life escalates his needs change, however, if he is unable to achieve those needs as he anticipates, then he becomes dissatisfied (Thiagaraj & Thangaswamy, 2017). These needs may be physiological, safety, security needs, and status among others. Vroom's (1964) expectancy theory argues that the extent to which an individual performs will depend on how much the expectation that the performance will yield a specific result if this is achieved, the employee becomes more satisfied and motivated. On the other hand, equity theory suggests that job satisfaction or dissatisfaction depends on how individuals are treated by the employer in work assignments of the same job and outcome.

Finally, self-actualization describes one's need to reach full potential. An employee who is WFH has an opportunity to make their own decision, be creative and able to express themselves, and have flexibility and autonomy in their work besides continuing to work to improve (Turabik & Baskan, 2015). Therefore the organizations' management needs to ensure that the hierarchy of needs is understood perfectly and how these needs affect their employees if they have an interest in motivating their employees for effective performance (Wolor, Solikhah, Susita, & Martono, 2020). Again motivating employees of the institution for higher learning will increase the efficiency of education and the quality of students.

Figure 1: Maslow's Hierarchy of Needs:



Source: Maslow Hierarchy of Needs adopted from (Yu, 2022)

2.2.2 Herzberg's Two-factor Theory

As explained by Herzberg (1959) motivation to work in an organization is influenced by two factors. Herzberg used the two-factor model to summarise the factors that affect employees' attitudes toward work. Firstly, motivation is associated with achievement recognition, interest in work, and responsibility. Secondly, Herzberg explains the hygiene factors, which if not acquired by an employee, will result in a feeling of dissatisfaction with working conditions, job security, and supervision including pay (Bassett-Jones & LIoyd, 2005). Motivation should also be aligned with goal setting, equity, expectancy, and reinforcement theory to be able to achieve organizational goals, and employee satisfaction (Bassett-Jones & LIoyd, 2005). In his theory, Rotter (1975) argues that the behavior that an individual chooses is determined by the situation and the choice, which also depends on what the person expects as a reward. He further narrates that when individuals have freedom, they develop a positive attitude towards their responsibilities compared to when they have low freedom (Rotter, 1975).

Herzberg uses this theory to explain that individuals can be satisfied, and dissatisfied at the same time. He argues that working conditions, interpersonal relations, and organizational policy among others are hygiene factors besides motivators (Gawel, 1996). Furthermore, a lack of hygiene factors can lead to job dissatisfaction. According to this theory, employee achievement, recognition, and interesting work are connected to job satisfaction. Herzberg named the two sets of factors, motivators (satisfying incidents) and hygiene (dissatisfying events) (Sachau, 2007).

According to Herzberg 1966, motivation increases the job satisfaction of an employee leading to efficiency and an increase in the effectiveness of an organization. However, hygiene factors do not promote satisfaction at work but prevent dissatisfaction while motivators increase satisfaction. Both motivational factors need to be balanced to achieve job satisfaction at work (Bassett-Jones & LIoyd, 2005). Therefore, organizations can use Herzberg's theory of motivation to ensure that their employees are motivated to avoid dissatisfaction, and at the same time increase job satisfaction.

Herzberg's two-way factor theory is suitable for this study as it confirms that individuals are motivated if they have an opportunity for growth and be able to achieve their objectives (Herzberg, 1966). Hygiene factors are associated with conditions that surround work such as

personal life, working conditions, poor ventilation, and organizational policies that can influence workers and cause satisfaction or no satisfaction. Job satisfaction and an attractive work environment are the intrinsic motivational factors that influence job performance (Ali, et al., 2021).

2.2.3 Social exchange theory

Homans (1961) defines social exchange theory as the "exchange of activity, tangible or intangible and more or less rewarding or costly between at least two people". Social behavior is a result of social interaction and how the behavior of one individual impacts the other. Homans states that when one is positively recognized for a behavior, the deed is likely to be repeated. Admittedly, Lawler (2001) explains that social exchange is a collaborative effort and when tasks are exchanged and achieved successfully, the parties involved will be emotionally uplifted. Therefore, applying social exchange theory for instance rewarding employees for good work, offering support to struggling employees (sharing knowledge), and regular checks on employees encourages motivation. Because of this, an organization maintains a healthy work environment and culture that promotes friendliness which helps employees connect even though they are working remotely (Tsai & Kang, 2019). This theory underpins the study because the more people around the world adopt social distancing practices, social engagement decrease and the lack of social interaction affects motivation (Swain, Saha, Abowd, & Choudhary, 2020). Hence Social cues such as body language, gestures, intonation, and pitch are lost in conversations that take place over the phone or online, which as a result negatively hinders social contact and has a negative impact on the mental and physical health of employees (Kniffin, et al., 2021). Flowing informal conversations and the social relationships they foster are central to organizational collaboration. Despite access to remote work and ICT, employees rate face-to-face interaction significantly higher in terms of frequency, quality, and importance (Allen, Golden, & Shockley, 2015).

2.2.4 Theories on technology use

Technology is one of the most important aspects of improving productivity in any organization. Because of this, countries have heavily invested in information technology. Many theories explain how and why individuals feel about new technologies. However, this

study will focus on the Technology acceptance modem, which is based on the Theory of Reasoned Action (TRA). The adoption theory predicts how new technologies have been adopted and used in organizations (Dube, Van Eck, & Zuva, 2020). This theory suggests that the use of technology depends on employees' attitudes (Elias, Smith, & Barney, 2012).

The theory addresses employees' perception of the usefulness and convenience of technology, and as a result, defines attitudes toward the use of that technology. According to Lucas (1981), Employees' attitudes toward technology are crucial because they influence how successfully technological systems are implemented within the company. There is a significant correlation between the user's attitudes and their degree of control over the use of an information system (Hamed, 2018). Furthermore, employees who have a negative attitude toward technology are likely to see technology in the workplace as a source of anxiety (Elias, Smith, & Barney, 2012). Accordingly, one would expect that an employee's age would be relevant to their attitude toward technology. As a result, the management should strive to ensure that employees' attitudes towards technology in the workplace are positive. Past studies have highlighted the importance of technology skills, Job satisfaction, and employee overall well-being as key antecedents to productivity in remote work arrangements (Kniffin, et al., 2021).

The above theories are all important because they all relate to this study. For example, social exchange theory explained how Lack of social interaction can affect the effectiveness in work-from-home situations. Maslow and Herzberg's theories explained how motivation and job satisfaction can affect the productivity of an organization if certain needs are not taken into consideration.

2.2.5 Summary

This section examined how theories are used to explain motivation and job satisfaction. Each theory uniquely illustrates its impact on motivation and job satisfaction. The theories of Maslow and Herzberg are the most used to explain motivation and satisfaction among employees and their causes of behaviour.

2.3 Working from Home

This section evaluated the literature on working from home, motivation, and job satisfaction. The section focused on professional isolation and the fundamentals of technological skills when WFH. The study will explore how these factors may influence employees.

Bailey & Kurland (2002) defines working from home as "working away from the conventional workplace, communicating by way of telecommunications or computer-based technology" (p. 394). Similarly, Bellmann & Hubler (2020) defines WFH as a "work arrangement in which employees execute their regular duties at different locations other than their ordinary workplace, supported by technological connections" (p.425). Based on the above definitions, it is clear that WFH is almost impossible without technology because it requires a combination of information and communication technology (Allen, Golden, & Shockley, 2015). There are various theories as to why employees may prefer to work from home According to Waizenegger, McKenna, Cai, & Bendz (2020), WFH enables employees to focus and this results in job satisfaction. However, Shareena & Shahid (2020) ascertains that the willingness of WFH depends on the environment and this requires quiet surroundings with a good internet connection.

WFH is assumed a better option for individuals who have other roles to play (Krasulja, Blagojevic, & Radojevic, 2015). However, Collins, Hislop, & Cartwright (2016) argue that Working remotely causes a rift between remote workers and office-based employees, which negatively affects how each individual's work assignments are perceived. Hence, it is important to take a break from work to reduce the feeling of pressure. Because of this, it is important to continue with work-life balance policies when WFH (Felstead & Henseke, 2017). According to Sullivan & Smithson (2007), WFH provides employees with flexibility for work and because they do not commute often, they have more time to spend on work, personal responsibility, or leisure. On the other hand, (Palumbo, 2020) argues that contamination between work and personal life stimulates undesirable repercussions on the ability of employees WFH to manage the work-life connection. Mellner, Kecklund, Kompier, Sariaslan, & Aronsson (2016), explains that the same employees are likely to be less motivated if there is no healthy work-life balance considering that employees are psychologically detached,

hence increasing the dangers of always being assigned to any available work. In the same way, Kniffin et al., (2021) maintain that the new trend is not suitable for everyone, especially those employees whose tasks are complicated and require uninterrupted time to complete those tasks. Working remotely (WFH) may be challenging, especially for employees who have never worked from home and those who are lonely, for instance, those who are childless, and who may experience a lack of belonging (Carnevale & Hatak, 2020). For such employees, WFH increases stress levels, which expectedly reduces motivation and dissatisfaction (Cooper & Kurland, 2002).

Susilo (2020), mentioned further challenges such as a heightened likelihood of miscommunication due to inadequate supervision and the difficulties faced by employees who may find difficulties maintaining boundaries between work and personal duties. Moreover, some critics argue that it is difficult to measure the productivity of employees' WFH since they are out of sight, (Timsal & Awais, 2016). Despite WFH, employees may also experience anxiety due to uncertainty about the future of their careers (Shoss, 2017). This is due to the degeneration of the economy related to the COVID-19 pandemic, which has led to layoffs, downsizing, and unemployment threatening the job security of employees in most organizations leading to pay cuts and reduced work hours (Restubog, Ocampo, & Wang, 2020).

Cooper & Lu (2019) in their study argue that due to changes in work behaviour, employees are forced to overwork or work longer hours than before for fear of losing their jobs. Therefore, the demand to adjust to working and family may be challenging and this may lead to family-work obstructions, emotional strain, stress, and burnout resulting in a lack of work motivation (Sonnentag, Kuttler, & Fritz, 2010). In support, Flesia, Fietta, Segatto, & Monaro (2020) finds that the most affected employees WFH during the COVID-19 pandemic were women. A study by McCartney & Evans (2005) confirms that WFH policies may not be suitable for the requirement and wants of the organization, they may affect customers' demands negatively when they are not motivated. As regards, it can be said that individuals have different perceptions of what they would consider a balance between work, and home life. According to Toniolo-Barrios & Pitt (2021), WFH can be stressful during the COVID-19 pandemic, especially with children around, limited space, a distraction from noise and

personal relationships are likely to affect concentration thus lowering motivation and increasing stress, which can result in mental instability.

This study will examine the following aspects of WFH; work-life balance, good work environment, professional isolation, and communication.

2.3.1 Work-life balance

One challenging aspect of WFH is to separate and balance work and personal time. Given that many employees were forced to work from home while caring for their family members and other obligations, the COVID-19 pandemic made it extremely difficult to achieve and maintain an adequate level of work and life balance (Parham & Rauf, 2020). Work-life balance is the equivalence of time that an individual consumes working compared to the time spent in the individual's own life (Wolor, Solikhah, Susita, & Martono, 2020)**.** It can also be defined as the process of creating a healthy environment that enables employees to harmonize their work and individual responsibility thus enhancing work performance (Delecta, 2011)**.** WFH is one of the best tools for work-life balance, especially for working mothers as it gives employees the flexibility they need for quality work and life as they can afford to take care of both private and professional matters (Dizaho, Salleh, & Abdullah, 2017).

Previous research has confirmed that One of the reasons why employees may prefer WFH is the flexible options they have (autonomy) which allows them to plan how to perform their work balancing work, and family matters (Dockery & Bawa, 2014). Contemporary workers want freedom and flexible work arrangements to enable them to manage the stresses of home and work issues (Conradie & Klerk, 2019). Delina & Raya (2013) echo this, pointing out that an imbalance can cause stress and reduce the quality of life leading to ineffectiveness at work.

A study by Watson & Lightfoot (2003) indicates that WFH can be advantageous to employees as it gives them a chance to have a positive work balance which may lead to motivation and high-performance levels. A good work balance nurtures employees; furthermore, motivated employees are less likely to take sick leave or leave the organization but will be prepared to work longer hours (Felstead & Henseke, 2017). Findings by Dizaho, Salleh, & Abdullah (2017)

have confirmed that work-life balance leads to flexible working and therefore has a low turnover rate and higher employee engagement and satisfaction.

2.3.2 Good work environment

A work environment is one of the most important factors that determine the level of satisfaction and motivation of employees (Agbozo et al., 2017). A research study by Awada, Lucas, Becerik-Gerber, & Roll (2021) states that transitioning from working in established office spaces to WFH can be difficult. If the employee likes the environment in which he or she works, then he or she will be comfortable. The work environment may be the physical, psychological, or social environment. According to Somerwill & Wehn (2022), how an environment is perceived tends to influence an individual's behaviour in that environment. According to the model, how people perceive their living and working environments tends to have a major impact on their attitudes, behavior, and physical and mental health.

A good work environment includes safety, a comfortable workplace supported by good ventilation, and a workspace, which allows employees to perform their responsibilities with a high level of satisfaction and this also indicates that employees are satisfied with their job. (Agbozo, Owusu, Hoedoafia, & Atakorah, 2017). According to Badrianto & Ekhsan (2020), a comfortable work environment provides employees with a sense of security and enables them to perform effectively because it affects their emotions. Employees who like their environment are more comfortable working there, hence when their performance is better, their job satisfaction also becomes better (Moors, Malley, & Stewart, 2014). This is because stressful work environments put high psychological demands on employees, leading to high levels of stress that can negatively impact mental health such as depression, especially in working women with young children who are unable to balance work and family (Shepherd-Banigan, Bell, Basu, Booth-LaForce, & Harris, 2016).

Results from Sarode & Shirsath (2014) show that a good work environment makes employees psychologically satisfied and leads to an increase in performance and productivity. Setiyani et al., (2019) state that a good work environment encourages the spirit of employee involvement to work harder to achieve company goals. It has also been confirmed that employees will perform their duties effectively and competently using the skills they have if

they are working in a supportive work environment (Leshabari, Muhondwa, Mwangu, & Mbembati, 2008). Hence, it is paramount for organizations to maintain a positive climate within their organization and that their employees are satisfied with their job as this will determine the success of the organization (Mafini & Dlodlo, 2014).

2.3.3 Professional isolation

Professional isolation is a state of mind or belief of being out of touch with others in the workplace (Golden, Veiga, & Dino, 2008). It indicates a lack of social connections and inadequate access to critical influence networks and social contacts. Professional isolation is characterized by its association with employee career development (Cooper & Kurland, 2002). Employees who feel isolated at work believe that resources, both tangible (like equipment) and intangible (like social support) are insufficient. (Golden, Veiga, & Dino, 2008). One of the challenges for those WFH, or working remotely, is its enhancement of the feeling of alienation, anxiety, and social, and professional isolation (Cooper & Kurland, 2002; Waizenegger, McKenna, Cai, & Bendz 2020). This situation occurred a lot during the COVID-19 pandemic period because of the lack of interaction among workers. Due to constrained interpersonal interactions, employees find it difficult to receive informal mentoring and performance feedback from co-workers and managers (Cooper & Kurland, 2002).

Employees who are WFH are also considered professionally isolated when they can no longer develop formally or informally from experiences such as workshops, mentoring, and training (Cooper & Kurland, 2002). Similarly, Wolor, Solikhah, Susita, & Martono (2020) argue that WFH reduces interpersonal contact, and increases a feeling of isolation and the probability of misunderstanding. In addition, Beauregard, Basile, & Canonico (2019) acknowledge that in many organizations, employees whom WFH are forgotten when it comes to promotion or assigning tasks, therefore limiting their career growth. Studies by Susilo (2020) also confirm that it becomes difficult for employees to display their work ethics and gain recognition from the management when all communication is electronic. Research by Craig and Kuykendall (2019) suggest that to lower the feelings of professional isolation, social support from friends, co-workers, and supervisor can contribute to employee well-being by boosting self-esteem, in addition, to support from other areas.

2.3.4 Communication

Communication between employees, their workmates, and between management and employees is very important for teamwork when WFH as it enhances collaboration and work effectiveness (Bailey & Kurland, 2002). Organizations need to invest in technology to communicate effectively when employees are working remotely because they don't have access to break rooms or other public areas where they can observe personal cues (Rysavy & Michalak, 2020). Additionally, employees working remotely must develop themselves technologically to be able to communicate with colleagues, supervisors, and other experts in the same field (Rysavy & Michalak, 2020). Lack of communication and social isolation are major disadvantages of WFH (Nakrosiene et al., 2019). Establishing an effective means of communication is one of the ways of facilitating remote workplace arrangements.

Diamantidis &Chatzoglou (2019) state that there is a connection between job communication, commitment, and motivation. Communication is critical for maintaining a continuous connection between employees and encourages teamwork and socialization. According to Jungert, Broeck, Schreurs, & Osterman (2018) working with colleagues, peers, or in teams widens the extent of supporting behavior through socializing. Besides, through communication, team members help each other and support each other's needs for autonomy, and competence and therefore feel motivated and less controlled (Waizenegger et al., 2020).

Although virtual teamwork is growing, Martins, Gilson, & Maynard (2004) argue that virtual teamwork lacks the communication affluence that is obtained from face-to-face teams. Furthermore, Bailey & Kurland (2002) states that face-to-face is important for the interaction between colleagues and supervisors as this help in developing informal communication networks. Therefore, a lack of this can cause employees to feel less incorporated in the team, decreasing organizational commitment and leading to demotivation and dissatisfaction with work (Bailey & Kurland, 2002). As a result, workers tend to shy away from asking for assistance because of physical distance. That is why communication is crucial as it helps to develop understanding and allows the need for motivation and job satisfaction (Reeve, Jang, Carrell, Jeon, & Barch, 2004).

Chanana & Sangeeta (2020) describes communication as an important factor especially when WFH because it is through communication and sharing of information that employees get to learn and adjust to new technologies, besides work-related uncertainty, and stress. Hence, through increased and frequent communication, employees become less stressed and more motivated (Agarwal, 2021). Furthermore, leaders should communicate to their employees clarifying tasks that need more attention, in addition to the fact that it is important to organize one-on-one meetings with employees to discuss challenges that they may be facing (Toniolo-Barrios & Pitt, 2021). It is therefore important for employers to be mindful of their employees when WFH regarding satisfaction, otherwise decrease in performance and a rise in employee attrition may occur.

2.4 Motivation

Motivation is important in directing and encouraging employees to perform successfully so that the organizational objective is achieved. A study by Bawa (2017) argues that motivation is an important factor in organizational growth and the country's economic recovery. According to Ryan and Deci (2000), motivation is the "inherent tendency to seek out novelty and challenges to extend and exercise one's capacity, to explore and to learn" (p. 70). On the other hand, Schunk & DiBenedetto (2020) define motivation as the process where an individual's requirement will inspire him or her to implement various activities or influence certain behaviour to achieve a certain goal. However, Luthans (1998) contends that motivation is invisible; however, since human behaviour is the only thing visible, it should not be assumed as the only cause of the behaviour.

Motivation is essential because if employees are motivated, they will look for ways to improve service and customer satisfaction, additionally, organizations benefit from highly motivated employees who work towards their goals (Mahmoud, Fuxman, Mohr, & Reisel, 2021).

Motivation theories were primarily used by psychologists in the 20th century to explain human behaviour (Prabakaran, Ispriya, Amsa, & Angulakshmi, 2014). Motivation has an impact on individuals in terms of the acquisition of skills and the degree to which they utilize their capacity (Locke & Latham, 2004). Lin (2007) identifies two classifications of motivation, extrinsic and intrinsic. Various factors affect job satisfaction, and these can be intrinsic or extrinsic. Employees' own internal needs and expectations are examples of intrinsic factors,

on the other hand, extrinsic factors are factors such as work environment, work policy, and interaction with fellow workmates among others (Suharnira, Suharto, & Guswandi, 2018).

Sapta, Muafi, & Setini (2021) finds that the culture of motivation and job satisfaction in an organization plays a fundamental role in employee performance. Studies by Werner, Schuler, & Jackson, (2012) confirm that motivation theories help managers understand the root causes of employee behaviour and maintain or eliminate certain behaviours that may harm the organization. One way to achieve motivation is for employers to understand what motivates their employees and how to keep them satisfied. Hence, with motivation, the management can explain what type of employees they have in the organization through their behaviour.

Employee motivation is thus a worker's willingness to exert effort to work towards the achievement of the organizational goal, depending on the ability to meet the individual needs of the employees (Robbins & Coulter, 1996). Employee motivation is known to be a problem for the management and supervisors since employees who have low levels of motivation are likely to put little or no effort into their jobs and this accounts for the organization's revenue leading to more expenses (Ganta, 2014). In their, studies Hackman and Oldham's (1976) developed a model that suggests that jobs can be more motivated by increasing the variety of skills appropriate for the job, the extent to which the job is productive, and the extent to which the job is productive, autonomy and employee's feedback on performance. Motivated employees are considered satisfied with their work, furthermore, social relationships at work are also known to be an important source of job satisfaction (Shamir & Salomon, 1985). The authors confirm that different assignments or techniques laid out for the job that employees accomplish affect employees' behaviours at the workplace.

According to Adeleye, Lawal, & Olatunde, (2015), work is unavoidable and since it has to be done in whatever way, it is up to the managers or the employers to help motivate employees to develop the desire for satisfaction in their work. Work becomes a powerful factor in determining the behaviour of workers (Sultan, 2012). He further says that the change of culture from office to home may increase tension levels considering that many employees do not respond well to change unless it is beneficial to them. The growth of any organization depends on its assets, the capabilities of the management, and employees who require a motivating work environment to be able to work and achieve the organizational objectives

(Elnaga, 2013). Hence, disease outbreaks not only disorganize basic life activities and hinders the growth of the economy but also have long-term effects on individuals (Agarwal, 2021).

The most commonly used elements of employee motivation are;

2.4.1 Extrinsic motivation

Extrinsic motivation is associated with instrumental values, and expectations such as money, and fame (Reiss, 2012). An extrinsically motivated individual focuses on goal-driven reasons expecting a specific result for that particular behaviour, for instance, benefits, rewards, or an increase in wages and salary (Ryan & Deci, 2000). Because of this, there is evidence showing that extrinsic motivation plays an important role in making employees more productive (Ryan & Deci, 2000). Most senior employees value praise and recognition because, through these, their self-esteem is increased which develops a favourable connection between the individual and his or her work (Locke & Latham, 2004). Sharing knowledge online when telecommuting with co-workers can be an effective motivator as employees believe in mutual benefits from other colleagues and thus a long-term relationship is maintained (Lin, 2007). Therefore reciprocal benefits act as extrinsic motivation.

Moreover, extrinsic motivation comes from sources outside the individual while intrinsic factors originate from a source or sources within the individual (Tovmasyan & Minasyan, 2020). When WFH, employees require social interactions and encouragement from their colleagues or teamwork as this will help them in motivation and productivity (Ariani, 2017). Research by Whitefield, Dresser, Magoffin, & Wilby (2021) also indicated that work-life balance plays an important role in extrinsic motivation when WFH, this is because it allows employees to schedule their time to work, attend to personal commitments and time for leisure thereby improving their productivity. Given that work is a way for extrinsically motivated employees to earn money, they will at least partially fulfill their duties. (Elias, Smith, & Barney, 2012).

2.4.2 Intrinsic motivation

Intrinsic motivation is the willingness to complete a task because it interests and excites the individual (Ryan & Deci, 2000). Intrinsically motivated behaviours are natural and foster creativity and flexibility. More importantly, employees with intrinsic motivation are self-driven, more satisfied with their job, and perform their duties effectively (Ryan & Deci, 2000). Furthermore, intrinsically motivated individuals nurture rapport and personal growth and contribute to organizational growth, not to mention the quality of work-life with a deeper and long-term effect because their motivation comes from within (Armstrong, 2006). On the other hand, extrinsic behaviours are a result of pressure leading to uncertainty and a lack of confidence (Lin, 2007). According to Rupietta & Beckmann (2018), WFH promotes intrinsic motivation because employees have more autonomy, and again intrinsic motivation has a positive effect on employees' willingness to perform without being affected by their work environment. Each of the theories above helps to make meaningful sense of the research on motivation, but WFH is more moderated by intrinsic motivation, and therefore, the two complement each other.

2.5 Job Satisfaction

An employee's satisfaction is influenced by a variety of elements, including experiences, values, and needs, which are determined not only by the employee but also by the employer and the external environment. (Sabbagha, Ledimo, & Martins, 2018). Job satisfaction is one of the most important factors influencing human resource production. This is also used widely used measure of workplace attitudes. Job satisfaction is a positive feeling about one's work and is achieved through one's motivation and performance (Andrade & Westover, 2020). Similarly, Locke 1976 as cited in (Demirkol & Nalla, 2018) defined job satisfaction as "a pleasant or positive emotional state resulting from the evaluation of one's job or work experience" (p.1904). However, for Schultz & Schultz (1998), job satisfaction entails both the positive and negative feelings and attitudes that individuals possess towards their jobs, which may be job-related or personal attributes such as age, gender, and social relationships. On the other hand, Adeleye, Lawal, & Olatunde (2015) indicated that job satisfaction affects the employee's capacity to work, they described job satisfaction as the frame of mind gained from

positive or negative feelings about the work. Gupta & Joshi (2008) argues that job satisfaction is vital as individuals spend part of their entire lives at work. Therefore, an individual's attitude towards work can be used to determine job satisfaction. Hence, they have to be mentally and physically fit to perform their duties effectively.

According to Elnaga (2013), job satisfaction is gained when the minimum urge limit has been achieved and no separation is found between one's desire and reality. Sarker, Sultana, & Prodhan (2017) confirms that dissatisfied employees may not stop performing their tasks, however, their dissatisfaction could affect them and their co-workers as well. For this reason, the quality of service delivered is affected. Thus, a positive atmosphere of motivation is important to job satisfaction for employees and also for the effective functioning of work in organizations because they are a resource to the organization.

A satisfied employee will be identified through his or her hard work, confidence, remaining loyal to the organization as well as an employee who doesn't have the intention of leaving the organization after working briefly (Robbins & Coulter, 1996). In their studies, Waizenegger et., al (2020) established that employees with positive attitudes toward their jobs have high levels of job satisfaction, moreover, those with negative attitudes will experience dissatisfaction, and lack of loyalty, followed by increased absenteeism (Aziri, 2011). Therefore, the satisfaction or dissatisfaction of an individual towards work can be said to be unique and will depend on the perceptions of similarities or differences between his needs, and the outcome (Andrade & Westover, 2020).

According to various researchers, job satisfaction is determined by different factors. Spector (1997) explained that job satisfaction is influenced by factors such as colleagues, supervisors, and fringe benefits, while Aziri (2011) concurs with Vroom who states that job satisfaction is influenced by factors such as leadership, type of work, working conditions, teams, and management. Mutual relationships with co-workers and teamwork in the workplace have a major impact on employee job satisfaction as the support employees receive will lead to job satisfaction and this also affects organizational commitment (Peters, Lau, & Ng, 2014). The researchers further state that when employees are stressed with no sufficient emotional support, they detach themselves from their duties and become less committed.

Working conditions as a factor of job satisfaction also affect employees' performance, this is an advantage to both employee and the employer. According to Raziq & Maulabakhsh (2015), employees will feel secure if they are provided with good working conditions and the employability of that organization is motivated. Studies by Bakotic & Babic (2013) confirmed that difficult working conditions could be due to poor lighting, noise, and interference. Again, the equipment or tools that workers use to perform their daily duties can also affect job satisfaction (McMurtrey, Grover, Teng, & Lightner, 2002). Additionally, hours of work and support from administration and co-workers are also critical in making job performance easier.

When employees are communicated to and trained, they can share information about themselves, listen to each other, and learn each other's differences and because of this, they become satisfied and motivated to perform (Diamantidis & Chatzoglou, 2019). Furthermore, they become less motivated to go for further training, getting new skills and career development due to the decline of their intelligence. Maurer, Weiss, & Barbeite (2003) also reported that older workers are less motivated to seek such opportunities to develop their careers due to a lack of support from supervisors and co-workers. This generation of employees is good at maintaining social interactions and has a positive attitude about working with others, autonomy, and self-acceptance (Ryan & Deci, 2000). On the contrary, the satisfaction of younger workers increases when they are given more opportunities to develop their careers, unlike older workers whose higher satisfaction levels are linked to their well-being and mental health (Riza, Ganzach, & Liu, 2018). Furthermore, they seem to be more motivated by extrinsic motivation than the older workers and are more likely to leave for another organization if better extrinsic motivators pay is provided (Yusoff & Kian, 2013).

According to Thiagaraj & Thangaswamy (2017), job satisfaction is an important factor for employee performance and therefore needs to be addressed for better results in any organization. Moreover, Solanki (2013) explained that job satisfaction and motivation are crucial in an individual's professional life besides having an impact on performance in the workplace. Previous research found that pay, anxiety, work environment, and interaction with co-workers among others are key to job satisfaction (Chandrasekar, 2011). In addition, Locke 1976 as cited by Dalkrani & Dimitriadis (2018) suggested that job satisfaction among

workers can be obtained by allowing people the sufficient obligation to develop psychologically by taking on more responsibilities, this consequently increases earnings.

Varma (2017) posits that acquiring new information, and new development opportunities motivate and boost individuals' satisfaction. Furthermore, studies by Thiagaraj & Thangaswamy (2017) reveal that encouraging, and supporting employees to commit to work management plays a significant role in motivating, empowering them, and improving performance. However, some employees tend to get satisfaction because of their goal achievement (Diamantidis & Chatzoglou, 2019). On the other hand, Khuong & Vu (2014) argues that job satisfaction also depends on the beliefs and feelings of employees' job experiences in terms of their tasks, coworkers, and supervisors. However, Mehrad (2020) posits that job satisfaction can be used to determine the employees' intention to stay or leave the organization because of its capability to make them feel their physical and mental well-being.

Khalifa & Truong (2010) ascertains that one of the key factors required for continued growth, positive outcomes, and success in universities is job satisfaction. Hence, there is a positive significance between university results and job satisfaction. Furthermore, studies by Gebremichael & Prasada Rao (2013) confirm that a university's well-being is based on the presence of job satisfaction and it is through job satisfaction that educational organizations identify difficulties that their employees undergo and what policies and strategies can be implemented. The researchers pointed out that a lack of job satisfaction in universities can lead to undesirable behavior such as turnover, slowness, and absenteeism among staff. Because of this, the management can identify such behaviors and direct them in the right direction.

Many research studies suggest that demographic factors have an influence on motivation and job satisfaction, for example, age and job satisfaction (e.g., Olorunsola, 2010; Bas and Ardic,2002), gender, and satisfaction (Moors, Malley, & Stewart, 2014).

2.6 Technological skills

One of the prerequisites for employees to successfully work from home and maintain an organization's productivity is technological skills (Al-Shathry, 2012). Both technology and human resources must be developed continuously to enable the company to remain competitive. Technological skill is the expertise and ability of an individual or employee to manage technology in performing their job effectively (Moorman & Slotegraaf, 1999). Technological skill is identified as an important factor in influencing employee productivity when engaged in WFH (Aboelmage & Subbaugh, 2012). During the lockdown, many organizations had to quickly train their employees to use technology while WFH, and this also became a huge task.

However, Information and Communications technology (ICT) has encroached on the boundaries of work and life through massive workloads sent by employers which require immediate response, (Cooper & Lu, 2019). Through technology, WFH has a lot of distractions resulting from endless interruptions from phone calls, emails, and texts, which makes employees have longer working hours (Farrell, 2020). In some cases, complicated technical problems may occur, forcing the employee to discontinue working hence dissatisfaction and demotivation (Greer & Payne, 2014). Therefore to avoid these problems, the employer needs to ensure that the social exchange of workers is maintained through free access to technology as this is essential for employee psychological well-being (Greer & Payne, 2014).

Developing the desired knowledge, skills, and abilities requires an effective training program to enable employees to work from home as the process is managed online (Elnaga & Imran, 2013). The stronger a person's technological orientation, the more open they are to the use of digital technologies, and because of this, a digitally oriented employee commits to taking digital initiatives for their daily work responsibilities and this improves employee productivity while WFH (Khin & Ho, 2018). However, Aboelmage & Subbaugh (2012) indicates that if employees lack technological skills, their institution will be unable to achieve their goals and there may even incur more unexpected costs.

According to Elias, Smith, & Barney (2012), WFH requires workers to have the skills and confidence to use technology, which also depends on age. For instance, studies show that older people sometimes lack these technological skills, they report lower use of technology, greater fear of starting the use of those technologies, and lower intentions to use the technology and are more likely to have negative attitudes towards technology compared to younger workers (Elias et al., 2012). However, Thompson & Mayhorn (2012) argues that the lack of technological skills may be due to a lack of experience with these technologies rather than age. Thus dismissals are often made based on knowledge, skills, and values for organizations, this means that if older employees are perceived as more knowledgeable and competent than younger workers to combine work, their employment may be terminated (Dropkin, Moline, Kim, & Gold, 2016).

With technological skills, employees can afford ways to organize their work life differently than before to work more flexibly when WFH (Green, 2016). Furthermore, the skills enable individuals to use and evaluate information more effectively, build networks, and maintain good relationships with colleagues and employers, all while pursuing careers (Green, 2016). Consequently, a lack of relevant skills and low confidence have both been identified as underlying factors of digital exclusion (Elnaga & Imran, 2013). With technological skills, Leaders or supervisors are also able to cope effectively with technology to demonstrate their interpersonal skills. This will enable them to develop effective tools, give relevant communication, provide positive feedback to employees, and recognize their performance (Contreras, Baykal, & Abid, 2020).

Several factors influence employee attitudes toward technology. One of the major factors is the age group to which the employee belongs (Elias, Smith, & Barney, 2012). Technology adoption by younger employees has been influenced by attitudes toward technology, while older employees have been influenced by social pressure to use technology and the ease of its implementation (Elias, Smith, & Barney, 2012). The study found that older employees are likely to be inexperienced with new technologies while younger employees are considered more experienced and ready for new technologies (Farrell, 2020). Employees' attitude towards technology is also an important factor in determining the successful implementation of technical systems, in other words, if the employee has a negative attitude towards technology, he or she will always be distressed at the workplace (Rysavy & Michalak, 2020).

2.7 Hypotheses and conceptual framework

2.7.1 Working from Home and employee motivation.

The relationship between WFH and employee motivation can not be overemphasized especially during this period of the COVID-19 pandemic. A study by Setiyani et al., (2019) found that there is a relationship between WFH and employee motivation because employees will be motivated, and productive if where they are working (WFH or remotely) is conducive and comfortable. Sultana, Nor'ain Abdullah, Hossain, Sherief & Andalib (2021) found a relationship between WFH and motivation because when employees work from home, they are more efficient, have fewer politics, are more motivated, have less absenteeism, and have lower turnover. There is also a positive relationship between WFH and employee motivation because when employees work from home, they have the opportunity to take care of personal matters during working hours, which makes their private life more fulfilling (Susilo, 2020).

Another study by Bailey & Kurland (2002) found that employees who work from home are isolated that they miss important information and may also be poorly evaluated. Research by Golden et al. (2008) found a negative relationship between WFH and motivation because employees who work from home are exposed to high levels of professional and social isolation due to the restricted environment and since the two are linked to employee development, their absence can also lead to decreased motivation. Dockery & Bawa (2014) found an inverse relationship between WFH and employee motivation, because when employees are WFH, the work-life balance is obstructed when employees overwork, and employees' social networking and personal life are affected. Another study found that work-life becomes a challenge because employees have to share work and family responsibilities. This is also confirmed by Song & Gao (2020) who found that because of unfinished work when WFH, employees may be forced to work after working hours or on weekends, hence confirming a significant relationship between WFH and employee motivation.

The literature, therefore, suggests that the relationship between WFH and motivation may be negative or positive. Accordingly, the second hypothesis to be tested by this study is also non-directional:

H_1: There is a significant relationship between working from home and employee motivation.

2.7.2 Working from Home and job satisfaction.

A good physical work environment reinforces employees' positive behavior and improves their job satisfaction. WFH has been found to have a relationship with job satisfaction. In their study, Waizenegger et al., (2020) documented that employees WFH are free from distractions brought by colleagues, which can potentially improve their concentration, leading to high work performance and ultimately, job satisfaction. Nakrosiene et al., (2019) also found that employees who work from home are likely to develop trust and satisfaction if they are trusted and supported by their supervisors, co-workers, or even family members. For this reason, they become satisfied with their work and deliver on time as agreed when WFH. The research study by Raziq & Maulabakhsh (2015) also found a significant relationship between WFH and job satisfaction because an individual will be more productive and gain satisfaction from WFH if there is a conducive work environment.

Numerous studies have documented the negative impacts of WFH. For instance, Bailey & Kurland (2002) found that employees' lack of physical contact and social interaction leads to a lack of motivation hence lowering job satisfaction. A study by Sultan (2012) found that given that other family members may also be at home due to COVID-19, it may be difficult for parents WFH especially female employees who have to juggle between work and family such as taking care of children, causing work and family interference, which may lower their job satisfaction. This negative relationship is confirmed by Bernarto, Sudibjo, Suryawan, Purwanto, & Asbari (2020) who found that family conflicts and health issues may arise because workers are forced to work extra hours brought by the accumulation of work which can result in a lack of job satisfaction. This, therefore, confirms that;

H_2: There is a significant relationship between working from home and job satisfaction.

2.7.3 Employee Motivation and Job Satisfaction

Employees need to be motivated to achieve job satisfaction for the organization to achieve its goals, which will also determine performance and productivity. Sapta, Muafi, & Setini

(2021) confirm this when they found that there is a positive relationship between motivation and job satisfaction because when workers are motivated and committed to the organization, this is likely to provide a high level of job satisfaction. A study by Robbins, Odendaal, & Roodt (2003) discovered that the achievement of the organization's goals would be affected if the employees did not enjoy their work. Hence, an indication of a significant relationship between motivation and job satisfaction.

Furham, Eracleous, & Chamorro-Premusiz (2009) also confirmed significant relationships between motivating factors and job satisfaction, showing that the extent to which a person is satisfied with their job is directly related to the presence of some motivating factors such as recognition, benefits, and flexible work schedules among others. According to the researchers, if workers are sufficiently satisfied with their jobs, they become motivated and encouraged. Sultan (2012) also found that the motivation and satisfaction of the employee will be determined by their behaviour, for instance, a positive work environment allows employees to thrive by increasing their motivation and job satisfaction. The researcher also confirmed that happy employees tend to contribute positively to creating a better work culture if they are satisfied. Thus, there is a positive correlation between motivation and job satisfaction because job satisfaction can increase when motivation is well-perceived by employees.

The goal of current theories of motivation and job satisfaction is to provide organizations with a framework to influence their employees to motivate and increase their willingness to work and thereby achieving high organizational productivity (Ncube & Samuel, 2014). Ayub & Rafif (2011) found that motivation and job satisfaction are inseparable, but they complement each other and correspond to different organizational variables such as productivity and working conditions. The researcher found that the two rely on people's insight and behaviours in the workplace, which is driven by their perception of intrinsic and extrinsic needs and work-related and organizational attitudes. In contrast, a negative relationship between motivation and job satisfaction was also found. A study by Bui, Liu, & Footner (2016) found that workers with a higher perception of work-life imbalance tend to lack motivation and dissatisfaction because of the feeling that their organizations do not have feelings for their well-being. Putra (2019) confirms this when he found that employees find working conditions uncomfortable, for instance when they have too heavy a workload, which reduces their motivation to finish their duties on time, leading to lower job satisfaction.

Based on the above literature, the third hypothesis is, therefore;

H_3 There is a significant relationship between employee motivation and job satisfaction.

2.7.4 The Role of technological skills on employee motivation and job satisfaction when WFH

WFH is impossible without technology. Because of this, communication in organizations has been advanced through Information and Communication Technology (ICT). In their study, Timsal & Awais (2016) found that technology has transformed the nature of work making it more flexible for employees who have technological skills to work from home or anywhere, any time through teleworking. Ali & Anwar (2021) found that employees with high technological skills have a positive effect not only on future jobs and wages but also on the overall productivity of the economy, this leads to motivation and satisfaction. Song & Gao (2020) found an association between technological skills, motivation, and job satisfaction as technologically savvy employees can assist in facilitating work-related information such as communication and management thereby allowing employees to achieve high performance and productivity. However, Parham & Rauf (2020) found that when employees are not technologically skilled, they might have problems in communication with co-workers and management because they are unable to use online platforms such as Microsoft Teams and Zoom, and as a result, they become demotivated and less satisfied. Prasad, Mangipudi, Vaidya, & Muralidhar (2020) found that employees who lack technological skills might become vulnerable to retrenchment by the employer for failing to maintain productivity. Hence, this indicates that technological skills, motivation, and job satisfaction are correlated.

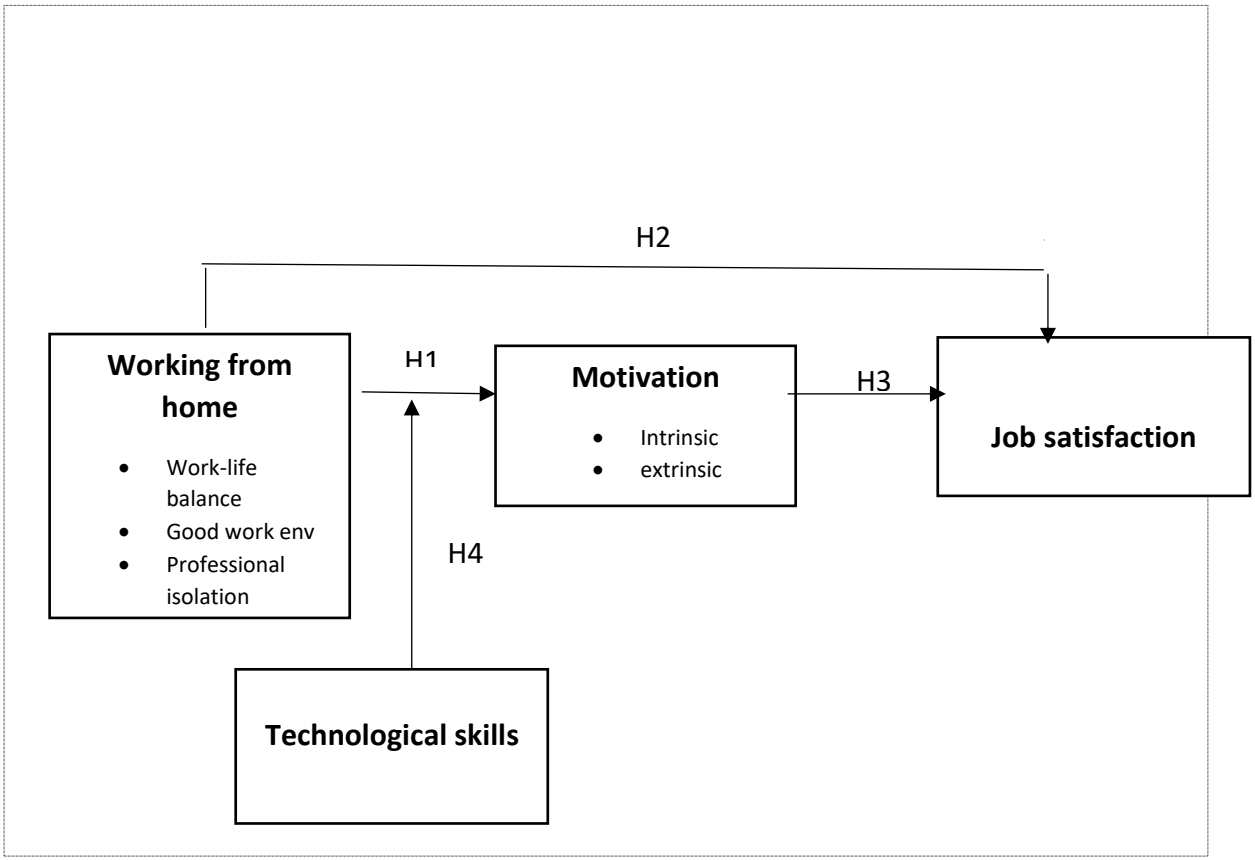
In their research study Farooq & Sultana (2021) found that when employees lack motivation and satisfaction, productivity can be affected if they are not proficient with online tools while WFH. Wang et al., (2020) also confirm that there is a negative connection between technological skills and WFH because a lack of these skills may lead to digital and social exclusion, which also leads to a lack of motivation and job satisfaction. Waizenegger et al., (2020) confirm a relationship between technological skills, motivation, and job satisfaction when they found that it becomes emotionally demanding to employees, especially those with technology challenges, leading to fatigue and negative emotions besides feelings of alienation, isolation, and anxiety. Therefore, the fourth hypothesis is:

H_4: Technological skills mediate the relationship between employee motivation and job satisfaction when WFH.

Due to the above literature, the conceptual framework in Figure 2 below was proposed to explain the relationships between the dependent variable, independent variable, and moderating variable. The framework showed WFH as the dependent variable that influences employee motivation and job satisfaction.

Based on the above research questions, the researcher tested the following hypotheses.

Figure 2: Conceptual Model



Source by author

H_1: There is a significant relationship between working from home and employee motivation.

H_2: There is a significant relationship between working from home and job satisfaction.

H_3 There is a significant relationship between employee motivation and job satisfaction.

H_4: Technological skills mediate the relationship between employee motivation and job satisfaction when WFH.

2.8 Summary

This section unpacked various constructs; employee motivation, job satisfaction, technological skills, and professional isolation. The section explored how they relate to each other and how motivation and job satisfaction are positively or negatively impacted when employees work from home. Motivation and job satisfaction are fundamental factors in achieving organizational goals and productivity, according to several researchers.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

This section discussed different types of research methods. There are various research methods including the two major data collection methods, which are quantitative and qualitative. Quantitative research involves collecting numerical data which are generally large to explain a particular question, for example, how many people or what percentage (Martin & Bridgmon, 2012). It is suitable for quantifiable measures of variables from population samples. After collection, the data is performed using statistical procedures using software such as SPSS, R Studio, or Stata. On the other hand, qualitative does not deal with numerical representation but gives the researcher an understanding of a particular problem in-depth, They do this by examining documents, observing behaviour, and interviewing participants (Chih-Pei, Chang, & Creswell, 2017). According to Maxwell (2013), the qualitative method is concerned with motives, beliefs, values, and attitudes. However, in this study, the effect of WFH on employee and job satisfaction is to be determined using a quantitative method.

The section provides details on how data was collected, the data collection instruments and methods of research, ethical considerations, and any limitations that arose during data collection.

3.1.2 Research Paradigm

A research paradigm is an approach used by researchers concerning how they view the world as individuals based on the selected research method and strategy (Bhattacherjee, 2012). Paradigms are relevant when looking for evidence for the research in question. A paradigm will decide for the researcher which ontology, epistemology, and methods to be used. There are various research paradigms, these are positivist, interpretivism, and post-positivist (Bhattacherjee, 2012). However, this research study focused on the positivist paradigm because this study tested the hypotheses. This is because the research is based on theories and tests hypotheses using empirical data. The objective of the theory was to produce testable hypotheses that allow the veracity of claims to be determined. The test was conducted using statistical analysis. The purpose was to identify and explain the relationships between selected dependent and independent variables and the non-academic university staff.

The word ontology derives from the Greek word 'Ontos' which means being and 'logos' which means study. Thus, in that case, ontology is the study of being or how one sees the world and how these assumptions can mould perceptions (Saunders, Lewis, & Thornhill, 2019). According to Bryman & Bell (2011), the ontological position states that current phenomena are continuously changing and can also be identified with a particular amount of knowledge which could be difficult to determine within the social world.

Epistemology is defined as the method of acquiring knowledge and communicating it to others (Scotland, 2012). It is about how the researcher differentiates between right and wrong and how the researcher sees the world around them (Alharahsheh & Pius, 2020). Therefore, epistemology helps the researcher to gain knowledge, be able to choose which paradigm to use, and find it easier to decide on which methods and research designs to select (Scotland, 2012). This study was to help the researcher learn the value, feelings, behaviours, and perceptions of different individuals working at the same institution. This also helped the researcher understand how employees feel about WFH and whether they are motivated and satisfied with their jobs during the pandemic.

Axiology concentrates on the values and ethical matters that need to be considered during the planning of the research by ensuring that the concepts of right and wrong behaviors are well evaluated and understood (Kivunja & Kunyini, 2017). It focuses on the questions that the researcher ought to be asking such as how the research should be conducted concerning moral issues, how they can be addressed, respect and peace during research, and how to avoid or minimize risk or harm either physical or psychological (Kivunja & Kunyini, 2017).

3.1.3 Research design

The choice of the design selected is important because it helps the researcher to address the problems and allow investigations (Taylor, Bogdan, & DeVault, 2015). This particular study was conducted using quantitative research to determine the relationships between variables and outcomes. Quantitative research is useful for getting a variety of opinions, attitudes, behaviours, and perceptions of the population about some issues. Most importantly, the quantitative method allows less time wasting during data analysis as it uses software such as R and SPSS (Rahman, 2017). In this study, the quantitative approach employed the empirical data gathered through a questionnaire. The design satisfied the purpose of the study because it is time-saving, unlike the qualitative approach, which requires a lot of time and resources.

There are different types of research designs, namely; longitudinal design, cross-sectional and experimental designs (Bryman & Bell, 2011). To collect measurable data related to two or more variables, many institutional studies particularly those in business and management research use the cross-sectional design, in which data is collected at a specific point in time. However, due to its research advantages, this study found a cross-sectional study more appropriate. This is a form of quantitative design that uses a single questionnaire to measure variables at the same point (Bhattacherjee, 2012). Cross-sectional studies are quick, easy, and inexpensive to conduct as they are based on questionnaires, and again no follow-up is required as participants are interviewed only once (Sedgwick, 2014). The advantages cited by Wang & Cheng (2020) are that numerous outcomes and exposures can be researched, and a variety of findings can be used to produce a comprehensive research study, they are also relatively quick and inexpensive to conduct.

3.4 Delineation of the Study

3.4.1 Study setting

The study was conducted at a public university in Johannesburg Gauteng. It is one of the largest institutions of higher learning in Africa. The institution has 5 faculties and 33 schools. The university admits students from both local and international, furthermore, it is considered one of the best internationally. The institution has a population of 4490 non-academic staff. The study had a sample size of 354 participants. This was achieved by finding the population size and then calculating it using the Raosoft calculator. The formula is E= SQRT$\left[\frac{(N-n)X}{n(N-1)}\right]$,

Where:

N = population size

r = the fraction of responses

Z = (cl/100)

C = the critical value for the confidence level.

The study targeted the entire institution both males and females who are support staff.

3.4.2 Site selection

The study conducted in this institution is guided by the perception that these employees play a fundamental role and unless they are satisfied and motivated, they cannot achieve their objectives and those of the organization. The researcher chose the site because of its cost-effectiveness and being one of the largest in the province was an advantage for the researcher, eliminating the need for long journeys. Importantly, the University has a diversified group of employees, both locally and internationally; of a wide range of age groups, gender, ethnicity, work experience, and academic qualifications all of which increased the variability of scores on motivation and job satisfaction, an important prerequisite for inference-making on studies of this calibre.

3.4.3 Unit of analysis

The unit of analysis is the primary piece in the methodology; it determines the object of research for which an empirical study is intended to provide insight (Damsa & Jornet, 2020). In this case, the unit of analysis was the non-academic staff of a public university in Johannesburg South Africa. The researcher collected data from administration workers (coordinators, finance officers, IT workers, etc.) in the institution. The researcher chose the non-academic staff because there is no research study, or very few, if any, that are known to the researcher. Unless there is an amicable agreement between employer and employee, non-academic employees are known to work in the workplace compared to academic employees.

However, being forced to work from home was different and this could affect their performance. In their study, Birimoglu & Mehmet (2022) suggested that employees who are not used to WFH need a working environment that is as similar as possible to the workplace environment. A study by Dockery & Bawa (2014) argues that most employees tend to work longer hours when working from home, this can exacerbate feelings of work-family conflict for the employee. As a result, they are forced to devote more time to work, more effectively balancing work time with family and other commitments outside of work. On the other hand, Birimoglu & Mehmet (2022) argue that a pleasant working environment and well-groomed

physical conditions, such as a pleasant temperature and a low noise level, increase the productivity and job satisfaction of employees.

Non-academic staff are the backbone of the institution, ensuring that all activities function as required and the institution's standards remain high. It is important that they remain motivated during the WFH. The work environment and work-life balance should not affect their performance as it could affect their productivity and the standards of the institution. Above all, the institution learns from the non-academic employees what challenges the institution is going through and how these can be solved. This can only be achieved if the support staff are motivated and satisfied with their work.

3.4.4 Target population

According to Bryman & Bell (2011), the population is referred to as the universe of units from which to select a sample. The population targeted in this study was the non-academic employees at a public university. The choice of this particular institution was based on the researcher's knowledge of the environment, and apart from that, the institution includes diverse demographic profiles. Besides, the institution is also one of the leading institutions in South Africa thus, it is important to find out the employees' perception regarding WFH and how this can be improved further. The sampling frame was obtained from the University's human resources department. A structured questionnaire, presented in Appendix 2, was given to the participants through face-to-face and online surveys. The advantage of a face-to-face survey is that the research gets the highest response and lesser missing data (Beagan, Fischer, & Kuppam, 2007). On the other hand, an online survey is more effective because it is time-efficient, cheaper and a large number of interviews can be conducted (Ball, 2019). These employees ensure that the objectives of the institution are met. The research study targeted non-academic staff across the institution.

3.5 Sampling

3.5.1 Sample size estimation

The sample size is the total number of participants included in the study. The research study was conducted at the entire institution with the participation of all genders. The participants were randomly picked from different faculties and given questionnaires. Using Raosoft software, the recommended sample size was calculated to be 354 employees. This is an online software formula for calculating sample size. Raosoft ensures that the sample represents an appropriate population size; it considers the population, margin of error, confidence level, and response distribution when determining sample size.

3.5.2 Sampling strategies

Sampling strategies are very fundamental as far as experimental research and Social Sciences are concerned (Suresh, Thomas, & Suresh, 2011). The two most commonly used sampling techniques are probability and non-probability sampling.

3.5.2.1 Probability Sampling

According to Acharya, Prakash, Saxena, & Nigam (2013), probability sampling is typically chosen to guarantee that each possible participant has an equal chance of being chosen. As a result, the likelihood of representation is greater than in non-probability sampling. The fundamental aspect of probability sampling is the creation of a method that gives each participant a known possibility of inclusion (Etikan & Bala, 2017). The researchers further stated that the process of selecting participants is not deliberate or influenced by the researcher. Choosing a sample from the entire population in this manner ensures that every member of the population has an equal probability of getting chosen. Probability sampling is further classified into different sampling namely; simple random sampling, systematic random sampling, and stratified random sampling among others.

3.5.2.2 Non-probability Sampling

Non-probability samples are those where the probability of a subject being selected is unknown, leading to selection bias in the study (Achaya et al.,2013). Unlike probability sampling, which has a single framework for sampling and inferring about a population, there are numerous different types of non-probability sampling (Bryman & Bell, 2011). The most commonly used non-probability sampling methods are convenience/purposive sampling, quota sampling, Snowball sampling, etc.

However, probability sampling was used for this study. As already noted, there are several classifications under probability sampling but a stratified random sampling approach was used in the study. This type of sampling requires participants to be divided into smaller homogeneous groups (Acharya et al., 2013). The stratified random sampling method is a probability sampling technique in which people sharing common characteristics are first grouped. For instance, in this study, faculty, age, and gender categorized the employees. A random sample was then selected from the groups (known as strata). Stratified, random sampling ensured that all groups were represented in the sample in the same proportions as in the required population (Acharya et al., 2013). To obtain an ideal sample size, a systematic sampling technique is used. Part of the non-academic staff participated in the study. The staff was divided into categories, in this case, different faculties as shown below.

The figures below represented the expected number of support staff that were to take part in the study from each faculty.

Table 1: Sampling frame

Faculty	**Number of staff**
Commerce	10
Engineering	29
Health	18
Humanity	17
Science	8
Central administration	272

Source: author

3.5.3 Data collection strategy

As implied in the foregoing discussions, a primary data collection strategy was used for this study. The main instrument for data collection was the questionnaire, the questionnaires were distributed to the participants both face-to-face and online (monkey survey). One important advantage of distributing questionnaires using a face-to-face approach over an online survey is its ability to achieve a higher rate of feedback (Hartono, 2013). However, the advantage of survey monkey is that the user can share the link to the questions and feedback gathered from anywhere. The researcher walked from office to office, recruiting participants from various faculties. Before distributing the questionnaires, the researcher explained to the participants the purpose of the study and the importance of participation and allow them sufficient time to respond to the questions.

3.5.4 Data Collection Methods

A questionnaire was used as an instrument. A questionnaire is a psychometric type of scale with multiple categories that participants respond to by indicating their thoughts or feelings about a particular subject (Nemoto & Beglar, 2014). Closed-ended, 7-point Likert scale questions were used because of their flexibility and giving the participant a wider choice for selecting an option that is closer to the true scale (Wu & Leung, 2017). This also gives the researcher variability to analyze the data because of the different levels of choices. The questionnaire was only available in the English language. 400 questionnaires were distributed, resulting in 301 acceptable answers, which corresponds to a response rate of 85%. To achieve the sample size for the study as indicated in the methodology, bootstrapping was executed with 1,000 samples to account for any anomalies in the data. Bootstrapping involves random resampling to get the desired empirical distribution (Mooney & Duval, 1993).

Bootstrap 95% CI based on 1000 samples

2.5% 97.5%

0.168 0.264

The questionnaire was divided into two sections. The first section was divided into three parts; the first is motivation questions with nine items that were adopted from Fourie (1989). This was used to measure dimensions of employee motivation. There were nine items measured for motivation and the Cronbach alpha was found to be .689

Job satisfaction measured using a 9-item questionnaire was adopted from Cook et al (1981). The scale reliability measured using Cronbach alpha for Job satisfaction was .765 and thirdly, a WFH questionnaire was measured using 10 items which had a Cronbach alpha of .807. The technological questionnaire had five items and the Cronbach alpha was .756. Each statement measured on a 7-Likert scale required a response using "strongly disagree", "disagree", somewhat disagree, neutral, somewhat agree, agree, and strongly agree". The second section of my instruments was demographics that had information such as "age, sex, and qualification ".

3.6 Data quality control

3.6.1 Validity

In quantitative studies, the accuracy of the result is determined through an interpretation of validity, and reliability (Heale & Twycross, 2015). This help to enhance the quality of measurement and inferencing. Validity and reliability are both important as far as the consistency and accuracy of a test are concerned (Bhattacherjee, 2012). Validity is "the extent to which a proportion is accurately measured in a study" (Heale & Twycross, 2015). It, therefore, requires a correct research instrument (questionnaire) to achieve the best results (Bhattacherjee, 2012). For research to achieve its validity, there are compulsory processes that must be followed to produce research findings (Oliver, 2010).

There are different types of validity; construct validity, criterion validity, content validity, and face validity. Construct validity is the most important and difficult to determine (Meadows, 2003). This type of validity measures how well the researcher is measuring what they think they are measuring. Construct validity cannot be shown until the test has been used extensively in practice and substantial data is demonstrating its value (Meadows, 2003). Content validity ensures that the elements on the scale or test accurately represent the topic being measured.

3.6.2 Reliability

Reliability refers to the degree to which a test, an experiment, or a measuring technique yields the same result repeatedly (Carmines & Zeller, 1991). It is the consistency of measure, meaning that each time the test is completed; the researcher should have approximately the same responses (Heale & Twycross, 2015). Meadows, (2003) argued that even though the data can be replicated using the same measure, it is impossible to reliably obtain the same results each time. This is likely to occur because respondents may react to responses to the same question in a way that is impacted by their state of mind, overall health at the time, or memory recall.

To test for employee motivation and job satisfaction, the researcher used Cronbach's alpha to measure the variable. Cronbach's alpha is used to ensure the reliability and internal consistency between items of the questionnaire (Cronbach, 1951). It depicts the homogeneity of a cluster of items that form a scale (Carmines & Zeller, 1991). The alpha value is computed by dividing the items into two groups, and finding out whether the analysis of the two produces comparable results (Taber, 2018). The rule of thumb established by psychologists ascertains that the estimated correlations between factors should not exceed (> 0.85). Cronbach's value of above 0.7 is regarded as strong and values greater than 0.6 are regarded as respectable (Kline, 2011).

3.6.3 Data analysis

Data analysis is a process that a researcher performs to arrive at their conclusions are called research (Creswell & Poth, 2016). Frequencies, indices of central tendency, and regression analysis are all included in the data analysis. For this study, descriptive and regression analyses. Without requiring a complex study, the chosen data analysis provided insight into attitudes toward WFH. These data analysis tools assist in this study's analysis of respondents' perspectives on the intended research questions. Before the data is analyzed, the data is arranged in a specific way. In this study, the questionnaire responses had to be arranged in Excel before running them in R Studio. Data was analyzed using **R^**Studio (R version 3.6.3) to work out the results.

According to Khan, Haleem, & Javaid (2020), R is the best programming language for statistical computing, and R Studio is the tool used for dataset analysis. R also includes tools for plotting, debugging, showing history, and workspace management. It is a development environment rather than just a code editor. **R^**Studio is an integrated development environment (IDE) for R that is free and open-source. Additionally, R can perform different functions of statistical analysis, and the analyses in R can also be easily reproduced (reference) multiple regression analysis techniques were used to test the hypotheses analyse using the **R^**Studio. Multiple regression is a tool used for analysis to explain the correlation between variables (Pedhazur, 1997). This type of analysis requires that the variables be entered into the regression in a specific order (deJong, 1999). This method establishes how well independent variables can explain the dependent variable.

The following equations were tested to determine the relationships, and the results of the analysis are as shown in table (14).

1. $Motiv = \beta_0 + \beta_1 WFH + \beta_2 TecSkl + \beta_3 WFH \times TecSkil + \beta_4 Controls + \varepsilon_{Motiv}$

2. $JobSat = \beta_0 + \beta_1 WFH + \beta_2 Motiv + \beta_3 Motiv \times WFH + \beta_4 Motiv \times WFH \times TecSkl + \beta_5 Controls + \varepsilon_{JobSat}$

3. Simultaneous equation system

   a. $Motiv = \beta_0 + \beta_1 WFH + \beta_3 WFH \times TecSkil + \varepsilon_{Motiv}$

   b. $JobSat = \beta_0 + \beta_1 WFH + \beta_2 \psi + \beta_3 Controls + \varepsilon_{JobSat}$

Multiple regression is useful for examining validity. In addition, it is appropriate for analyzing the effect of predictor variables while controlling the rest of the variables and also to confirm whether the variables are correlated with each other, providing answers to questions like, “Is there any relationship that exists” (Srivastava, 2013). This software is user-friendly because it is easily able to perform both parametric and non-parametric comparison analyses when testing relationships between two variables (Ong & Puteh, 2017).

To determine whether the data collection instrument yielded reliable responses, a Cronbach’s Coefficient Alpha test was conducted. Cronbach’s alpha is a measure of “internal consistency”

reliability and describes the reliability of a sum (Bonett & Wright, 2015). The output was presented in the form of tables and figures to show a summary of the analysis.

3.6.4 Ethical considerations

Due to this study having human subjects, ethical considerations had to be taken into account throughout the study. Before the data collection, an application for ethics clearance was submitted to the institution and the ethics committee for approval. In the application, the researcher had to clarify what the research will comprise, what measures will be taken, and how the data will be stored. Before clearance by the ethics committee, a student must attend training and get a certificate for ethics. The process of collecting data must not be threatening in any way or create emotional harm to the respondents. The topic for this study was non-medical, which means no human experiment was involved and therefore no risk for harm to participants.

Permission was sort and granted by the university registrar for research to be conducted at the university. All the participants were briefed on what is required at the start of the study and any provided information would be strictly confidential. The researcher approached the Participants asking them to participate in the study. They then received a letter with all the information required to decide if they want to participate. Those who accepted to participate signed the consent form; they were also informed that there would be no problem if they decided not to continue being part of the research study. The form was confidential, and the information they provided would be stored responsibly and only be used for this study. The participants were informed that the research report would be stored in the university's database. Ethics contacts were available for any participant that wanted to make any inquiry.

3.6 Summary

This chapter covered the research methodology. The chapter discussed different paradigms, study design, target populations, sampling processes, and data collection strategies and statistical tools. Sample size calculations and ethical considerations were explained and finally, Validity and reliability were discussed in the chapter.

CHAPTER 4

RESULTS

4.1 Introduction

This chapter will discuss the analysis of the statistical results obtained from the data that was gathered for the study using a questionnaire as mentioned in Chapter 3. The results presented answer the research questions asked in Chapter 1. These include; Is there a relationship between WFH and employee motivation", "Is there a relationship between WFH and job satisfaction", "Is there a relationship between employee motivation and job satisfaction" and "How do technological skills affect the relationship between employee motivation and job satisfaction when WFH". The questions are answered through empirical data, through data collected using a questionnaire. The results are presented using descriptive data, which will provide conclusions and recommendations.

4.1.1 Descriptive statistics

4.1.2 Descriptive results of demographics

This section explores the data set through visualizations. The figures below contain the profiles of employees who responded to the survey. In Figure 3 for instance, 69% of the participants were female and 31% male. Out of 354 respondents in this study, 62% were married, 16% were single, 21% divorced and 1% living with their parents. Further, 32% of the respondents had Postgraduate degrees, 30% of the respondents were graduates, 29% of the respondents had a Diploma, and the rest, 9%, had high school qualifications. The majority of respondents were 36-45 years and were employed permanently.

Table 2: Descriptive Statistics for gender

	Frequency	Percent %	Valid %	Cumulative %
Female	244	69	69	69
Male	110	31	31	100
Total	354	100	100	

Figure 3: Descriptive Statistics for gender

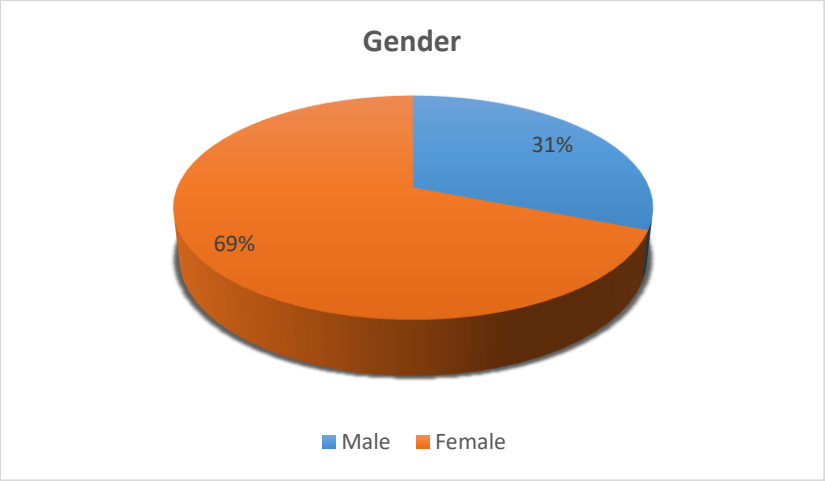


Table 3: Descriptive Statistics for marital status

	Frequency	percent %	Valid %	Cumulative %
Married	219	62	62	62
Single	57	16	16	78
Lives with parent	4	1	1	79
Divorced	74	21	21	100
Total	354	100	100	

Figure 4: Descriptive statistics for marital status

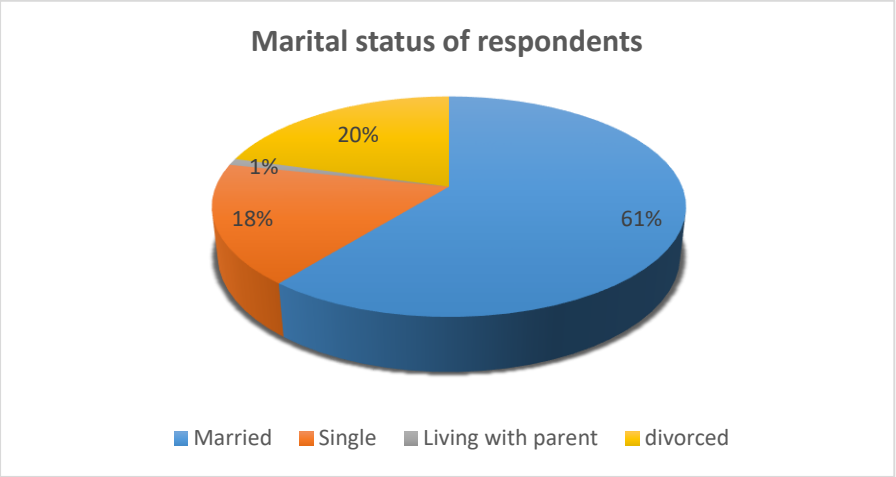


Table 4: Descriptive statistics for the level of education

	Frequency	%	Valid %	Cumulative %
Post-graduate	113	32	32	32
Graduate	106	30	30	62
Diploma	102	29	29	91
High school	33	9	9	100
Total	354	100	100	

Figure 5: Level of education respondents

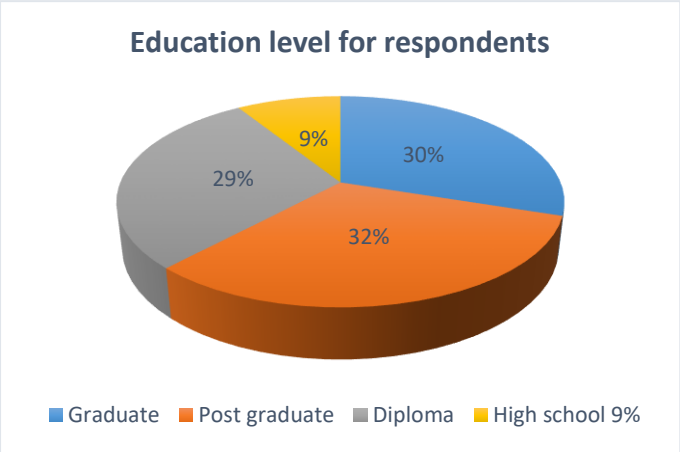
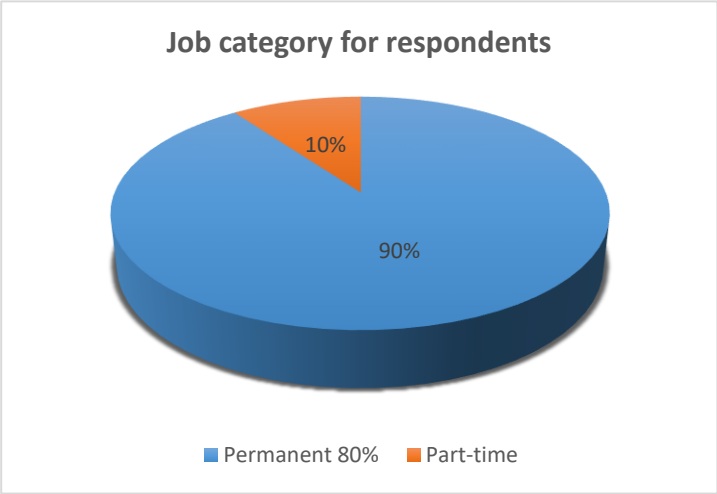


Table 5: Descriptive statistics for employment category

	Frequency	Percent (%)	Valid (%)	Cumulative (%)
Permanent	319	90	90	90
Part-time	35	10	10	100
Total	354	100	100	

Figure 6: Category of employment



4.2.2 Descriptive Analysis of dependent and independent variables

Based on the results from the sample the questionnaire had four categories of questions. Category 1 had WFH, category 2 motivation, category 3 job satisfaction, and lastly technological skills.

4.2.2.1 Working from Home

The following table (6) is a frequency table of results capturing WFH summarized in percentage form. In response to WFH questions, the results indicate that 8% of respondents somewhat disagreed that WFH affects motivation, and 12% of the respondents neither disagreed nor agreed that WFH had an impact on their work. 7% of respondents somewhat agreed with the questions, 38% agreed and 25% strongly agreed respectively that WFH affected their work significantly.

Table 6: Frequency table for WFH

Scale	No of respondents	Percent%
1	6	2
2	27	8
3	30	8
4	42	12
5	25	7
6	136	38
7	88	25

Table (7) summarizes the responses of employees regarding remote work. The highest mean value (M=5.54) was from respondents who somewhat agreed that they were equally productive both at home and in the office, followed by those who somewhat agreed that there was no difference between online and face-to-face meetings with a mean value of M= 5.49. Those who agreed that daily and weekly job objectives were clearly stated had a mean value, M= 5.30, followed by respondents who somewhat agreed that they had all the equipment required to complete their work, M=4.76. Respondents who somewhat disagreed that WFH cannot be improved had a mean value of M= 3.19.

Table 7: Summary of variables capturing WFH

Variable	Mean	SD	Min	Q1	Median	Q3	Max
work objectives clear daily/ weekly	5.30	1.65	1	4	6.0	6	7
Had adequate equipment	4.76	1.90	1	3	6.0	6	7
Equally productive in office and home	5.54	1.82	1	4	6.5	7	7
Working from home cannot be improved	3.19	1.84	1	2	2.5	4	7
Working from home support growth	5.45	1.51	1	4	6.0	7	7
Online and physical meetings equivalent	5.49	1.68	1	4	6.0	7	7
Remote work tech reliable	5.25	1.79	1	4	6.0	7	7
Good focus when working from home	5.46	1.63	1	4	6.0	7	7
Did not miss social interactions	4.65	1.97	1	3	5.0	6	7
prefer working from home	5.08	1.81	1	4	6.0	7	7

4.2.2.2 Motivation

Table 8 reports the frequency table, summarized in percentages, that motivation is affected by WFH. The motivation questionnaire had 9 questions. Out of 354 respondents, 92 (30%) strongly disagreed that they are less motivated when WFH. 122 (34.4%) respondents disagreed. The result also shows 3% as the lowest number of respondents who somewhat agreed that they are less motivated, while 18% neither agreed nor disagreed, 25 (7%) respondents agreed and 24 (7%) respondents Strongly agreed that their motivation was affected when WFH. This is also shown in the table in Appendix D.

Table 8: Frequency table for motivation

Scale	**No. of respondents**	**%**
1 (Strongly disagree)	92	26
2 (Disagree)	85	24
3 (Somewhat disagree)	28	8
4 (Neutral)	53	15
5 (Somewhat agree)	11	3
6 (Agree)	67	19
7 (Strongly agree)	18	5

Table 9 shows the summary statistics of the responses capturing the motivation of employees. On a scale of 1 (strongly disagree) to 7 (strongly agree), most respondents (92 or 26%) strongly disagreed that they had no time to work when working from home (see the mean of the variables capturing motivation, no time to work, in the table).

Table 9: Summary of variables capturing motivation

Variable	Mean	SD	Min	Q1	Median	Q3	Max
Had enough time to work	3.30	2.14	1	2	2	5	7
Work clearly explained	3.93	2.27	1	2	4	6	7
Had comfortable working hours	5.09	1.92	1	4	6	7	7
Satisfied career progress	4.68	1.85	1	3	5	6	7
Equipment tools efficient	4.71	1.81	1	3	5	6	7
Adequate working area	5.14	1.86	1	4	6	7	7
Interest in what I did	6.16	1.22	1	6	6	7	7
Lighting ventilation workplace	5.34	1.88	1	4	6	7	7
Comfortable work environment	5.51	1.81	1	5	6	7	7

Based on the results in Table (9), the highest mean value, M=6.16 indicating that most of the respondents "agreed" that they had interest in their work, followed by the mean value, (M= 5.51), indicating that most respondents "agreed" that they had a comfortable work environment. With a mean value, (M= 4.71) the average respondent "somewhat agreed" that they had efficient equipment or tools for work. The lowest mean value (M = 3.30) indicates that most respondents "somewhat disagreed" with the statement that they had enough time to work.

4.2.2.3 Job satisfaction

Table 10 below presents the frequency distribution of job satisfaction of respondents. As an example, when the researcher posed the question "My day never seemed to end", 13% of the respondents strongly disagreed, implying that they have a high degree of job satisfaction, 80 respondents agreed that they were not satisfied when WFH, 90 (25%) respondents disagreed, and 71 (20%) respondents either disagreed or agreed they were satisfied with WFH. Another 68 respondents remained neutral while 76 (20%) respondents agreed, those who strongly agreed had the lowest was 6% (20) respondents.

Table 10: Frequency for job satisfaction

Scale	**No. of respondents**	**%**
1 (Strongly disagree)	45	13
2 (Disagree)	90	25
3 (Somewhat disagree)	24	7
4 (Neutral)	68	19
5 (Somewhat agree)	31	9
6 (Agree)	76	21
7 (Strongly agree)	20	6

Table 11: Summary of variables capturing job satisfaction

Variable	Mean	SD	Min	Q1	Median	Q3	Max
day seemed to never end	4.21	1.99	1	2	4	6.00	7
work did not disturb family life	4.30	2.20	1	2	5	6.00	7
work did not affect family responsibilities	4.46	2.04	1	3	5	6.00	7
Work had positive effect on private life	5.89	1.17	1	6	6	7.00	7

The institution is important to me	5.59	1.40	1	5	6	6.75	7
Have adequate opport to develop skills	5.16	1.61	1	4	6	6.00	7
could communicate at all levels	4.73	1.85	1	3	5	6.00	7
work did not affect private tasks	3.64	1.88	1	2	4	6.00	7
postpone job tasks due to family responsibilities	1.96	1.13	1	1	2	2.00	7

Based on Table (11) concerning job satisfaction, the highest mean value indicates that most respondents "agreed" (M= 5.89; SD=1.17) that their work affected their private life positively, followed by the mean value, (M= 5.59; SD=1.40), indicating that the average respondent "agreed" that the institution was important to them. Respondents were, on average, "neutral" with a mean value (M= 4.30; SD=2.20) that work did not disturb their family life. The lowest mean value (M= 1.96; SD = 1.13) indicates that respondents "disagreed" that they had to postpone their job tasks due to family responsibilities.

4.2.2.4 Technological skills

Table 12 visualizes the variables that capture the use of technology by employees while working from home. Most respondents "agreed", with a mean value (M= 5.52; SD= 1.30) that help was available whenever they had difficulties with technology. A mean value, (M= 4.88; SD= 1.98) indicate that respondents "somewhat agreed" on whether technology hindered their work. The lowest mean value (M= 2.85; SD= 1.76) indicates that respondents "somewhat disagreed" that they did not miss important information due to a lack of technological skills.

Table 12: Summary of variables capturing technological skills

Variable	Mean	SD	Min	Q1	Median	Q3	Max
Communication employees easy	4.89	1.62	1	4	5	6	7
Access of work related info hard	5.15	1.65	1	4	6	6	7
Did not miss important information	2.85	1.76	0	1	2	5	7
Technology did not hinder work	4.88	1.98	1	3	6	6	7
Remote help available incase digital hitches	5.52	1.30	1	5	6	6	7

4.3: Reliability analysis

As noted in the methodology section, a hard copy and an online questionnaire were used to collect the data from the non-academic staff of the University of the Witwatersrand, Johannesburg. In this section, the reliability and validity of the scales used were tested using Cronbach's Alpha. Cronbach Alpha is useful for quantifying the reliability of the data by measuring the degree to which item responses correlate (internal consistency) with each other. The instrument consists of four key dimensions namely, WFH, motivation, job satisfaction, and technological skills.

Table 13: Reliability of variance

	WFH	Motivation	Job satisfaction	Technological skill
Average inter-item covariance	.869	.698	.7996	1.079
Cronbach's Alpha	.807	.689	.765	.756
No. of items	11	9	9	5
Sample units	354	354	354	354
Overall average inter-item covariance: .553 Number of items on the scale: 34 Scale reliability coefficient: 0.877				

Based on the above, the overall average inter-item covariance: .553. The number of items in the scale is 34. Therefore, the scale reliability coefficient (Cronbach's alpha= 0.877). An acceptable Cronbach's alpha is between 0.6 and 0.8. Therefore, the reliability test suggests that the instrument's internal consistency is considered very well (Kline, 2011).

4.4 presentation of Empirical Results

In this section, the research questions are examined in greater detail. An aggregate metric was created to capture the four variables, which are working from home, motivation, job satisfaction, and technological skills. To construct these variables from the responses in the questionnaires.

4.4.1 WFH and employee motivation

Figure (7) reports the scatter plot of the relationship between employee motivation and working from home. There is a positive relationship between the two variables. Motivation

seems to trend upwards or increase with WFH. In the regression analysis, reported in Table (14), the significance of the relationship between employee motivation and WFH is examined in the presence of other related variables.

Figure 7: WFH and employee motivation



4.4.2 Working from home and job satisfaction

Figure (8) shows a positive but weak correlation between WFH and job satisfaction. The result of the two variables shows a significant correlation trending upwards. A further result of this relationship is examined in the regression analysis in the table.

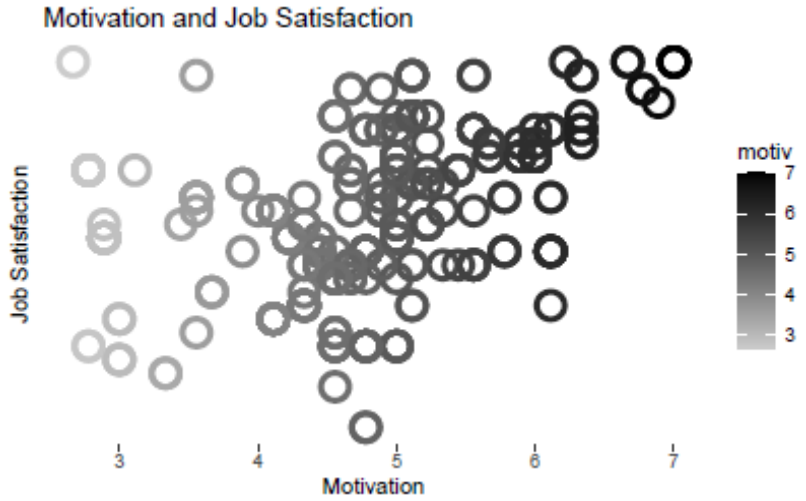
Figure 8: Correlation between WFH and job satisfaction



4.4.3 Employee motivation and job satisfaction?

Figure (9) shows a positive and reasonably strong correlation between employee motivation and job satisfaction

Figure 9: Correlation between employee motivation and Job satisfaction



4.4.4 Technological skills, employee motivation, and job satisfaction when working from home.

Overall, there is a positive relationship between employee motivation and job satisfaction (see Figure 10 below). The figure also indicates that employees with better technology skills have higher motivation. However, job satisfaction does not appear to have a significant relationship with technological skills. The implication here is that the positive relationship between employee motivation and job satisfaction arises from other factors beyond proficiency in technology. Some of these other factors have been discussed in the regression analysis in the next section.

Figure 10: Respondents profile (% of total count)

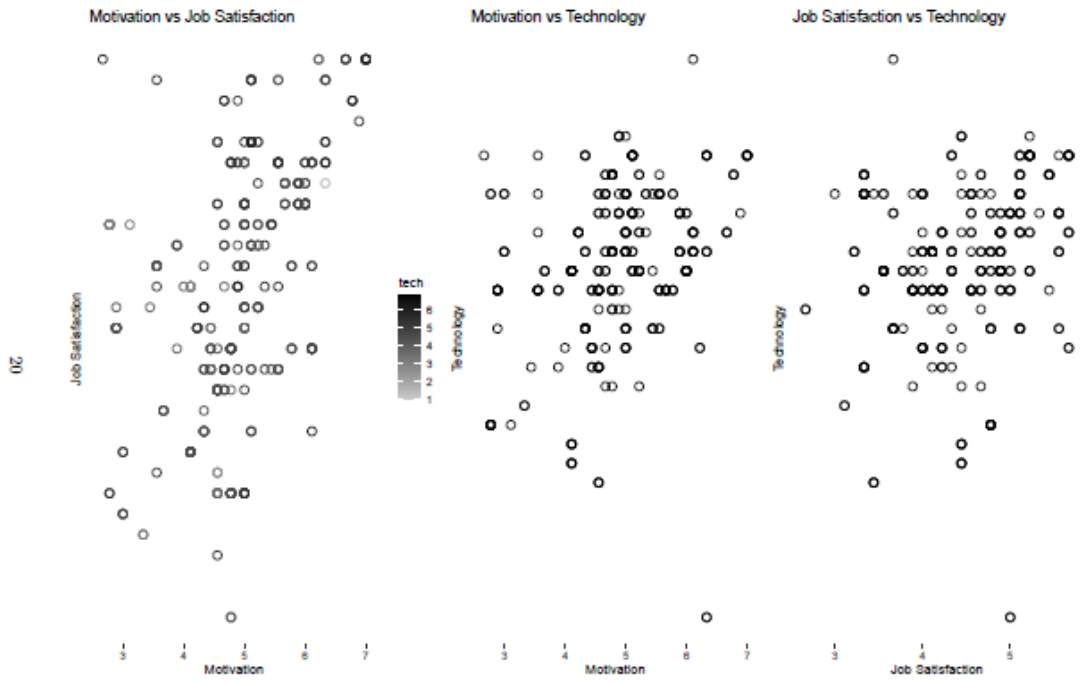


Figure 2.6: Respondents Profile (% of Total Count)

4.5 Regression analysis

To answer the research questions, a regression analysis, was run to understand the effect of WFH during COVID-19 and how this could affect employees' motivation and job satisfaction. Regression is commonly used to determine the relationship between each of the dependent variables and various explanatory variables. There are several procedures for aggregating responses from a questionnaire. In the results reported in this section, we used simple averaging, which assigns equal weights to each response. The results were qualitatively similar when the principal components analysis was used for aggregation. However, the first principal component, used for aggregation, did explain only about 50% of the overall variation.

Table 14: Multiple regressions

Dependent variable	Motivation	Job satisfaction	Job satisfaction
	(1)	(2)	(3)
Working from home	0.945*** (0.232)	-0.481*** (0.176)	
Working from home*			-0.235 (0.534)
Motivation		-0.157 (-0.177)	
Motivation*			0.910 (1.200)
Technology skills	0.865*** (0.272)	0.097** (0.042)	0.002 (0.224)
Age group: 26-35	0.365 (0.525)	-0.052 (0.387)	0.110 (0.433)
Age group: 36-45	0.274 (0.530)	0.268 90.390)	0.390 (0.437)
Age group: 46-55	-0.044 (0.532)	0.370 - (0.392)	0.398 (0.438)
Age group: Over 55	0.489 (0.533)	0.032 (0.392)	0.273 (0.439)
Gender: Male	-0.634*** (0.090)	-0.211*** (0.071)	-0.452*** (0.074)
Marital: married	0.249** (0.105)	-0.372*** (0.076)	-0.316*** (0.087)
Marital: single	-0.293** (0.133)	-0.480*** (0.099)	-0.638*** (0.110)
Marital: live with parents	0.029 (0.436)	-0.332 (0.323)	-0.379 (0.360)

Education: Graduate	0.012 (0.101)	0.258*** (0.075)	0.280*** (0.084)
Education: High School	-0.076 (0.153)	0.667*** (0.113)	0.642*** (0.126)
Education: Postgrad	-0.575*** 0.104	0.374*** (0.080)	0.187** (0.085)
Employment: temporary	0.116 (0.145)	0.220** (0.108)	0.227* (0.120)
$wfh \times tech$	-0.119** (0.052)		
$wfh \times motiv$		0.103*** (0.035)	
Constant	-1.120 (1.280)	4.560*** (0.913)	1.090 (2.220)
Observations	354	354	354
Adjusted R2	0.444	0.402	0.254
Residual Std. Error	0.709 (df = 338)	0.523 (df = 337)	0.585 (df = 338)
F Statistic	19.800*** (df = 15; 338)	15.800*** (df = 16; 337)	9.000*** (df = 15; 338)
*p<0.1; **p<0.05; ***p<0.01			

4.5.1 Motivation

The first test is a regression of motivation on variables including working from home (WFH), technological skills, age group, marital status, education level, and work experience as independent factors and motivation as a dependent factor.

$$Motiv = \beta_0 + \beta_1 WFH + \beta_2 TecSkl + \beta_3 (WFH \times TecSkil) + \beta_4 Controls + \varepsilon_{Motiv}$$

Where motivation ($Motiv$), working from home (WFH), and technological skills ($Tecskil$) are constructs developed from responses to several questions, in the questionnaire, believed to be able to capture them. $Controls$ include gender, age group, marital status, education level, employment category, and work experience. Also included is the interaction between technology and WFH. The results of the multiple regression analysis are reported in Table 14.

Column (1) of the table reports results for motivation. The relationship between WFH and motivation is positive and significant at the 1% level, with a coefficient estimate of (0.945, SE=0.232). WFH is positively and significantly related to motivation, indicating that WFH reinforces individuals' drive to meet their personal goals and those of the organization, and

in the process to achieve to achieve the main objective of the employer. A good work environment and good work conditions can increase employee job satisfaction and the employees will attempt to give their best, which can increase the employee work performance. The coefficient estimate (0.865; SE=0.272) for technological skills is also positive and significant at the 1% level; this indicates that technologically skilled employees are more motivated than those who are not. The interaction between WFH and technical skills has a negative and significant (at a 10% level of significance) relationship with motivation, with a coefficient estimate value of -0.119 (SE = 0.051). This result implies that technologically skilled employees are less motivated when they work from home than when they work from the office, perhaps because working from home does not avail them of adequate opportunities to utilize their skills optimally (Rahiem, 2020).

The regression, however, reports that male employees are less motivated than female employees (coefficient estimate, -0.634; SE = 0.089) at the 1% level of significance. Married employees are reported to be significantly and positively motivated at the 5% level of significance compared to employees who are either divorced or not willing to disclose their marital status. The coefficient estimate for single employees is negative and significant (-0.293; SE=0.436) at the 5% level of significance, implying that they are less motivated than their divorced counterparts and those not willing to disclose their marital status. Employees with a post-graduate qualification are reported to be less motivated (coefficient estimate, -0.575; SE = 0.103) at the 1% level of significance compared to their counterparts holding a diploma. One could have expected that workers with higher education levels would be more satisfied with their jobs than their less educated co-workers. The disparity in job satisfaction between higher and lower-level employees may have been influenced by the evolving tech-based work conditions. A study by Roser, Nizai, & Arantza (2018) indicates that the growing sentiments of isolation among centralized workers may be explained by the extensive usage of computer-mediated communication tools. These workers may be less motivated and have lower satisfaction because of psychological and professional isolation. Wang et al., (2020) also found that experienced teleworkers experience psychological isolation, feel disconnected, and less likely to seek the frequent interactions with their colleagues necessary to generate positive emotions, thereby unmet their need for interpersonal connections and a sense of belonging. There were no other significant differences between the remaining groups. The

first regression shows adjusted R-Square of regression 1 = 0.444, the coefficient variant SD= 0.709, and the F statistic value is 19.8.

4.5.2 Job satisfaction

Column (2) of Table 14 reports results for the first regression with job satisfaction as the dependent variable. The following equation is estimated:

$$JobSat = \beta_0 + \beta_1 WFH + \beta_2 Motiv + \beta_3 Motiv \times WFH + \beta_4 Controls + \varepsilon_{JobSat}$$

The results show that working from home (WFH) is negative and significantly related, at 1%, to job satisfaction, with a coefficient estimate of -0.481 (SE = 0.176). This indicates that when employees WFH, they are less satisfied with their work than when they work from the office. That is, the results imply that the WFH "work environment" may not be ideal for most employees for various reasons such as "lack of effective communication" which, in the questionnaire, appears to be among the experiences about which respondents scored low points. These results are consistent with the explanation by Setiyani et al., (2019) that positive effects on job satisfaction can be achieved when there is a favourable work environment. Therefore, if job satisfaction and organizational commitment can be attained, employees get motivated to work harder to accomplish organizational goals and are more satisfied with their work. On the hand, when they work from home, this work dissatisfaction might intensify because they would probably work longer to solve organizational problems, but nobody within the firm notices and formally recognizes the excessive demand for their time and effort. The results, however, show that Motivation does not significantly explain job satisfaction. This result study is not in line with Ayub & Rafif (2011) which state that motivation and job satisfaction are inseparable. This lack of a relationship can be explained by several reasons, for example, motivation is triggered by internal reasons, while job satisfaction is influenced by extrinsic factors such as wages, and social recognition of work among others (Anghelache, 2015).

4.5.3 The Role of Technological Skill on employee motivation and Job Satisfaction

Technological skills are positively and significantly related to motivation at a 1% level with a coefficient estimate of (0.865, SE=0.272). The findings also report that there is a positive and

significant relationship between Technological skills and job satisfaction at the level of 5% with a coefficient estimate of (0.097, SE = 0.042), implying, like in the case of motivation, that skilled employees are more satisfied at the workplace than employees with lower technological skills levels. It is evident that the interaction of WFH and motivation has a positive significance with job satisfaction with a coefficient estimate value of 0.103 (SD = 0.034) at a 1% level of significance, employees WFH are motivated and highly satisfied.

However, the findings indicated that there was negative but a significant relationship with employees who work from home at a level of 5% with a coefficient estimate of (-0.119. SE=0.052). This implies that technological skill does not affect them because most of them were technologically savvy. Again, like in the case of motivation, male employees are less satisfied compared to their female counterparts, at a 1% level of significance coefficient estimate of (-0.211; SD = 0.071). The coefficient estimate value of -0.372 (SD=0.075) at a 1% level of significance, indicates that married employees are less satisfied with their work compared to divorced and "do not want to say" employees. Similarly, single employees are also reported to have lower levels of job satisfaction.

The results also report that graduate employees are significant and positive with a coefficient estimate value of 0.258 (SD =0.075) at a 1% level of significance. This indicates that they are more satisfied compared to employees with Diplomas. However, post-graduate employees and those with high school certificates are significant but negative, this indicates that are less satisfied compared to employees with Diplomas Perhaps job satisfaction levels of higher and lower-level employees may have been influenced by certain unusual job situations because each position within the organization has a unique set of problems (Melati & Rizkillah, 2022). The adjusted R-Square =0.402, coefficient variant (SD=0.523), and F statistic is 15.8.

4.6 An alternative aggregation approach

As explained, this section repeats the regressions in Section 4.5 using the median as the aggregation method for job satisfaction, working from home, motivation, and technological skills. That is, the median of the responses to the questions designed to collect data on these constructs is obtained and used in the regression (rather than the simple average as in Section 4.5). The key benefit of using the median is that it leaves the measurement of the constructs in the same form as the original responses in the questionnaire – that is, in the ordinal scale – and therefore speaks better to the nature of the data gathered than the simple average,

which converts them to a ratio scale. Because of the ordinal nature of the data, ordinary least squares (OLS) regression (used in the previous section) is no longer suitable. Thus, we use the ordered logistic regression approach in this section. The results are reported in Table 15. Since the effects of the control variables are already extensively discussed in the previous section, this section focuses only on the key explanatory variables in each regression.

4.6.1. Motivation

Column (1) of Table 15 reports the results for motivation under the new approach. Like before, the relationship between motivation and WFH is positive and significant at 1%, with a coefficient estimate value of 0.289 (SE = 0.091). That is, the probability that an employee working from home is motivated stands at approximately 28.9%. This is consistent with previous research on motivation. For example, research by Dizaho, Salleh, & Abdullah, (2017) documents that with more flexibility regarding their work schedules, WFH employees can give more time with their families, which lowers the number of work-life conflicts and raises motivation levels, yielding a positive impact on their productivity. It is also evident that individuals with superior technological skills show higher levels of motivation than those with fewer skills (coefficient estimate value, 0.036 SE=0.012). Finally, contrary to the results in Section 4.5, the results show that working from home does not have a significant mediating effect on the role of technological skills on motivation.

4.6.2. Job satisfaction

Based on the results in Column 2 of Table 15, WFH is significantly negative at 1% with a coefficient value of -2.162 (SE=0.562), consistent with the results reported in Table 15 (Column 2). Thus, the results confirm robustly that working from home and job satisfaction are negatively correlated. Unlike the results in Table 15, however, where motivation had no discernible effect on job satisfaction, the results reported in Table 16 indicate that motivation is negatively significant at 1% with a coefficient estimate value of (-1.976, SD = 0.676). This is an aberration from expectation and is probably explained by the fact that certain effects of working from home may be picked by the motivation construct. We deal with this possible problem in the second regression where we orthogonalize motivation to working from home, as also done in Section 4.5. However, when interacting with WFH, motivation reports a

positive effect on job satisfaction again perhaps because WFH enables them to reduce the negative effects of items such as "affecting their private tasks" which the questionnaire responses document to be one of the factors that increase job dissatisfaction.

Finally, the results of the second job satisfaction regression are reported in Column 3 of Table 15. As expected, WFH maintains its negative and significant relationship with job satisfaction, robustly confirming its dissatisfying role in employees. Motivation explained reported a coefficient estimate value (3.582, SD=1.018), which was significant. The explained component of motivation (explained by working from home and the interaction between working from home and technological skills) reports a strongly significant (at 1$) and positive effect on job satisfaction. This is largely expected as previous studies for example, Timsal & Awais (2016), confirms that employees who are technologically informed are more flexible and can work from home or anywhere without challenges. The adjusted R-Square is 0.254, the coefficient variant (SD= 0.585), and the F statistic is 9.00.

Table 15: Ordered logistic regressions

	Motivation	Job satisfaction	
	(1)	(2)	(3)
WFH_	1.428*** (0.530)	-2.162*** (0.562)	-2.449** (1.054)
Motivation		-1.976*** (0.676)	
Motivation*			3.582*** (1.018)
Technological skills _	1.466** (0.633)	-0.236 (0.253)	-2.000*** (0.602)
$WFH \times TecSkil$	-0.125 (0.114)		
WFH x Motivation		0.518***	

		(0.136)	
Male	-1.472*** (0.375)	-0.340 (0.411)	-1.057 (0.395)
Age group: 26-35	0.014 (0.616)	-1.975*** (0.738)	-1.455** (0.743)
Age group: 36-45	-0.873 (0.677)	0.107 (0.596)	0.179 (0.606)
Age group: 46-55	-1.370* (0.748)	-0.424 (0.640)	-0.256 (0.708)
Age group: 56-65	-1.953*** (0.727)	-2.712*** (0.910)	-2.594*** (0.861)
Marital status: single	0.437 (0.622)	-0.947 (0.585)	-0.903 (0.583)
Marital status: married	0.540 (0.467)	-1.128*** (0.398)	-0.932** (0.460)
Marital status: live with parents	-0.638 (0.863)	-4.445 (0.538)	-0.631 (0.664)
Education: high school	0.466 (0.803)	0.346 (0.740)	0.698 (0.884)
Education: graduate	0.040 (0.436)	-0.115 (0.440)	-0.007 (0.442)
Education: postgraduate	-1.748** (0.529)	0.406 (0.503)	-0.060 (0.514)
Employment: temporary	0.178 (0.720)	1.976*** (0.788)	1.616** (0.758)
*p<0.10; **p<0.05; ***p<0.01			

4.6.3 Regression diagnostics

The regression diagnostics in the appendix show the relationships between variables and trends of data.

4.6.3: Summary

This chapter presented an analysis of the results of quantitative research. The first section presented the level one descriptive analysis and the testing of the measures used for reliability and validity. The second section presented the relationships between the dependent and independent variables. The last section presented and discussed the tests.

CHAPTER 5

DISCUSSION

5.0 Introduction

This chapter discusses the research results based on the analysis and the interpretation of the presented results. The analysis involves comparing the findings of this research study with the findings and insights obtained in the literature reviewed in Chapter 2.

The research findings will be discussed according to the objectives stated in Chapter 1 of this paper. The objectives are namely; to establish if a relationship exists between working from home and employee motivation, ascertain whether there is a relationship between working from home and job satisfaction, determine whether there is a relationship between employee motivation and job satisfaction, and determine whether technological skills have an impact on employee motivation and job satisfaction when working from home.

Cronbach Alpha For the study, coefficients for each of the four subscales and the scales as a whole were established. The correlation between the variables fell between the ranges of 0.6 and 0.8. Two-sample T-test was conducted to determine significant dependence; Table 14 shows a combined regression analysis of motivation and job satisfaction and how they interacted with the other variables.

5.1 Hypothesis testing

Hypothesis testing is done to determine whether the available data adequately support the hypothesis in the study. The results in Table (19) of the regression analysis done to test the significance of independent and dependent variables are discussed below.

5.2.1 Relationship between WFH and Employee Motivation

The first hypothesis in the study suggested that there is a significant relationship between WFH and employee motivation. The finding in the first regression shows a correlation between WFH and employee motivation is significant with a standard coefficient (SD= 0.232 < 0.01), suggesting that there is a positive significant relationship between WFH and motivation. The respondents agreed that they were equally productive in the office and at home and WFH supported their growth, this could contribute to their motivation. The second regression reported a standard coefficient (SD= 0.091<0.01) which is also significant and

positive. Results showed that some respondents felt they did not have enough time to complete their task and that it had been clearly described, which may have impacted their motivation. This agrees with the research conducted by Kniffin, et al., (2021) and Feng & Savani, (2020), who suggest that the negative significance is due to uncertainties of transition from office to WFH and distraction by children and other family members. In addition, being forced to work from home can also negatively affect employee autonomy and demotivate them. In their research, Golden et al., (2008) found that employees who are engrossed in their work are more likely to develop burnout and turnover intentions when working from home than when working at the workplace. This is because absorbed employees who work from home tend to experience higher levels of work-home interference. However, the results of this study indicate that employees became accustomed to WFH over time, resulting in a positively significant association.

In the present study, the hypothesis suggested a significant relationship between WFH and employee motivation, the findings indicate that most employees were either neutral or somewhat agreed with WFH. The respondents indicated that they were equally productive in the office and at home and WFH supported their growth, this could contribute to their motivation. Several researchers have examined how WFH affects motivation, for example, Golden, Veiga, & Dino (2008) explain how people who work from home can suffer from stress stemming from social and professional isolation, communication difficulties, and changes in social relationships due to a lack of face-to-face interaction. On the contrary, WFH relies solely on having children at home, a comfortable room, a quiet environment, and reliable internet access, according to Prasad et al., (2020), these factors are the most important factors together with physical activity, communication with colleagues, office design and satisfaction with the indoor climate. Based on the results Communication is clear and easy, especially since there are many mobile applications and software available for this.

One of the problems that this research study was examining was professional isolation. Several studies found that professional and social isolation developed as a result of WFH. For example, Cacioppo, Cacioppo, Capitanio & Cole (2015) noted in their evolutionary theory of solitude that the need to interact with others cooperatively, resulting from working together, is essential to human survival, and according to this theory, a lack of positive human

interaction results in feelings of loneliness. According to Golden et al., (2008), Feelings of professional isolation would be negatively related to WFH performance and positively related to their intentions to leave. Based on the results, it is clear that not all individuals who work from home feel socially isolated. However, Beauregard, Basile, & Canonico (2019) ascertains that for those who do, such feelings are important.

These results are supported by existing research which confirms that working from home increases work autonomy by allowing employees to choose their work settings and schedules, increasing work resources that promote intrinsic work motivation (Felstead & Henseke, 2017). This is confirmed in the current study with the results indicating that WFH is positively related to motivation.

Based on Chapter 4 of this research, it can be ascertained that there is a significant relationship between WFH and employee motivation. Based on the discussion above we reject the null hypothesis that there is no relationship between WFH and employee motivation.

5.2.2 Relationship between WFH and Job satisfaction

The second objective was to determine if there is a significant relationship between WFH and job satisfaction. The results indicated that WFH is negative but significantly associated with job satisfaction with the first regression reporting (SD = 0.176 <0.01), and the second regression reported (SD= 0.534 < 0.01). One of the reasons may be because employees are resistant to change (in this case the abrupt change from office to WFH) or unconvinced that WFH will be effective may ultimately result in limitations and performance (Verburg, Bosch-Sijtsema, & Vartiainen, 2013). Another reason for the negative relationship could be that the employees have problems with balancing work, family, and personal obligations, which is unlikely to arise when employees are working from the office balancing. The results of this study are supported by the study results of Rafiq, Javed, Khan, & Ahmed (2012) found that the work environment is negatively associated with employee job satisfaction, while extrinsic rewards are the best motivator to induce job satisfaction. However, as employees continued WFH, job satisfaction increases and levels off. Therefore, the results of the analysis support the previous study (Bailey & Kurland, 2002). Research by Susilo (2020) also confirms that

when employees spend a lot of time remotely, their satisfaction can drop due to a feeling of social and professional isolation.

However, the median regression reports a negative but significant relationship between WFH and job satisfaction, meaning that WFH has negative effects such increase in stress as reported by (Song & Gao, 2020). According to Bellman & Hubler (2020), when an employee's task is too demanding, it also affects their free time and makes it difficult for them to maintain a good WLB, as they may need more time to address the issue while working from home, this issue could become more serious and go unnoticed by the company. The descriptive approach highlighted that most employees positively considered WFH. Further, Purwanto et al. (2020) support that WFH would promote flexible job schedules while reducing the costs of commuting. Conversely, the difficulties with WFH include the fuzzy family/work boundary, disruptions, and staff being financially responsible for all that results from the service. The results are supported by Raziq & Maulabakhsh (2015) who concluded that the work environment plays a crucial role in achieving job satisfaction. Therefore, organizations must ensure that their employees work in a supportive and friendly environment to reach their maximum potential. Therefore, we reject the null hypothesis and go with the alternative; there is a relationship between WFH and job satisfaction.

5.2.2.3. Relationship between Employee Motivation and Job Satisfaction

The third objective was to determine if there is a significant relationship between employee motivation and job satisfaction. The finding in the analysis indicated motivation is significantly related to job satisfaction. Job satisfaction is influenced by motivation, therefore, if motivation is perceived positively by the employees, this may lead to an improvement in job satisfaction (Sultan, 2012). The finding is also in line with research conducted by Ayub & Rafif (2011) who found that Motivation affects Job Satisfaction and motivated employees will experience satisfaction at work. Aryanta, Sitiari & Yasa (2019) confirms that work motivation has a significantly positive effect on job satisfaction, meaning that the higher the employees' work motivation, the higher the employees' job satisfaction. Motivation and job satisfaction have a positive effect on the company's success and an employee who is satisfied with their job will still give everything to the organization (Sultana, et al., 2021). Findings by Gupta & Joshi, (2008) confirmed that productivity in an employee's work is the result of satisfaction

and productivity can be seen as an indicator of satisfaction because employees have to spend most of their time WFH, there is a need for satisfaction at that particular place. When employees agree to have an interest in what they do, that is an indication that their level of motivation is high.

The descriptive results indicate that the employees can still easily communicate with their work colleagues. Findings by Waizenegger et al., (2020) confirmed this through their statement that communication plays a significant and positive role in shaping employee motivation and boosting their level of satisfaction. In their study, Chanana & Sangeeta (2020) found that Communication can help employees understand the information, and develop a sense of well-being at work and the environment, which affects work motivation. Therefore, the hypothesis indicating that there is a significant relationship between employee motivation and job satisfaction is not rejected.

5.2.2.4 The role of technological skills on the relationship between employee motivation and job satisfaction when WFH.

The fourth objective was to determine whether technological skills have an impact on employee motivation and job satisfaction when WFH. The result in the regression indicates that technological skills are significant as far as motivation and job satisfaction are concerned (SD =0.272 < 0.01), and technical skills are significant in job satisfaction (SD= 0.042 <0.01). Meaning that employees require technological skills to be motivated and satisfied while WFH. This finding is not in line with previous studies such as (Khin & Ho, 2018) which confirmed a strong mediation effect from technological skills on the relationship between motivation and job satisfaction when WFH.

On the contrary, research by Aboelmage & Subbaugh (2012) argues that employees may experience techno stress due to the use of new information technologies and the work addiction that makes them unable to disconnect from work-related ICT (computer, phone, etc.) outside of normal work hours. This is also supported by Taradar, Quiang-Tu, & Ragu-Nathan (2007) who found that a lack of technological skills can lead to psychological effects such as insecurity, as well as a drop in confidence and general comfort in using them and such conditions can create feelings of helplessness and annoyance, as well as a dislike or phobia of

computer use. This can reduce motivation and satisfaction, jeopardizing performance and productivity. The interaction of WFH and technological skills also reports a significant relationship. Based on the results, there is a significant role of technological skills in the relationship between motivation and job satisfaction when WFH.

From the table, the regression shows that gender is significant. Results found that women working from home during the pandemic showed greater motivation, which allowed them to be more productive. In their study, Melati & Rizkillah (2022) confirmed that women do their work because they are happy and enjoy doing their work. Divorced employees had greater satisfaction than married and single employees did in the sample. Employees with certificate-level education had less motivation compared to employees with higher levels of education. This is supported by Nimusima & Tumwine (2016) confirm that the lack of staff motivation within an institution leads to under-fulfilment of staff potential and skills as they feel that their efforts are not fairly rewarded. The degree of job satisfaction is widely thought to be influenced by the education level of an employee, and this belief has been supported by several research. Research by (Bilgic, 1998), discovered that education was not a reliable predictor of overall satisfaction. Part-time employees have a greater motivation than permanent employees do, which is a surprising outcome from the analysis.

Compared to employees with 1-5 years of experience, employees with experience between 6 and 20 years have greater motivation. On the other hand, employees with experience of 21-25 years have significantly less motivation. Permanent employees had greater motivation compared to part-time employees. Critically, working from home has a significant relationship with employee motivation. Hence, management could explore mechanisms to allow employees to choose remote work where possible.

Note that age was not included in the regression as it is highly correlated with experience. The regression diagnostics plot in Figure (11) indicates a mild level of multicollinearity. However, the model is significant with the independent variables explaining 77% of the variation in the dependent variable with a significant F-statistic.

5.3 Findings of Research Questions

The findings of the study provided empirical evidence for specific statistical associations between variables. Through the use of hypothesis testing, the research questions posed in Chapter One were resolved; results are reported below.

Research question 1: Is there a relationship between WFH and employee motivation?

The above question was answered using descriptive statistics such as means, variance, and standard deviations.

The Multiple regression results showed that there was a significant relationship between WFH and employee motivation. One can see that as employees continue WFH, motivation increases. Which means that employees enjoyed remote working. This may be linked to Felstead & Henseke(2017) who are of the view that employees can manage their work through flexibility and improve their work-life balance. However, Being away from one's network of colleagues for an extended period could be seen as a loss of resources, and this insecurity is likely to trigger uncomfortable feelings such as anxiety (Al-Riyami, Razzak, Al-Busaidi, & Palalic, 2023).

Research question 2: Is there a relationship between WFH and Job satisfaction?

The results suggested a significant relationship between WFH and Job satisfaction. (Smith, Patmas, & Pitts) Stated that there is a link between remote work and job satisfaction, supporting the notion that working from home increases job satisfaction. In other words, having own workplace at home structurally shapes the space available for working and can impair or increase job satisfaction. The frequency of WFH has a major impact on work-family balance, demonstrating that WFH boosts productivity and job satisfaction while reducing work-family conflict (Gorjifard & Crawford, 2021). However, due to the abrupt switch to WFH, some organizations' personnel lacked the necessary skills and training to use digital tools and technologies, this could lead to low satisfaction because of the pressure to complete duties for work without adequate planning and expertise (Gorjifard & Crawford, 2021).

Research question 3: Is there a relationship between employee motivation and Job satisfaction?

The results suggested that there is a relationship between employee motivation and Job satisfaction in the first regression. Studies by Bhat & Patni (2023) ascertain that motivation has a good and significant influence on job satisfaction, when employees do their job conscientiously, it has a positive impact on employee performance. Hidayat, Supardi, Anwar, & Anggiani (2022) confirmed a significant correlation between employee motivation and job satisfaction. The researchers stated that for this reason, companies should pay close attention to their human resources management programs to efforts to increase employee motivation and job satisfaction, which in turn should lead to improvements in employee performance and the overall performance of the organization.

Research question 4: How do technological skills affect the relationship between employee motivation and job satisfaction when working from home?

The test carried out to find out if there was a role of technological skills in employee motivation and job satisfaction confirmed a significant relationship. The ability to work remotely is not always made possible by technology. While many jobs can be carried out from the comfort of home, others cannot. Khin & Ho (2018) found that employees allowed to work from home were more likely to perceive higher support in attaining work goals, and consequently showed higher goal achievement if they are technologically savvy. Wang, Wang, Zhang, & Ma (2020) posits that employees with high technology skills often feel greater independence, authority, and discretion in determining their task schedules and working methods. According to the researchers, satisfied with technology's efficiency in handling routine tasks, employees can also find meaning in their daily work by avoiding repetitive and tedious tasks. Additionally, technological expertise can increase users' perceived control over work through technology-related access to information, resources, and connections.

6 Summary, Conclusions, Limitations & Recommendations

6.1 Introduction

This research focused on the effect of WFH on employee motivation and job satisfaction due to the COVID-19 pandemic among non-academic staff. The research questions asked whether there was a relationship between WFH and employee motivation, whether there was a relationship between WFH and job satisfaction, and if there was a relationship between employee motivation and job satisfaction, the last question was to determine whether technological skills play any role in the relationship between employee motivation and job satisfaction when employees are WFH. The objectives of the study were generated from these research questions and were presented in Chapter One.

6.2 Summary

The aim of this study was to understand the impact of WFH on job satisfaction and employee engagement as a result of the COVID-19 pandemic among non-academic staff in Gauteng, South Africa. This was accomplished by collecting primary data at a public university. To assess this, a quantitative evaluation method was used. In order to take part in the study, questionnaires were sent to various schools, for example for education, law, and medicine. Respondents also received an anonymous link to the survey via email. The research received responses from 354 participants from different schools in the institution and the data obtained was then analyzed using R Studio.

The information was then used to respond to the questions raised through the literature review on the topic “Working from Home: Impact of COVID-19 on Employee Motivation and Job Satisfaction among Non-Academic Staff at a Public University in South Africa.”, “Is there a relationship between working from home and employee motivation" Is there a relationship between working from home and job satisfaction" "Is there a relationship between employee motivation and job satisfaction" "How do technological skills affect the relationship between employee motivation and job satisfaction when working from home". These results were then compared with findings from previous literature.

The research findings revealed that there is significant relationships between WFH and employee motivation, WFH and Job satisfaction, Employee motivation and job satisfaction,

and lastly the interaction of technological skills in the relationship between employee motivation and job satisfaction when WFH. The result found that there is a significant relationship between WFH and technological skills, and technologically savvy employees are more motivated when WFH. These results are found in previous research.

6.3 Conclusion

The findings of this research study conclude that WFH has a significant effect on employee motivation. WFH also has a significant impact on job satisfaction. Technologically savvy employees are motivated but there is an indirect impact of technological skills on job satisfaction when WFH. However, if most employees do not have a practical understanding of technology, there will be a negative effect between motivation and job satisfaction.

6.4 Limitations

These are aspects that researchers must consider throughout their studies. One of the difficulties was the long process of gaining permission from the university to conduct the study. Another setback was the availability of non-academic staff, particularly during the time of conducting the research study. Another limitation was that there was limited literature on the non-academic staff, therefore alternative literature had to be used. The questionnaire was distributed both face-to-face and online basis, this affected the pace of data collection because most employees were alternating work between home and office. In addition, most respondents avoided the online survey, and therefore, the researcher had to plan more time to distribute the questionnaire in person. Another limitation was the time frame for data collection, as the semester was almost ending. The study was limited to a review of a particular organization's impression of the motivation and satisfaction of its employees when they were WFH. Future studies should focus on expanding the sample to include other non-academic staff from different Gauteng institutions to learn how they handled the situation.

6.5 Implications

The research study could be applied to future practice. Predictive models developed from a deeper understanding of the teleworker can help organizations better restructure their management and HR practices. Employee motivation can be increased by reusing and improving the results of the regression model from this study. Institutions that can facilitate the use of technical skills especially with remote workers, are likely to get more out of the average worker. This study found that the majority of staff agreed that the institution is critical to their professional development. Their motivation and level of satisfaction can increase with more training and career development opportunities, which can support their productivity and maintain institutional standards.

6.6 Recommendations

The institution needs to keep training both skilled and unskilled so that they are up to date with technology. As such, some workers may not be motivated when WFH due to technological sophistication besides isolation as indicated by Rysavy & Michalak (2020).

1. The university should provide continuous training to its employees. It should also alternate between virtual and face-to-face meetings with its employees so that they are used to the new system.
2. Provide the necessary equipment for employees working from home such as computers, internet rather than leaving them to buy their own. Short-term training for those who with fewer technological skills are necessary so that they do not feel left behind by their colleagues.
3. The institution and supporting professionals need to be aware of each employee's needs or preferences when reorganizing work schedules to support work-family balance.
4. They also need to develop methods to track employee performance and well-being about any changes in work schedules and identify the policies, practices, or supports necessary to make the change successfully.

Table 16: Research Planning

Gantt chart

	March21	May21	Dec 22	Jan-June 22	Sept 22	Nov 22	Feb 28
Write proposal							
Finalize proposal							
Gain approval							
Gather data							
Do data analysis							
Write report							
Finalize report							

Table 17: Consistency matrix

Aims of research	Literature Review	Hypothesis	Source of data	Type of data	Analysis
To show that there is a relationship between working from home and motivation.	Bailey & Kurland (2002) Waizenegger et., al (2020) Nakrosiene et al.,(2019).	**Hypothesis 1** **H_0:** There is no significant and positive relationship between working from home and motivation. H_a: There is a significant and positive relationship between working from home and motivation.	23-30	Ordinal	Cronbach's Alpha Multiple regression Analysis Median regression analysis
To show that there is a relationship between working from home and job satisfaction	Bassett-Jones & LIoyd (2005). Rotter (1975)	**Hypothesis 2** H_0: There is no significant and positive relationship between working from home and job satisfaction. H_a: There is a significant relationship between working from home and job satisfaction.	8-30	Ordinal	Cronbach's Alpha Multiple Regression Median regression analysis

To show that there is a relationship between employee motivation and Job satisfaction.	Bailey & Kurland (2002) Waizenegger et., al (2020) Nakrosiene et al.,(2019).	**Hypothesis 3** **H_0:** There is no significant relationship between motivation and Job Satisfaction. H_a: there is a significant relationship between motivation and Job Satisfaction.	1-11	Ordinal	Cronbach's Alpha Multiple Regression analysis Median regression analysis
To show that technological skills affect motivation and job satisfaction when WFH		**Hypothesis 4** **H_0:** technological skills do not have any effect on motivation and job satisfaction. H_a: technological skills have a significant effect on motivation and job satisfaction.			Cronbach's Alpha Multiple and Median regression analysis

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APPENDICES

Appendix A: Research Instrument

Working from home: Impact of COVID-19 on Employee Motivation and Job Satisfaction among Non-Academic Staff at a Public University in South Africa.

Please answer the following statements by placing X in the most appropriate box.

1= strongly disagree, 2= Disagree.3 = somewhat disagree, 4= Neutral, 5= somewhat agree, 6= agree, 7= strongly agree.

1. Motivation Items/questions (Fourie, 1989)

Questions	Strongly disagree	Disagree	Somewhat disagree	neutral	Somewhat agree	agree	Strongly agree
1. My work assignment was always clearly explained to me.							
2. There was enough time to go through my work.							
3. I had Comfortable working hours							
4. I was satisfied with my career progress in this institution.							
5. The equipment and tools for work were efficient.							
6. Adequate working area to work efficiently.							
7. I took interest in what I do.							
8. There was the provision of lighting and ventilation facilities at the workplace.							

9. My working environment was comfortable							

2. Job satisfaction Items/questions (cook et al, 1981)

	Strongly disagree	Disagree	Somewhat disagree	neutral	Somewhat agree	agree	Strongly agree
10. Each day of my work seemed like it would never end.							
11. Requirements for my working activities disturbed my family life							
12. The duration of my working life made it difficult to fulfil my family responsibilities.							
13. My private life affected my professional tasks negatively.							
14. This institution has of great importance to me.							
15. I had adequate opportunities to develop my professional skills							
16. I feel I can easily communicate with members from all levels.							
17. The stress of working duties never made it difficult to fulfil my private tasks.							
18. I did not to postpone my professional tasks because I have too many family responsibilities.							

3. WFH questions (Susilo, 2020)

	Strongly disagree	Disagree	Somewhat disagree	neutral	Somewhat agree	Agree	Strongly agree
1. My work objectives were clear each day/week.							
2. I had all the equipment needed to complete my work.							
3. I was as productive at home, as I am at the office.							
4. I feel like working from home can be improved.							
5. I found that working from home hinders my career growth.							
6. I found online meetings to be as effective as face-to-face meetings.							
7. The technology I used for online work was reliable.							
8. I found myself struggling to focus when working from home.							
9. I found that working from home helped me save money.							
10. I missed social interactions while working from home.							
11. I would rather continue working from home after the outbreak.							

4. Technological skills questions (Yu,2020)

.	Strongly disagree	Disagree	Somewhat disagree	neutral	Somewhat agree	Agree	Strongly agree
1 I found communication with other employees problematic.							
2 I found access to work-related information not complicated.							
3 I never missed important information because of technology.							
4 Communication tools (e.g. technology) did not hinder my work.							
5 When I encountered difficulties, people on the digital platform would help me overcome the problem							

5. Demographic and Background Information

1. What is your gender?

Male	Female	Prefer not to say

2. What is your age group?

18-25	26-35	36-45	46-55	56-65	Prefer not to say

3. Marital status

Single (living alone)	Married or living with partner	Living with parents	Divorced	Prefer not to say

4. What is your highest level of education?

Primary school	High school	Diploma	Degree	Postgraduate	

5. Category of employment

Permanent	Part-time

6. Year of work experience

1-5	6-10	11-15	16-20	21-25	Prefer not to say

Appendix B:

Participant Information Sheet



30-08-2022

Dear Sir / Madam or Good day or (similar)

My name is Dorothy Miruka I am a Masters student in the faculty of Law, Commerce and Management at the University of the Witwatersrand, Johannesburg. My supervisor is Ms Aretha Mazingi. I am conducting a research study about non-academic staff employees. The study title is Working from Home: Impact of COVID-19 on Employee Motivation and Job Satisfaction among Non-Academic Staff at a Public University in South Africa.

I am inviting you to take part in an interview by answering a questionnaire. If you decide to take part, your participation in this research study will last about 15-20 minutes. The interview/research activity will take place at your workplace at your preferred time.

The interview will be confidential and anonymous. When I share the results of the research study, I will not include your name or anything else that could identify you. With your permission, other researchers may use the data collected from this research study, but your name and any personal information will not be used or passed on.

If you decide to take part in the research study, it should be because you want to volunteer. You do not have to take part. You can stop being in the study at any time. You do not have to answer any questions if you do not want to. You will not get any direct benefits if you choose to join the research study. You will not lose any services, benefits or rights you would normally have if you decide not to join. Taking part in the research study will not cost you anything. You will not be paid for being in this research study.

The risks for this research study are no more than what happens in everyday life.

This research study will be written up as a research report. The report will be available on the university library website. If you would like to receive a summary of this report, I will be happy to send it to you.

If you have any questions during or afterwards about this research study, feel free to contact me or my supervisor on the details listed below. If you have any concerns or complaints about the ethical procedures of this research study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0) 11 717 1408, email hrecnon-medical@wits.ac.za.

Yours sincerely,
Dorothy Miruka

Wits email: 1103536@students.wits.ac.za

Supervisor: Aretha Mazingi
Wits email: Aretha.mazingi@wits.ac.za
Wits phone number 0117178087

Appendix C:

Consent Form



Working from home: Impact of COVID-19 on Employee Motivation and Job Satisfaction among Non-Academic Staff at a Public University in South Africa.

Dorothy Miruka

I, …….., agree to participate in this research project.

I agree to the following:

(Please circle the relevant options below)

The research study was explained to me. I understand what this study is about.	YES	NO
I understand that I can volunteer to take part in the study	YES	NO
I agree that direct quotations from my interview/focus group/other activity may be used by the researcher in their research report/ manuscript/book chapter	YES	NO
I agree that my participation will remain anonymous (my name will not be used by the researcher in their research report/manuscript/book chapter)	YES	NO

I agree that other researchers may use the information I provide in my interview/focus group/other activity (depending on their own ethics clearance being obtained) but my name and any personal information will not be used or passed on	YES	NO

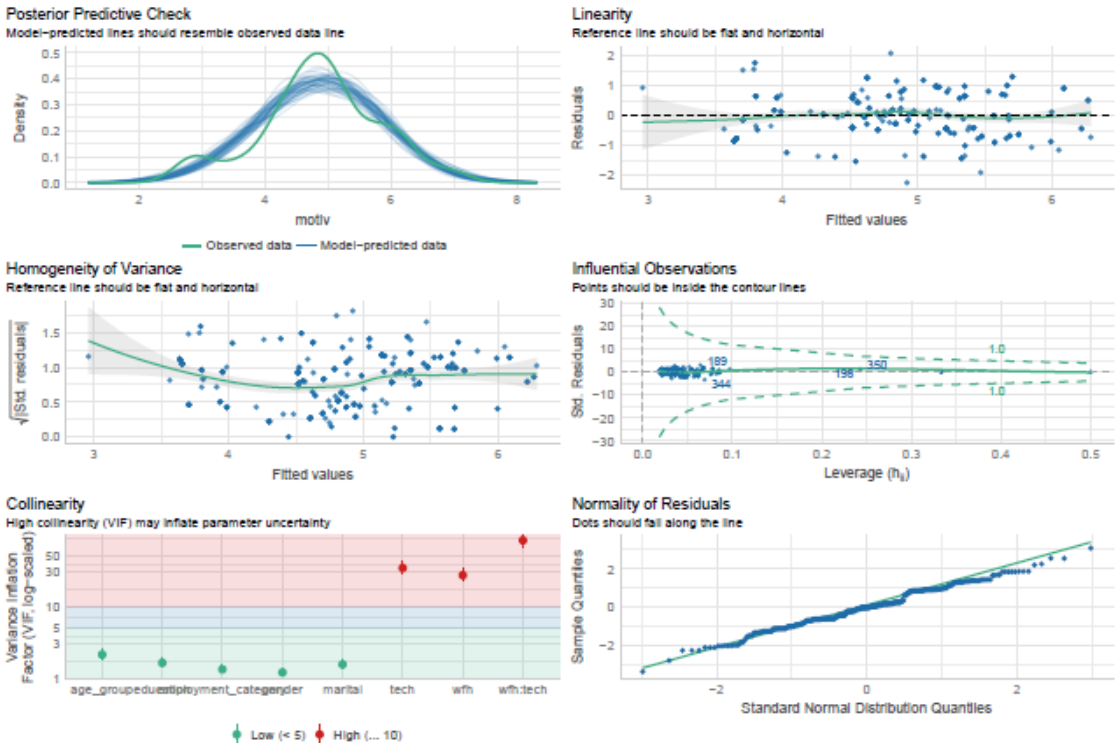
…… (signature)
…… (name of participant)
…… (date)

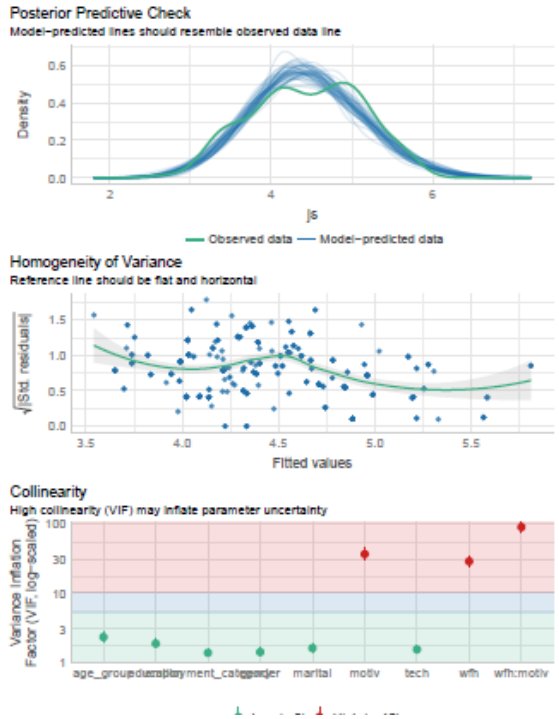
…… (signature)
…… (name of researcher/person seeking consent)
…30-08-2022…… (date)

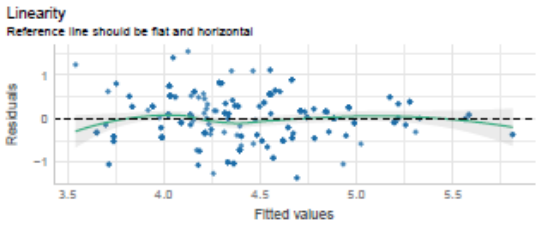
,

Appendix D

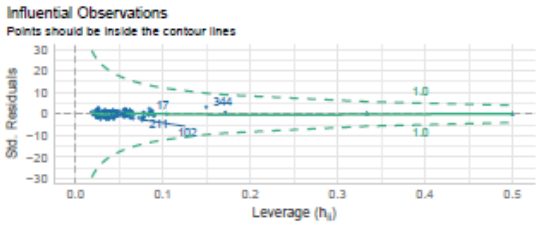
Figure 11: Correlation between indicators



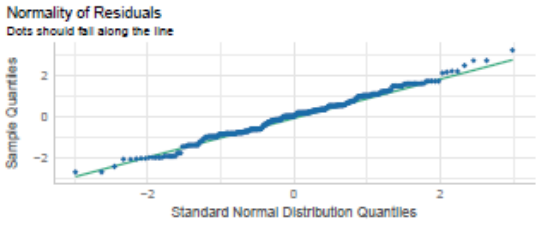

Posterior Predictive Check
Model-predicted lines should resemble observed data line
Density
js
Observed data
Model-predicted data

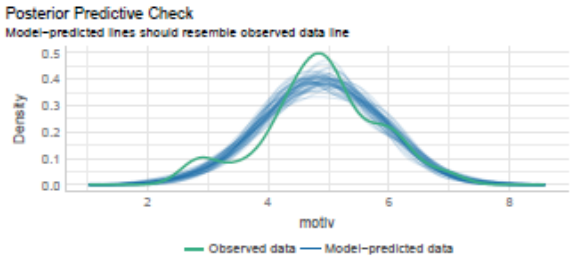

Linearity
Reference line should be flat and horizontal
Residuals
Fitted values

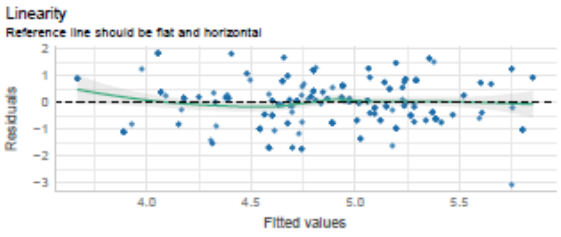
Homogeneity of Variance
Reference line should be flat and horizontal
√|Std. residuals|
Fitted values

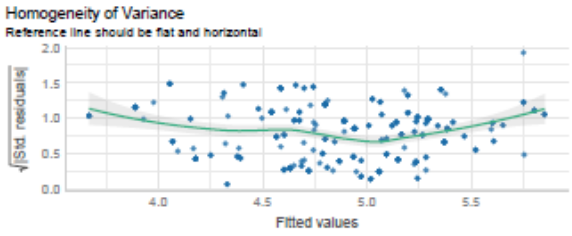

Influential Observations
Points should be inside the contour lines
Std. Residuals
Leverage (h_ii)

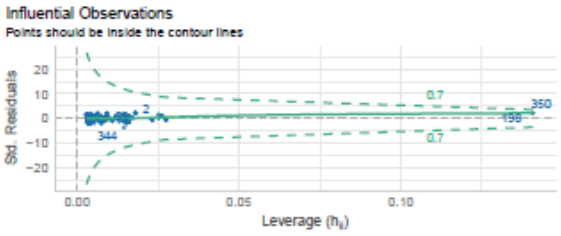
Collinearity
High collinearity (VIF) may inflate parameter uncertainty
Variance Inflation Factor (VIF; log-scaled)
marital
motiv
tech
wfh
wfh:motiv

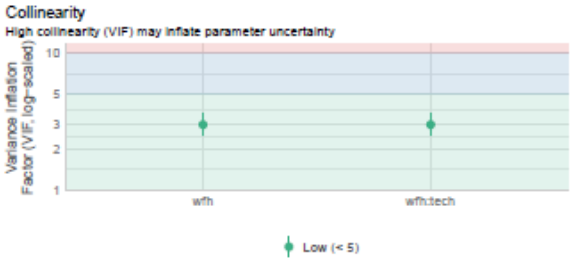

Normality of Residuals
Dots should fall along the line
Sample Quantiles
Standard Normal Distribution Quantiles

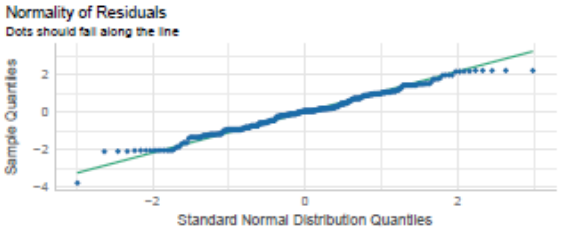

Posterior Predictive Check
Model-predicted lines should resemble observed data line
Density
motiv
Observed data
Model-predicted data

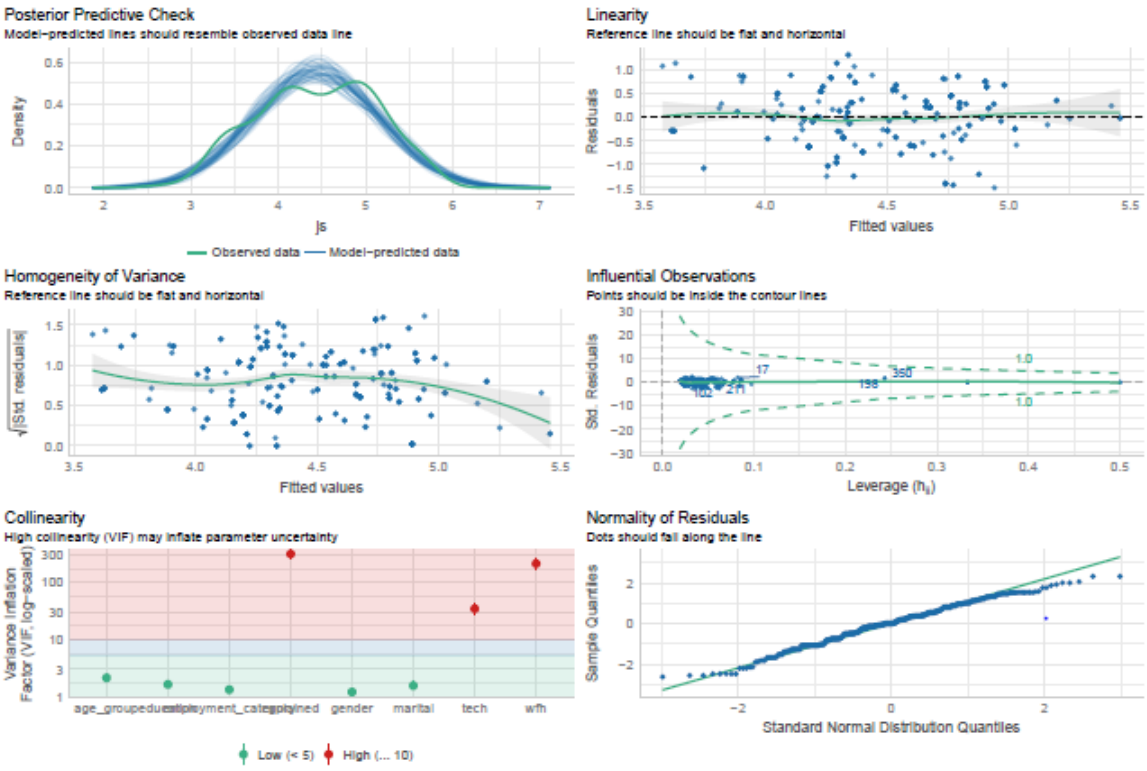

Linearity
Reference line should be flat and horizontal
Residuals
Fitted values


Homogeneity of Variance
Reference line should be flat and horizontal
√|Std. residuals|
Fitted values


Influential Observations
Points should be inside the contour lines
Std. Residuals
Leverage (h_ii)


Collinearity
High collinearity (VIF) may inflate parameter uncertainty
Variance Inflation Factor (VIF; log-scaled)
wfh
wfh:tech
Low (< 5)


Normality of Residuals
Dots should fall along the line
Sample Quantiles
Standard Normal Distribution Quantiles


Posterior Predictive Check
Model-predicted lines should resemble observed data line
Density
js
Observed data
Model-predicted data
Linearity
Reference line should be flat and horizontal
Residuals
Fitted values
Homogeneity of Variance
Reference line should be flat and horizontal
√|Std. residuals|
Fitted values
Influential Observations
Points should be inside the contour lines
Std. Residuals
Leverage (h_ii)
Collinearity
High collinearity (VIF) may inflate parameter uncertainty
Variance Inflation Factor (VIF, log-scaled)
age_group
employment_category
gender
marital
tech
wfh
Low (< 5)
High (... 10)
Normality of Residuals
Dots should fall along the line
Sample Quantiles
Standard Normal Distribution Quantiles