



**A COMPARISON OF EMPLOYEE PRODUCTIVITY LEVELS BETWEEN  
TRADITIONAL AND VIRTUAL OFFICES AT TERTIARY INSTITUTIONS IN THE  
WESTERN CAPE.**

**by**

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## **DECLARATION**

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## **ABSTRACT**

Throughout history, from the industrial age to the modern day, technological advancements and ergonomics have been changing the concept of offices. The Covid 19 pandemic has furthermore pivoted every aspect of our work and life, forcing organisations to adapt to various technological advancements, including virtual offices. In response to our local containment policies to mitigate the spread of Covid 19, institutions encouraged their employees to work from home. According to various studies, this had many advantages, including flexibility, cost savings and increased productivity. Employee productivity is one of the key components of any company's profitability and long-term success. If employees complete their tasks in good time, it means they have more time to do other work, which increases output and, therefore, saves money.

Most studies have focused on the advantages that come with virtual offices. However, it might not suit all employees. In this study, the researcher focuses on administrators who worked from home during the Covid 19 pandemic of 2020-2022 at the Cape Peninsula University of Technology. This study focuses on the impact of office choice on employee productivity levels by highlighting the differences and similarities between the productivity levels of employees working in virtual offices versus those who are working in traditional offices. This will provide vital understanding as to the value of switching to permanent virtual offices versus returning to the traditional office with specific focus on whether these two scenarios improve employee productivity. The researcher used a descriptive research design because of its ability to allow the use of multi-methodologies that will allow for a broad understanding of the subject. This was accompanied by the choice of mixed research procedures, which are extremely compatible with the simultaneous use of qualitative and quantitative research methodologies.

The findings indicated that, although working from home has significant benefits, employees still feel it is confusing, depressing and demotivating and prefer being micro-managed while working in a physical office with the rest of the team.

Recommendations are for managers to invest in understanding in which environments their employees feel more motivated, as motivation plays a significant role in employee productivity.

**KEY WORDS:** virtual office, traditional office, technology, employee productivity, employee motivation, ergonomics, and leadership styles.

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## **DEDICATION**

This thesis is dedicated to my late grandmother, Cynthia Nondyebo Ntanjana, who passed on 30 November 2020. May her lovely precious soul continue resting in peace. She was and will forever be the main source of my existence, and I am who I am and where I am because of the values and upbringing she has given me.

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## **CHAPTER 1**

### **INTRODUCTION TO THE STUDY**

#### **1.1 Introduction**

The concept of the term office is changing in general, and this change has been sped up by the COVID-19 pandemic, which has resulted in large-scale lockdowns, forcing millions of workers to carry out their tasks in home environments that may be unsuitable for sustained office work (Ofek, Grubert, Pahud, Phillips & Krisensson, 2020:456). This challenge has accelerated the use of the fourth industrial revolution (4IR) technologies and created a complete change in how people live, learn and work. This furthermore introduced an emerging shift of traditional to virtual offices for survival and efficiency in industries.

In addition, during the 21st century, communication and social networking have become most crucial for individuals and industries to collaborate, promote, and communicate between partners, customers, or departments (Visansakon & Vilasmonqkolchai, 2018:77). With the busy society at the moment, several office workers and students find difficulties in balancing their work and life and therefore try to balance them while working instead of taking holidays, which leads to the need for flexibility of working hours, creating a high demand for the transition from traditional to virtual offices which introduces a solution to increase employees productivity as it will enable them to manage their own working time to be more productive when at work.

However, Zhang (2016:40) emphasises that more and more companies are experiencing the challenges and problems of virtual offices in recent years. He further makes an example of Yahoo as one of the most famous companies, which has a work-from-home program in which companies see both the positive and negative sides of virtual offices and their suitability during the 21st century.

## **1.2 BACKGROUND / LITERATURE REVIEWED**

### **1.2.1 What are the reasons behind the transition from traditional to virtual offices?**

Modern-day technology connects people and businesses rapidly, accurately and efficiently. The virtual office has gained advantages over the traditional office through these technologies. Higher productivity is one of the most crucial objectives businesses strive for: flexibility, comfortable environment, no commute, diversity of talent, less expensive schedules, increased morale, fewer attendance issues, 24hr. Accessibility, freedom, and outsourcing resources for specific projects (Ayres & Voudouris, 2014:16-28 ). Correspondingly, Zang (2016:40) adds that, due to technological changes and social and economic shifts, many businesses use various technologies to manage work challenges. In 1980, Toffler predicted that work could be accomplished with the home as a centre of society and technology as the dominion of a virtual office.

Correspondingly, Ofeke et al. (2020:1-7) state that more employees work away from traditional office buildings or on the move. The authors further explain that, while this transition can have many positive effects, such as allowing for flexible working hours, reducing time spent in traffic, and allowing workers to live in remote locations, it does of necessity require workers to be capable of performing productively in work environments that may be less than ideal. However, the authors also argue that the critical difference today is the variety of devices that consumers utilise. In the past, work was done on stationary desktops or comparatively few and limited mobile laptops that allowed for a few hours of work but with restricted input and fixed, smaller screens.

### **1.2.2 What is the difference between traditional and virtual offices?**

According to Long and Richter (2019:450), the term "traditional office" implies that each employee has their workspace and that, with the assistance of an ergonomics expert, can be improved for comfort by modifying the workspace or by installing additional equipment such as document holders and footrests. On the other hand, according to Kojo and Nenonen (2017:164-175), the virtual office does

not necessarily have temporal constraints because Information Communication Technology services (ICT) allow employees to work whenever and wherever they choose, including outside of office hours.

According to Jacukowicz and Merez-Kot (2020:21-33), traditional office personnel use the Internet for hunting for information and sending documents across departments rather than communicating online, particularly with clients. In contrast, virtual offices were considerably different; the working location could be anywhere (for example, at home, a coffee shop, or a shared area), giving employees more flexibility (Visansakon & Vilasmonkolchai, 2018:24). Messenger and Gschwind, (2016:195-208) furthermore define virtual office as the ability to function anywhere and anytime in or outside of an office, during and outside office hours by utilising ICTs.

### **1.2.3 Post and cons of traditional and virtual offices**

According to Visansakon and Vilasmonkolchai (2018:26), the traditional office tries too much to make the office space a friendly environment, using interior decoration and furnishings, based on the understanding that attractive, fully furnished offices have advantages for work and are conducive to concentration and productivity. Moreover, the traditional office allows for socialising outside the home and is better for developing bonds within the team.

However, the virtual office gives a chance to achieve work-life balance. According to Zhang (2016:40), a virtual office is an ideal process for increasing employees' well-being and productivity in their careers. Furthermore, a virtual office environment may boost productivity and pleasure in employees' lives, which is the main benefit for the organisation in terms of reducing employee turnover and increasing production and revenues for the company. According to Jacukowicz and Merez-Kot (2020:21-33), a virtual office is essentially a replicated corporate environment that gives users access to collaborative work-related skills that can be used to change how work is done in an organisation. Furthermore, Atayero, Chijioke-Keme, and Ogunjobi (2017:147) state that the "virtual office" concept, if appropriate, traced to Ralph Gregory, the founder of the company Intelligence



Office, which was initially established in the 1990s, shows that the employee was eager to spend a lot more time at home and less time at work, but still be as skilled and productive as when at work, which led to the creation of a new company concept that would allow them to take advantage of the resources provided at their workplace.

However, Nguyen (2015:309-319) states that according to the interviews that he conducted regarding work from home, most responses outlined that the benefits of virtual offices are as follows: Saving time and money; Flexible time and workplace, reducing distractions at work; Reducing pollution and it is a less stressful working environment. Nguyen (2015:309-319) furthermore states that according to his findings, the following concerns were raised regarding working at home: home office set-up cost, office equipment and supplies, out of sight, out of mind and low communication with co-workers. According to Atayero, Chijioke-Keme, and Ogunjobi (2014:5018-5027), Virtual offices are essentially described as rentable office space that enterprises who require such a service subscribe for with associated perks such as the opportunity to work from home with the presence of effective and efficient internet technology that is paid for as part of services provided by the virtual office provider company, as well as the availability of a business address with which to conduct business and email services.

#### **1.2.4 Effectiveness and suitability of the virtual office in the 21st century**

Technology has become a significant part of humans' personal or career lives. In the 21st century, communication and social networking have become crucial for industries to collaborate, promote, and communicate between partners, customers, or departments. According to Fatima and Santiana (2017:125), The world has changed in all facets of life in the twenty-first century, and the development of technology encourages people to change their habits to the point where it can be said that people can live without the assistance of technology, which could also aid in communication, transportation, and education. Furthermore, Kojo and Nenonen (2017:172) agree and highlight that a virtual office

is linked with a physical location, including the workplace home, trains, flights, clients, offices, co-working spaces, cafes, and public parks.

According to Messenger and Gschwind (2016:195-208), information and communication technology like tablet computers and smartphone devices have updated our everyday work and life in its general form in the twenty-first century. They go on to state that, on the other hand, because information and communication technologies allow everyone to connect with their relatives continuously and loved ones, as well as work colleagues and instructors, paid workers are becoming progressively disruptive into space and time that otherwise would have been reserved for personal life.

### **1.2.5 Virtual work and virtual teams**

Advances in information and communication technology have enabled employees to engage across time and place, leading to various virtual work arrangements that assist firms in meeting their strategic goals and objectives. Organisations, for example, are increasingly offering telecommuting, also known as telework, as a means of creating work/life balance for employees, lowering real estate costs, and attracting and retaining high-quality talent (Raghuram, Hill, Gibbs & Maruping, 2019:308-341). It involves individuals working from locations away from their primary offices, such as a home, client office, or shared office space, also known as a virtual office. The implementation of another virtual work arrangement is also on the rise in the form of virtual teams, where members in dispersed locations collaborate via electronic means Gilson, Maynard, Jones Young, Vartiainen, and Hakonen (2015:1313-1337). Virtual teams enable firms to harness high-quality talent from remote locations while remaining highly responsive to client needs (Kirkman, Gibson, & Kim, 2012:48).

However, according to Nydegger and Nydegger (2010:69), most firms nowadays are attempting to find modern and creative ways to become more efficient and productive, and, unsurprisingly, these frequently include the use of innovation, the presentation of modern communications, and information advances has significantly influenced the way most of the world's businesses work. Besides, they

claim that as organisations alter, so do how they communicate with one another and execute their work. As a result, the working environment of the twenty-first century is endlessly diverse from that of the past century.

Furthermore, according to Nydegger and Nydegger (2010:69), one of the latest innovations is the utilisation of "virtual teams," For many years, we have witnessed the use of conference calls, teleconferencing, and working from home to help workers finish their work more successfully, productively, and kindly. They emphasise that virtual groups go past these accomplishments since it is presently conceivable for groups not co-located to collaborate on projects. Individuals can collaborate on projects from distinctive destinations at various times and from other time zones. In expansion, the creators also state that retaining any group communicating effectively and working productively together successfully is a challenge. However, with virtual groups, these issues are more of a concern since virtual team individuals get that it is fundamental and imperative for individuals in organisations to keep in touch on a customary premise. In most organisations, that is getting progressively tricky, even with strides in communicative aptitudes.

According to Zigurs (2003:32) and Makarius and Larson (2017:48), virtual groups are bunches of individuals physically or organizationally isolated but connected by data technology to attain particular objectives. Although face-to-face groups contrast with virtual groups, a couple of analysts characterised the degree of virtuality on distinctive scales (Griffith, Sawyer, & Neale, 2003:142) and Makarius Larson, 2004). (2017:132). Furthermore, Makarius and Larson (2017) claimed that as technology advances, the trend of virtual teams as a department of an organisation has increased.

Nydegger and Nydegger (2010:72) further by citing an example of most people who hold some of the following misconceptions regarding virtual teams:

- Virtual groups do not require direction because members frequently work alone and do not demand much from leaders, supervisors, or managers.

- It is inconceivably simple for virtual group individuals to maintain a strategic distance from work and "cover-up." Virtual team individuals cannot be trusted to operate unless they are legitimately supervised.
- Since you cannot oversee from a separate, directors cannot have much of an impact on the execution of virtual teams.
- Since people do not work together in virtual groups, belief is not as critical, and it is troublesome to form a belief in these sorts of bunches from the beginning.
- Virtual teams do not need to communicate with one another and prefer to interact solely through CMC technology (Nydegger, 2009) and (Nydegger & Nydegger, 2009, 2010:72).

According to Nydegger and Nydegger (2010:70), opportunities for increased productivity frequently encourage multiple enterprises to examine and implement virtual teamwork. Whatever the case may be contends that there are numerous great trade reasons for utilising virtual teams because of the following benefits:

- Reduced real estate costs.
- high rise in Productivity
- Higher earnings
- Better client service
- Ability to access global markets
- Environmental advantages
- Furthermore, Nydegger and Nydegger (2010:74) states that other benefits of virtual teams include:
  - Virtual offices spare time.
  - Virtual offices spare resources.
  - They make it less demanding to get to specialists and other sources of knowledge.
  - Team creation is not subordinate to the area of the members.
  - Regardless of the area, business ventures can broaden their labour sources and appoint/hire the best employees.

- Hiring and utilising individuals with debilitating conditions gets to be more accessible. As a result, employees discover it simpler to strike a healthy work/life balance.
- Virtual offices are less complicated for faculty to go from one venture to another as necessary.
- It is much less demanding for representatives to contribute to more than one group simultaneously.
- Effective group communications and feedback can be discharged online and accessed at any time and from any area, permitting more viable and productive usage of group assets (Nydegger & Nydegger 2010:74).
- Employees can be enlisted based on their competencies instead of their physical area
- Commuting time is reduced.
- Travel costs are reduced.

Virtual offices' effectiveness and applicability in higher learning institutions are demonstrated by a four-wall classroom that places teachers as the primary information providers. In today's world, today's technology plays an essential role in influencing and changing the learning process of pupils. Students are not the only ones who can learn. Technology assists teachers in developing novel teaching strategies by delivering engaging activities that help students improve their skills (Fatimah & Santiana, 2017:33). Furthermore, according to Mims (2017:42), virtual work is growing increasingly common around the world. Organisations are embracing the concept of virtual wands because they see potential productivity benefits and cost savings.

Educational institutions and research organisations are getting to be progressively corporate in their workspace plan and format (Atayero, Chijioke-Keme & Ogunjobi 2017:72). In expansion Atayero, Chijioke-Keme and Ogunjobi (2017:63). Furthermore, states that there is even a request for effortlessly accessible data and advanced strategies of communication. As a result, data and communication

advances are being made accessible for utilising in an assortment of areas of endeavour, a few of which incorporate virtual offices.

Furthermore, there is an ongoing demand for easily accessible data and sophisticated communication methods, and as a result, technological innovations are being made publicly available for use in various fields of endeavour, including virtual offices.

According to Fatimah and Santiana (2017:125), technology in education is rapidly evolving, supplying students with more realistic and relevant learning experiences that engage their effort and behaviour by delivering a more pleasant and effective learning environment. In addition, the usage of technology currently also allows pupils to perform collaborative work.

### **1.2.6 Employee productivity**

Technology has permitted significant increases in human productivity – computers, spreadsheets, email, and other developments have made it possible for a knowledge worker to ostensibly deliver more in a day than was previously possible in a year. Therefore, it is tempting to believe that overall Productivity must increase if people can do their jobs better and faster (Syverson (2011:326)

#### ***1.2.6.1 The concept of productivity***

Syverson (2011:326) defines productivity as production efficiency: how much output is obtained from a given set of inputs. As a result, it is commonly stated as an output-input ratio. Units of output produced per unit of a particular input are reflected in single-factor productivity measurements. Employee productivity is the most typical level of this type. However, capital or even material productivity indicators are used on occasion. The increased use of the excluded inputs affects single-digit productivity levels. Even though two manufacturers use the same production technology, they may have substantially different labour productivity levels if one uses capital considerably more purposefully, for example, because they face different figure costs.

Furthermore, Sickles and Zelenyuk (2019:74) refer to productivity as a primary component within the production execution of ventures and countries in a more significant setting. Expending the national production can boost the living standards, since increased real pay improves the capacity of individuals to obtain items and manage or maintain them, value recreation, making advances in lodging and contribute to social and natural programs.

According to Sharma and Sharma (2014:142), increased productivity leads to economic development, higher profitability, and social improvement. Employees can only benefit from higher Productivity by receiving higher wages/salaries, better working conditions, and more business prospects. Furthermore, the authors note that improving staff productivity has been one of the essential goals for many firms. Typically, Higher productivity levels, for example, contribute to beneficial economic expansion, expanded benefit, and far superior societal advancement.

According to Hanaysha (2016:61-70), one of the essential concerns that most organisations are currently managing is the need to boost worker productivity. Worker productivity may be a worker's or group of workers' productivity' 'Productivity can be measured regarding an employee's output at a particular time. Regularly, a worker's Productivity will be measured in connection to his or her peers. Furthermore, according to Nollman (2013:45), current studies have focussed on one or two ways to measure efficiency, and because many different strategies are used, comparing the results can be tricky, even though there is a compelling and clearly defined way to assess Productivity in general.

According to Sharma and Sharma (2014:78), labour productivity is determined by the overall amount of time an employee is physically present at work and the degree to which they are "mentally present" or productively working while present at work. Therefore, such concerns should be addressed by businesses to ensure high specialist Productivity.

### **1.3 The purpose of this Study.**

This study intends to draw special attention to the impact of office choice on employee productivity levels and illuminate the subtle differences or unexpected similarities between employees working in virtual and traditional offices.

### **1.4 Problem statement**

The work environment and the current ethics and practices result from many years of development since humanity started producing. The traditional methods have therefore been tested and perfected to the extent that they have become the norm by which business operations take place. The industrial revolution added to the impetus and allowed for certain modifications, but the human element remains at the centre of all productivity as we know it. Consequently, structures and traditional buildings have been used as business places allowing for measurable, controllable, easy-to-supervise operations. We do not also forget that leadership theories refer to models that are focused on the human being at the different levels of operations. As the world moves towards the Fourth Industrial Revolution, it is evident that most of the “traditional” operational methods may change because of technological advances. The arrival of Covid seems to have accelerated the process of “performing away” from each other and thereby using virtual methods for operations.

### **1.5 Research objective**

The problem which will be researched will be expected to provide findings that might be the basis for further research into the impact of office choice on employee productivity levels of administrators of the institution under investigation.

The following are the objectives of this study:

Primary objective: To determine if there are any differences between working from home or working from the office in terms of Productivity or secondary objectives.

- To identify the impact of working alone from home on Productivity expected by the line manager



- To identify if working from the office produces different levels of productivity from those experienced when working from home
- To determine employee-self-evaluation of performance levels working from home or working from the office
- To evaluate if the work environment does impact employee performance in terms of regular duties and performance
- Identify requirements for a virtual working environment to be as productive as the known Productivity from the office environment.

## **1.6 Research Question**

Research questions are essentially an interpretation of the research objectives in the form of questions seeking to address the study gap. Research questions are indispensable in research because they inform what the literature review should focus on and help create the development of the research instrument – the questionnaire. The research question in this study is divided into two parts: the main research question and the sub-research questions.

### **1.6.1 The main research questions.**

The main research question is derived from the primary research objective, as the problem statement emanates from the literature review. The main research questionnaire directs the theme for the research questionnaire. The main research question for this study is what is the impact of office choice on employee productivity levels?

### **1.6.2 Sub-research questions**

These are an expansion / or components of the leading research question to allow for a broad response to the question under study. The sub-questions for this study are as follows:

- What impact does working alone at home without the presence of the line manager have on employee productivity levels?

- What are the differences in socialisation between working with colleagues from the office and virtually?
- What are the perceived advantages of working from the office in the university compared to working from home?
- What are the perceived disadvantages of doing university admin work from home compared to working from home?
- What are the requirements for virtual admin work at the same efficiency as working from the office?

### **1.7 Research Design and Research Methodology**

The research design is the road map that must be followed during the research process and specifies what should be done or the steps that must be taken. The researcher opted to use a descriptive research design because it allows for the use of multi-methodologies that will allow for a broad understanding of the subject. This was accompanied by adopting mixed research procedures, which are highly compatible with the simultaneous use of qualitative and quantitative research methodologies. A mixed research approach allows the researcher to delve into the breadth and depth of the topic under examination.

### **1.8 Target Population**

The definition of the target population shows the geographical location and the entire collection of persons from which the researcher seeks data, and a populace is the entire collection of concerns that the researcher must investigate using quantitative methodologies (Buglear, 2005). Employees of the University of Technology in Western Cape, South Africa, are the researchers.

### **1.9 Sample**

According to Buglear (2005), a sample is a representative sample from a target population. Collis and Hussey (2009:209) and Pascoe (2014) define a sample as a subset of respondents or an extract from a population of interest that remains representative of the target community. The targeted sample in this study is 100

employees in a department within a faculty of Business and Management Science.

#### Sampling method

Purposive sampling will be used in this study. The researcher will choose which parts to sample. Because each component corresponds to the demographic variables of the study, this purposive sampling ensures that every component of the sample will contribute to the analysis. This study will also use convenience sampling, possibly the most straightforward sampling methodology, because respondents are chosen merely based on their accessibility and willingness to engage. The Cape Peninsular University, technological convenience sampling approach will be utilised to obtain data from the total population.

### **1.10 Data Collection and Instruments**

#### **1.10.1 Data collection**

Kabir (2016) defines data collection as the systematic acquisition and measurement of data on variables of interest to answer proposed research questions, test hypotheses, and determine results. Furthermore, data is an essential foundation material on which researchers' function, according to Bell (2014), and it can be obtained through observations, interviews, surveys, and so on. As a result, the researcher will make a well-structured questionnaire in this study.

#### **1.10.2 The method of how data will be collected.**

To acquire valid results and research conclusions, structured questionnaires will be used to collect data for this study. Structured surveys will be designed so that respondents can engage in further discussion. There will be both closed and open-ended questions on the surveys. Questionnaires are commonly conducted by hand, through computer-assisted software programs (online), telephone, postal service (snail mail), or by contracting with data collection businesses, according to Blumberg, Cooper, and Schindler (2008:221- 227). To ensure that participants get the surveys, they will be distributed by hand for this study. The 100 structured

questionnaires will include questions relating to the research questions mentioned in chapter one.

### **1.10.3 How the data will be analysed.**

Transferring a paper document to an electronic one is known as data capture (Hamzah, Yatin, Ismail & Ghazali, 2018). Data will be collected and evaluated in an electronic spreadsheet for this study. Data analysis aims to convert enormous amounts of data into meaningful insights (De Voss 2002:339). The researcher will use the statistical method to analyse numerical data. Statistical studies include the study of data collection, analysing data, interpretation of data, data presentation, and organisation data.

In data analysis, two measurements are utilised: descriptive and inferential. Descriptive statistics entails arranging, requesting, and summarising information (diagrams and charts) and calculating the measures that characterise the phenomenon. Statistical inference utilises patterns in data samples to derive inferences regarding the studied population or to account for variability. Inferences include answering true or false questioning about data (hypothesis testing), estimating numerical features of the data (approximation), and modelling relationships within the data (autocorrelation)

The researcher will employ both descriptive and inferential methods. The researcher will summarise data sets using a blend of tabular (table) explanation, graphical description (diagrams and graphs), and statistical analysis (in the manner of a summary of the outcomes based on the studies given). Data will be collected and analysed in an electronic spreadsheet before being examined with statistical software. Mean scores will be computed, allowing for the identification of expected and actual competence and the calculation of the expectation-performance gap for both professional and technical abilities. Because of its effectiveness and user-friendliness, the Software Program for Social Sciences will be utilised to analyse the data. When appropriate, the data will be transformed into graphs and tables for convenient viewing and analysis.

## 1.11 Ethical Considerations

This study will be evaluated and authorised by the research ethics panel of the Cape Town University of Technology. The rights of all members concerned during the analysis and revered. Therefore, the responses will be protected. Before submitting anonymous survey questionnaires, the respondents will be informed about the voluntary nature of participation, with the correct to withdraw at any time when requested.

According to Leedy and Ormrod (2010:101-104), most of the moral issues addressed in research studies fall into the following categories:

- Protection against danger or damage: All respondents should be protected from physical harm.
- Informed consent: All respondents should be informed of the research's participation: Respondents must choose to participate in the study voluntarily.
- Right to privacy: Respondents should be assured that their responses will be treated confidentially.

## 1.12 Chapter Classification

**CHAPTER 1:** Introduction to the study, literature review/background, problem statement, research methodology, data collection instrument, data collection methods, data analysis, and ethical consideration.

**CHAPTER 2:** Job performance, factors impacting job performance, alignment of job performance to qualification and tasks.

**CHAPTER 3:** Motivation, theories of motivation, factors that motivate performance, factors that demotivate employee performance.

**CHAPTER 4:** Technology, technological working system, impact of technology on performance, virtual and online operations, the impact of technology on efficiency.

**CHAPTER 5:** Ergonomics, the impact of ergonomics on performance, the impact of environment on performance, the role of leadership/management on employee performance, and the pact of unsupervised admin operations.

**CHAPTER 6:** Conceptual framework, performance models, motivation model Is, conceptualised model for virtual operations

**CHAPTER 7:** Research design, research methodology, mixed research methodology, merits and demerits of the mixed research methodology, data collection models, choice of data collection design, and data analysis.

**CHAPTER 8:** Data cleaning, editing, coding, capturing, illustration construction, analysis and interpretation.

**CHAPTER 9:** Summary of findings, conclusions, recommendations, limitations, study significance, and prospects for future study.

### **1.13 Chapter Summary**

This study has demonstrated that technology continuously improves and changes different expectations of daily living. Therefore, there is an increasing need for awareness of technological changes to adapt to the changing world. Furthermore, artificial knowledge and other fourth industrial technologies, such as virtual offices, are becoming a reality and enforcing changes in all operational areas.

## **CHAPTER 2**

### **JOB PERFORMANCE, FACTORS IMPACTING ON JOB PERFORMANCE, ALIGNMENT OF JOB PERFORMANCE TO QUALIFICATION AND TASKS.**

#### **2.1 Introduction**

As the previous chapter introduced the purpose of the research, the research problem, and the research topic, this chapter connects to the previous chapter by discussing the research problem using existing literature that relates to factors affecting job performance, either when working from home or the office. With careful consideration of the wide range of definitions given by different authors and scholars of the phrase "Job performance", this chapter will begin with a review of the literature on how different theories and writers define the phrase. This chapter will also give a detailed overview of how different authors measure and evaluate job performance, factors affecting the job performance of workers working in a virtual office or working from home, and factors affecting the job performance of workers working in a traditional office or physical office, and the importance of alignment between job performance and tasks or duties performed by workers.

Lastly, this chapter will briefly overview studies conducted globally and in South Africa relating to the research problem and topic. Finally, this chapter will conclude with an assessment of the literature; the assessment of literature will compare and contrast findings from different authors.

#### **2.2 Defining Job Performance.**

An article by Motowidlo, Borman, and Schmit (2012:82-103) starts by defining performance. According to Motowidlo, Borman, and Schmit (1997:82-103), performance refers to the intended organisational value of what people do, which leads to results. Job performance is defined as an individual's value to the organisation and discrete behavioural events over a set time (Motowidlo, Borman, & Schmit 2012:82-103).

Motowidlo, Borman, and Schmit (2012:82-103) make two classifications of job performance, task performance and contextual performance; task performance encompasses the most recognised set of activities and duties that usually appear in job descriptions (Motowidlo, Borman, & Schmit 2012:82-103). Task performance is most likely to be divided into two forms; one involves the direct involvement of an employee in a company's production process, for example, operating a machine.

The other form of task performance includes actions that support and sustain the technical core by replacing raw resources, delivering finished goods, or providing critical planning, management, overseeing, or staff responsibilities that allow it to function correctly (Motowidlo, Borman, & Schmit 2012:82-103). Finally, the contextual aspect of job performance refers to an employee's behavioural competencies that directly impact an employee's performance and contribute to organisational effectiveness through its effects on the psychological, social, and organisational context of work.

Sonnentag et al. (2008:427-447) define job performance as a concept with several perspectives ranging between behavioural and outcome aspects. The behavioural aspect of job performance relates to how individuals conduct themselves while at work and their actions (Sonnentag et al. 2008:427-447). On the other hand, the behavioural aspect of job performance refers to a set of actions and employee competencies exclusively, for example, how an employee conducts themselves during a sales pitch to a prospective client, their ability to assemble a product or their computer programming competencies (Sonnentag et al. 2008:427-447).

In contrast to the behavioural aspect of job performance, the outcome aspect encompasses the results of an employee's behaviour (Sonnentag et al. 2008:427-447). For example, from the examples above, job performance refers to the amount made from sales other than an employee's behaviour during a sales pitch. However, there is a vast inter-relatedness between the behavioural and outcome aspects of job performance as they affect one another and lead to task performance (Sonnentag et al. 2008:427-447). Sonnentag et al. (2008:427-447)



define task performance as an employee's contribution to the performance of an organisation according to their job description.

## **2.3 Measuring and Evaluation of Job Performance by Different Authors.**

### **2.3.1 Performance Appraisal Policy.**

Akinbowale et al. (2014:342-347) conducted a study on employee performance measurement and performance appraisal policy in an organisation; the purpose of the study is to investigate the impact of performance appraisal policies on evaluating employee performance. According to the study, employee job performance can be measured using the performance appraisal system.

According to Akinbowale et al. (2014:342-347), a performance appraisal policy is a collaborative procedure involving both the supervisor and the employees in identifying common goals aligned with the organisation's objectives. Additionally, if employees are adequately appraised, the organisation will see increased productivity and higher quality performance. Therefore, Akinbowale et al. (2014:342-347) regard performance appraisal as the most well-known technique of measuring employee job performance.

Akinbowale et al. (2014:342-347) classify five different types of performance appraisal that can be used to evaluate employee performance in an organisation:

#### *The 360-Degree Appraisal.*

This approach involves handing out a questionnaire with questions about a co-worker's performance which they must complete. Then, when evaluating performance at the end of the quarter/year, the supervisor might consider these inputs.

#### *General Performance Appraisal.*

This strategy entails constant engagement between the worker and his supervisor and systematically identifying objectives and achievements. The employee's ability to honour the entire process is assessed at the end of a specified period.

#### *Technical Performance Appraisal.*

Since the employees involved have specific abilities, this appraisal technique focuses on technical performance more than any other aspect of job performance. Therefore, employees are evaluated based on their abilities and the activities they perform.

#### *Manager Performance Appraisal.*

This purpose is to evaluate the manager's performance, which involves not just on-the-job performance but also relationship administration with customers. In most cases, confidential evaluation forms *are collected and evaluated after that.*

#### *Project Evaluation Review.*

This approach requires evaluating the group members' performance at the end of each project rather than at the end of the year. This allows the team and its members to grow as each project progresses.

#### *Employee Self-Assessment.*

The last common type of performance appraisal is Employee Self-Assessment; it is also the least used as employees dislike this technique since no one can manage to evaluate themselves. The contrasts between the self-assessment sheet filled out by the employee and the one filled out by the manager are discussed.

Akinbowale et al. (2014:342-347) also identify six different techniques for doing performance appraisal.

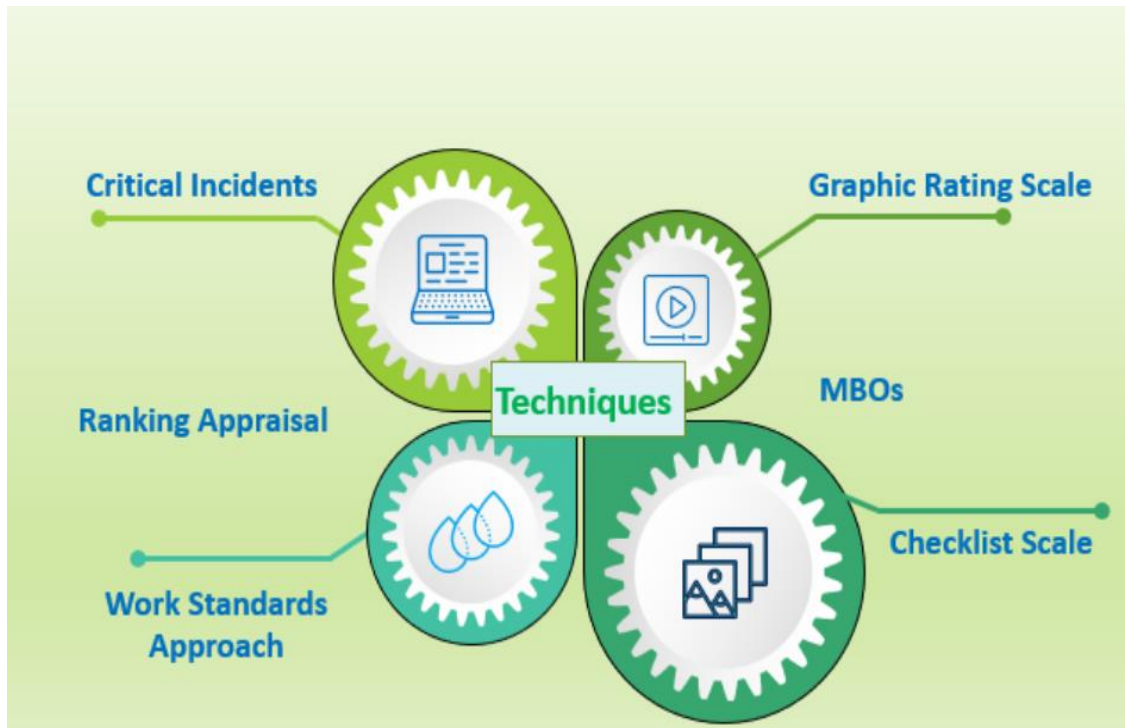


Figure 2.1: Performance appraisal techniques

Source: EDUCBA

*Graphic Rating Scale.*

In this technique, employees are assigned a fixed score based on the attributes they must possess. Employees are classified into several tiers based on their final score, which aids in their performance appraisal at the end of the year. It is simple to comprehend and use. This method allows for the quantification of behaviours and the simplification of Appraisal.

*Essay Performance Appraisal Method.*

This technique involves a fact-based performance description of employees with examples to back it up, and the employee is evaluated on the job based on this. It is also known as the Free-Form method.

*Checklist Scale.*

In this technique, a checklist comprises Yes or No answers based on employee qualities. If an employee possesses a specific attribute, it is marked as yes or no.

*Critical Incidents.*

The supervisor must compile a list of significant instances that emphasise an employee's behaviour as occurrences aid in determining an employee's best behaviour, and he or she is then graded accordingly.

*Ranking Appraisal.*

This technique entails a manager ranking and assessing employees assigned to the same job. Employees are ordered either in ascending or descending order sequentially according to their rankings.

*Management by objectives.*

This technique encompasses creating goals for employees on the job, which they must meet and then be evaluated based on those goals. Smart goals, or specific, measurable, actionable, relevant, and time-bound goals, are established to avoid biases.

*Work Standards Approach.*

In this technique, an executive set predetermined requirements, and the final output generated by the team members must meet those criteria, after which each member is evaluated. As a result, the employee is well-versed in their job and its requirements.



*Figure 2.2: The Armstrong Performance Management Cycle.*

Source: Slidemodel.com

The Armstrong Performance Management Cycle is a never-ending process of performance improvement. This is accomplished through setting objectives, working toward them, evaluating progress, and acquiring new skills (Armstrong, M. 2005:13).

### **2.3.2 Agile Continuous Performance Management.**

The value of this performance management and evaluation system comes from the focus on being constant and holistic. Feedback, referred to as "check-in" in his framework, is delivered regularly, making it more natural for all parties involved. With ongoing, positive performance supervision, employers and supervisors can build authentic workplace connections based on performance improvement and openness (Sangar & Razmi, 2015:357-380).

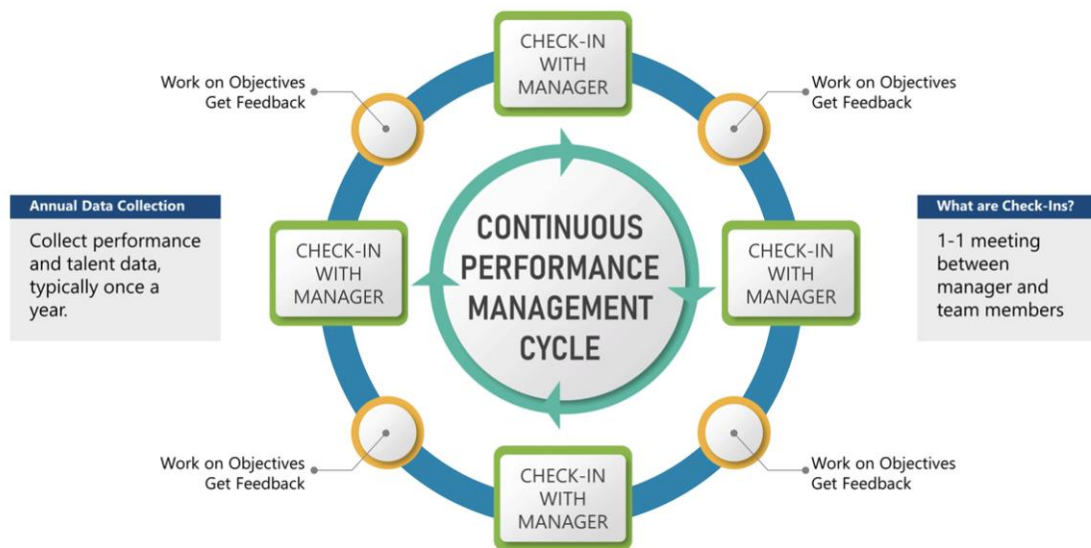


Figure 2.3: The Agile performance management system

Agile performance management evaluates and develops employees that substitute annual performance assessments with a continuous and participatory approach. Objective planning, measuring performance, teamwork, frequent feedback, flexibility to meet changing organisational demands, and good coaching are all emphasised in this approach (Sangar & Razmi, 2015:357-380).

It relies on a basic performance management approach by being regular and continuous while remaining flexible enough to meet organisational changes and everyone's unique qualities and goals. It also demands supervisors to be more facilitative rather than directive. However, in most situations, the fundamental performance management model that organisations claim to use falls short of employee expectations in terms of goal clarity, evaluation, and frequency and quality of feedback (Sangar & Razmi, 2015:357-380).

### 2.3.3 The International Labour Organization's management system.

The International Labour Organization's Management system is designed to be a versatile procedure that may be used by individuals or teams in a variety of areas and businesses. It is also a framework for ongoing and holistic performance

evaluation. Therefore, each of the four sections of this cycle focuses on communication and constructive feedback. One of the distinguishing elements of this management style is the integration of employee-to-leader input and the amount and quality of participants' responses (International Labour Office, 2009:1-7).

## **2.4 Factors Affecting Job Performance in Higher Learning Institutions: Global Perspective.**

As the previous section of this chapter has given formal descriptions of the phrase “Job Performance” according to different authors, this section links to the above section by exploring existing literature on factors affecting job performance by giving a brief overview of what other authors found to be factors likely to affect the job performance. This section is structured as follows:

1. Factors affecting job performance.
2. Factors affecting job performance when working in the office.
3. Factors affecting job performance when working in the office.

### **2.4.1 Factors affecting job performance.**

Tunio et al. (2021:473-483) researched factors affecting the job performance of academic staff; the research focused on the job performance of academic staff in Pakistan in 2021. The study was conducted on a sampled population of lecturing and non-lecturing academic staff of Private business schools in Karachi; The data was collected through the distribution of multi questionnaires among the population (Tunio et al. 2021:473-483). The study's results outlined several factors affecting the job performance of academic staff in Pakistan. The factors found by the study are as follows:

#### *Psychological Diversity Climate.*

Tunio et al. (2021:473-483) explain Psychological Diversity Climate as employees' cognitive perceptions about their workspace, which helps them form a sentiment, impression, or judgment about their significant institution. Additionally, individuals

can create such views by looking at their company's code of conduct, values, and conditions of employment. Moreover, an individual's perspective on organisational principles that place a higher value on diverse cultures may vary from others (Tunio et al. 2021:473-483). The study concluded that a positive relationship exists between diverse climates and job performance; a diverse climate in the workspace is likely to increase job performance.

#### *Personality Traits.*

According to Tunio et al. (2021:473-483), people have different backgrounds and distinct beliefs, and each adapts to circumstances and shows inconsistent conduct. People with these features are said to have a higher level of job performance because they are always keen to learn new skills. Tunio et al. (2021: 473-483) outline five essential traits that affect the level of performance of individuals: extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience or culture. The study's results found a positive relationship between personality traits and job performance; if a person has the five traits mentioned above, their level of performance is likely to be higher than those who do not.

#### *Self-Esteem.*

According to Tunio et al. (2021:473-483), self-esteem is a person's optimism or contentment with their capabilities and confidence. Tunio et al. (2021:473-483) identify high self-esteem as an essential trait associated with achieving a goal. Additionally, People with better self-esteem are happier with themselves, have fewer friendship group issues, and are less vulnerable to mental illness. The study also concluded that the relationship between self-esteem and job performance is positive. Higher self-esteem leads to more satisfactory job performance.

#### *Self-Efficacy.*

Tunio et al. (2021:473-483) explain self-efficacy as an individual's belief in his or her ability to achieve his or her ambitions; self-efficacy refers to a person's assessment of his or her ability to organise and perform a job. Additionally, self-



efficacy is essential as it helps individuals perform better at work. Individuals with a high level of self-efficacy always see the positive in every situation and look at new situations as possibilities (Tunio et al. 2021:473-483). The study found a positive correlation between high self-efficacy and job performance.

Mwaiko (2013:34) conducted a study on factors affecting employee performance assessment in the education sector in Tanzania; the study seeks to assess factors affecting employee performance in the educational sector of Tanzania. To answer the research questions, the study employed a mixed-method research approach and used a questionnaire and interviews to source data (Mwaiko, 2013:34). The study's results outlined several factors affecting the job performance of academic staff members in Tanzania.

## **2.5 Factors Affecting Job Performance in Higher Learning Institutions: South African Perspective.**

The prevalence of the novel Covid-19 global pandemic led to a lot of economic disruptions and social unrest; this led to a shift in how things were traditionally done to a “New Normal” The educational sector, especially institutions of higher learning, were forced to adopt a new way of teaching, learning and working. The work-from-home culture and online learning seem to be the new normal and the last resort in the sector. This section aims to give a brief overview of how working from home affects job performance in South Africa in Higher learning institutions.



Figure 2.4: How Higher Learning institution employees coped with WFM.

Source: Michael Page Africa.

Employees in the education sector dealt with the work-from-home transition; 87% of employees did not change their work hours; in contrast, some chose to work flexible work hours. 46% were dissatisfied with working from home and preferred to work at the office as they used to; in contrast, 50% of employees were comfortable with the new arrangements. 63% of employees claimed their productivity increased while working from home; 71% anticipated a shift toward a more hybrid work culture.

Garg and Jan van der (2021:36-49) conducted a study on the benefits and pitfalls of employees working from home, the study focused on higher learning institutions in South Africa, and the study also explored the structural and relational factors affecting job performance in institutions of higher learning while working from

home and while working from the office. The study was done on 48 respondents; the data was collected using interviews and questionnaires.

The study concluded that institutions with employees willing to work from home benefit by saving more on rental, electricity, levy, rates, sewer, and water expenses (Garg & Jan van der 2021:36-49). In contrast, institutions with employees willing to be at the office incur more costs. The study also found a high negative correlation between working from home and job performance; the work-from-home culture has negatively affected employees' performance in higher learning institutions (Garg & Jan van der, 2021:36-49).

Okeke et al. (2021:1-14) conducted a study on South African Academics' perception of the impact of Work From Home (WFH) on effective teaching and learning in Universities; the study sought to understand the level of academics' preparedness to work in a multimodal remote teaching space, pedagogical practices adopted to enhance your online teaching as a result of WFH, and WFH impacts on teaching and learning as a result of the COVID-19 pandemic (Okeke et al. (2021:1-14).

The study employed a qualitative research approach and phenomenological case study research design; the study was conducted on a sample of 28 university lecturers in Gauteng, Free State, and Eastern Cape Provinces of South Africa (Okeke et al. (2021:1-14). The study utilised interviews and questionnaires to collect primary qualitative data from the respondents and used a thematic analysis to answer the research problem (Okeke et al. (2021:1-14).

The study's results found that working from home contributes negatively to job performance in institutions of higher learning as the respondents indicated a high association between mental health problems and the work-from-home experience (Okeke et al. (2021:1-14). Therefore, the study encourages institutions of higher learning to implement better techniques to smoothen the transition from going to the office and working from home (Okeke et al. (2021:1-14).

## 2.6 Assessment of Literature and Conclusion

The work-from-home culture and online learning seem to be the new normal and the last resort in the sector post-Covid-19. Therefore, many factors affect the job performance level for employees in higher learning institutions as people adjust to hybrid working conditions. This section aims to assess how different authors define the term job performance and the finding of different authors relating to job performance.

This chapter gave a detailed overview of how different authors measure and evaluate job performance, followed by factors affecting workers working in a virtual office or working from home and factors affecting the job performance of workers working in a traditional office or physical office. This chapter also examined the importance of alignment between job performance and tasks, or duties performed by workers. Lastly, this chapter provided a brief overview of studies conducted globally and in South Africa relating to the research problem and topic.

Researchers agreeably defined the phrase “job performance” as the total anticipated value to the organisation of an employee’s discreet behavioural competencies during a specific period. Most authors classified two aspects of job performance, task performance and contextual performance. Task performance encompasses the most commonly recognised activities and duties in job descriptions.

Task performance is most likely to be divided into two forms; one involves the direct involvement of an employee in a company's production process, for example, operating a machine. The contextual aspect of job performance refers to an employee's behavioural competencies that directly impact their performance and contribute to organisational effectiveness through its effects on the psychological, social, and organisational context of work.

The most common techniques identified by authors to evaluate and measure job performance are performance appraisals, the Armstrong Performance Management Cycle, the Agile Continuous Performance Management, and the International Labour Organization's management system. As it relates to factors

affecting job performance globally, the authors found psychological diversity, climate personality traits, self-esteem, self-efficacy, ongoing feedback, job satisfaction, fair treatment, and motivation to be the most common factors affecting job performance.

From the factors affecting job performance in higher learning institutions in South Africa, the existing literature and evidence give ambiguous and inconclusive results; evidence from some literature argues against the work-from-home culture. However, on the other hand, some results advocate for working from home. This, therefore, has left a gap in the literature and a need for further study; this research will seek to close the gap in the literature, as indicated by the topic, research objective and research question; this research will examine how working from home affects the level of job performance in higher learning institutions in the Western Cape province.

## **CHAPTER 3**

### **MOTIVATION. THEORIES OF MOTIVATION, FACTORS THAT MOTIVATE EMPLOYEE PERFORMANCE, AND FACTORS THAT DEMOTIVATE EMPLOYEE PERFORMANCE.**

#### **3.1 Introduction**

"69% of employees say they would work harder if they were better recognised." This is a statement that summarises the findings of a study conducted by Rahaman et al. (2020:515-521), who conducted research based on the factors that motivate employees in the workplace. He found that employees who are demotivated tend to have a low moral to get a task done, which affects job performance and employee's productivity negatively.

As the previous chapter gave a detailed overview of different factors that affect the job performance of employees, motivation was one of the factors found by Mwaiko (2013:34), who conducted a study on Factors affecting employee performance and

assessment in the education sector in Tanzania in 2013, as mentioned on the preceding chapter.

This chapter aims to give a detailed outline of theories of motivation, factors that motivate performance, and factors that demotivate employee performance. This chapter will begin with a review of the theoretical literature on how different theories and writers perceive the word "Motivation," considering the variety of definitions given by different authors and scholars of the phrase.

Secondly, this chapter will compare and contrast different theories of motivation and analyse scholars' understanding of different factors that motivate and demotivate performance focusing on institutions of higher learning. Additionally, this chapter will compare different findings of studies conducted in South Africa and Globally relating to factors that motivate and demotivate performance in institutions of higher learning.

In conclusion, this chapter will conclude by assessing the literature findings, and the findings will compare and contrast findings from different authors.

### **3.2 Defining Motivation**

Mwaiko (2013:34) explains motivation as a determinant of an employee's level of performance. As a result, initiative-taking individuals with a high level of job involvement and participation are valuable resources to a company. Additionally, a positive correlation exists between highly motivated employees and job performance.

Umuteme (2017:1-18) defines motivation as cognitive factors that govern an organisation's conduct, a person's level of work, and a person's tenacity when faced with challenges and obstacles. Umuteme (2017:1-18) further explained that motivation has two effects, the pull and the push effect. The pull effect of motivation occurs in an instance when employees can perform outstandingly while still being able to maintain a positive balance between their work and personal life. In contrast, the push effect of motivation occurs when motivation leads to

diminishing performance when there is no motivation factor (Umuteme, 2017:1-18).

Tohidi (2012:820 – 824 ) defines motivation as captivating people to attain peak performance to achieve a specific goal. Additionally, motivation is the force that inspires, directs, and encourages persistence in employee behaviour. A high level of motivation at a job leads to employees committing more to their jobs; motivation factors lead to a more solid employer-employee trust relationship.

Tohidi (2012:820 – 824 ) classifies motivation into two types: Extrinsic and Intrinsic Motivation. Extrinsic motivation is based on external motivators and rewards. Examples of extrinsic rewards are money, praise, accolades, and other external benefits. On the other hand, policies and practices, punitive action, traffic fines, boundary-setting, and other external reinforcers are examples of extrinsic reinforcements (Tohidi, H. 2012:820 – 824 ). According to social psychological studies, extrinsic rewards can lead to self-destruction and, as a result, a decrease in the intrinsic drive (Tohidi, 2012:820 – 824 ).

In contrast to extrinsic Motivation, Internal reinforcements and rewards are the core of intrinsic Motivation (Tohidi, 2012:820 – 824 ). Satisfaction, success, and competence are aspects of intrinsic motives. Internal reinforcers encompass "Shoulds", "Musts," and "Oughts", as well as fear of not meeting deadlines (Tohidi, 2012:820 – 824 ). According to researchers, intrinsic motivation is highly correlated to strong academic performance and satisfaction (Tohidi, 2012:820 – 824 ).

Bourne (2017:435-452) defines motivation as the process of encouraging someone or yourself to attain the desired results or achieve the desired reaction. Bourne. (2017:435-452) also regards motivation as persuading, encouraging, and stimulating employees to work freely, with enthusiasm, energy, optimism, fulfilment, and a coordinated approach, to complete tasks; additionally,, It is an effective way to boost enthusiasm.

Bourne (2017:435-452) also indicated that motivation is a process that includes the motive, behaviour, goal and feedback; motive refers to a person's internal psychological state that empowers, inspires, or pushes them to achieve their

objectives. Behaviour refers to different activities and attitudes (Bourne, 2017:435-452). Achieving a goal depends on motives, and motives usually cause perceptual and cognitive instabilities in an individual, the goal of motivation is achieved, and the stability is reinstated (Bourne, 2017:435-452).

### **3.3 Theories of Motivation**

As the preceding section gave a thorough definition of the phrase "motivation", this section links to the preceding section by comparing and contrasting different theories of motivation found by different Authors. This research will focus on two types of theories of motivation, namely, the classical theories of motivation and the modern theories of motivation.

The classical theories of motivation are ancient theories of motivation that were discovered ages ago that are still used; there are three well recognised classical theories of Motivation, the Fear and Punishment Theory, the Monetary Reward Theory and the Carrot and Stick Theory (Sisodia & Agarwal, 2020:181-205).

According to Sisodia and Agarwal (2020:181-205), the modern theories of motivation encompass theories of motivation that have been recently developed and are well known; the Modern theories of motivation include but are not limited to Maslow's Hierarchy of Needs, ERG Theory of Motivation, the Theory X and Y, the Herzberg's two-factor Motivation and Vroom's Valence Expectancy Theory (Sisodia & Agarwal 2020:181-205).

#### **Classical theories of motivation.**

##### *The fear and punishment theory.*

According to Sisodia and Agarwal (2020:181-205), this philosophy is founded on the military principle of "Neither makes reply nor query why but do or die," and the notion is that if individuals are motivated by fear and punishment, they would work effectively and with enthusiasm. This theory incorporates a pessimistic approach to human behaviour; according to this theory, an employee can be forced to work by instilling fear and punishment (Sisodia & Agarwal, 2020:181-205).



Threats, pressure, constant supervision, and moderate behavioural management are all used to motivate employee performance. However, this technique does not motivate individuals since it causes aggravation, and when workers are on the verge of hunger, this strategy works wonderfully (Sisodia & Agarwal 2020:181-205). Therefore, supervisors who used this approach developed a tactic to compel employees to work by threatening to discipline, dismiss, or reduce their pay if they did not perform adequately.

*The monetary reward theory.*

F.W Taylor first developed this theory; this technique or method attempted to create a direct link between reward and performance (Sisodia & Agarwal, 2020:181-205). Although, according to this theory, monetary rewards and work performance have a positive correlation, this theory of motivation believes that people behave in a way that they feel will result in a reward while avoiding behaviours that may result in punishment (Sisodia & Agarwal 2020:181-205).

According to management, people could perform and contribute better if they were rewarded for it (Sisodia & Agarwal 2020:181-205). To put this idea into effect, managers should set performance requirements, supervise staff behaviour, and decide on compensation systems depending on employee execution and results (Sisodia & Agarwal 2020:181-205).

According to this theory, there are two classifications of rewards: positive and negative. Positive rewards assure employees that they will get what they want in exchange for doing a good job. For example, accolades, bonuses, and incentives (Sisodia & Agarwal, N. 2020:181-205). On the other hand, negative rewards are rewards that resolve mistakes or forbid specific actions; punishments, disqualifications, wage reductions, and other types of penalties are examples of negative incentives (Sisodia & Agarwal 2020:181-205).

*The Carrot and Stick Theory.*

This theory considers reward and punishment and favourable and unfavourable motivational factors (Sisodia & Agarwal 2020:181-205). The Carrot and Stick

Approach to Motivation is a classical motivation theory stating that to motivate employees to arouse positive behaviour, rewards are sometimes given in the form of money, promotions, or other financial or non-financial benefits, and punitive measures are also used to force an employee towards a particular behaviour (Sisodia & Agarwal 2020:181-205).

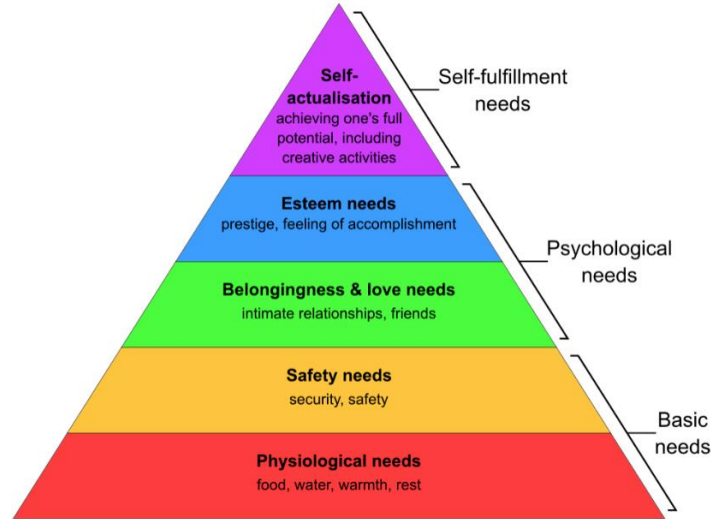
Therefore, when an employee performs adequately, he is given a carrot, for example, a reward, and when he does not, he is hit with a stick, for example, a penalty (Sisodia & Agarwal 2020:181-205). With an incentive and penalty framework as motivational tools for employees, the carrot and stick principle can be implemented effectively in the workplace. In the workplace, using a carrot and stick strategy to motivate employees can be efficient extrinsically.

This theory involves setting a goal for the employees to attain and then developing a carrot and a stick to motivate them to achieve it (Sisodia & Agarwal 2020:181-205). The carrot and stick strategy can be quite effective in changing the employees' attitude, leading them to avoid punitive offences and participate in actions which will receive accolades. Moreover, this strategy can help drive staff to accomplish the desired objectives as long as the reward is appealing, and the penalty is unfavourable (Sisodia & Agarwal 2020:181-205).

### **Modern theories of motivation.**

#### *Maslow's Hierarchy of Needs.*

Abraham Maslow developed this; when a person's needs are met, according to Abraham Maslow, they will be motivated (Sisodia & Agarwal 2020:181-205). The need begins with the most fundamental needs and progresses upward when each lower-tier need is satisfied (Sisodia & Agarwal 2020:181-205). Maslow classifies three needs that motivate employees, the basic needs, which are the lowest tier of needs. The second classification is the psychological needs which come after basic needs. Lastly, the self-fulfilment needs are the top tier of needs in the hierarchy (Sisodia & Agarwal 2020:181-205). According to Sisodia and Agarwal (2020:181-205), Maslow's Hierarchy of needs is represented as follows:



*Figure 3.1: Maslow's Hierarchy of Needs*

Source:(Sisodia & Agarwal 2020:181-205).

Physiological needs are physical existence essentials such as food, water, and shelter.

Safety needs are physical, environmental, and emotional safety and protection, which are all crucial for safety, for example, job stability, financial stability, the welfare of animals, family safety, and health care.

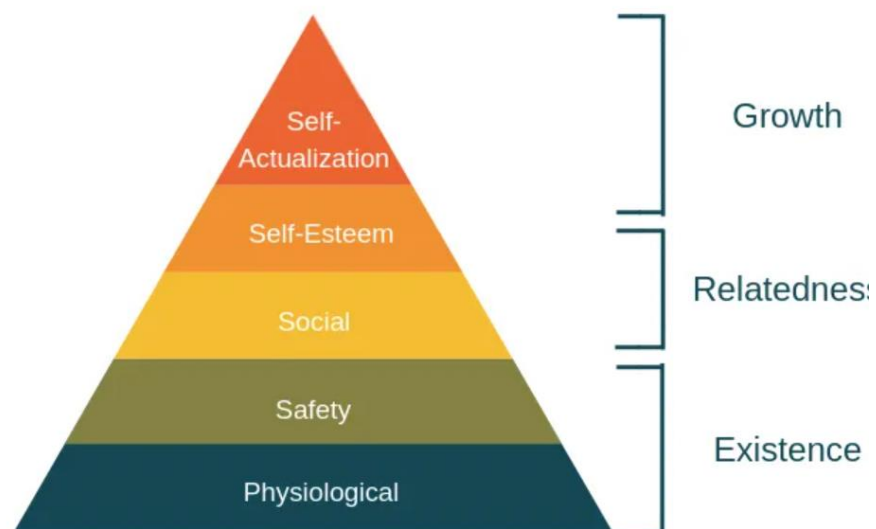
Social or Belongingness and love needs encompass the needs for the association; for example, love, affection, caring, a sense of belonging, and friendship are all social needs.

Sisodia and Agarwal (2020:181-205) classified two types of esteem needs by Abraham Maslow, internal and external esteem needs. Internal esteem needs are self-respect, confidence, competence, achievement and freedom. Examples of external esteem needs are recognition, power, status, attention and admiration.

Self-actualisation needs to involve a willingness to become what one can or has the can. It encompasses the desire for personal development as well as self-satisfaction. This also comprises an urge to succeed more, help others, be innovative, and be elegant.

*ERG Theory of Motivation.*

Credits for the development of the ERG theory of motivations go to Clayton Alderfer, who redefined Abraham Maslow's hierarchy of needs theory of motivation in his terms to bring it in line with empirical findings and then named it the ERG theory of Motivation (Sisodia & Agarwal 2020:181-205). Clayton Alderfer reclassified the hierarchy of needs into three simplified tiers: existence, relatedness, and growth. Existence needs are the lowest tier of needs on the ERG hierarchy of needs; the second classification is the relatedness needs which are at the top of existence needs. Lastly, the growth needs are at the top of the ERG hierarchy of needs (Sisodia & Agarwal 2020:181-205). As one need is satisfied, the employee will be motivated to fulfil another need, according to the theory. Therefore, for an employee to feel motivated, all three needs must be satisfied simultaneously (Sisodia & Agarwal 2020:181-205).



*Figure 3.2: ERG Hierarchy of needs*

Source:(Sisodia & Agarwal (2020:181-205).

**Existence needs**, in a nutshell, refer to a person's physiological and physical safety needs or the acquisition of basic material needs.

**Relatedness needs** include Individuals' desires for sustaining meaningful interpersonal relations, whether with family, friends, or supervisors, and public recognition and acknowledgement.

**Growth needs** include Maslow's self-actualisation needs and the internal aspect of esteem needs, for example, self-development and personal growth and advancement.

*Theory of X and Y of Motivation.*

According to Sisodia and Agarwal (2020:181-205), this theory is a combination of two theories of motivation, theory x and theory Y and was developed by Douglas McGregor in 1957. These two theories differentiated between classic authoritarian assumptions about people's nature (Theory X) and behaviour-based beliefs (Theory Y). McGregor's theories are valuable because he claims that most managerial decisions are based on whatever theory of human behaviour supervisors accept (Sisodia & Agarwal 2020:181-205).

According to Sisodia S. and Agarwal N. (2020:181-205), theory X assumes that:

- by nature, the average human being is lazy and prefers to do small amounts of work;
- he despises his job and will do whatever he can to evade it.
- He dislikes taking responsibility and wants to be guided or directed by somebody else.
- He is self-absorbed and unconcerned about the demands of the organisation.

- He lacks motivation, hates commitment, and wants to be directed while desiring stability.
- He is not exceptionally bright and does not have ingenuity when it comes to resolving organisational issues.
- He is a natural sceptic of any kind of change.

Theory Y is based on the assumption that:

- work can be as natural as pleasure if the working atmosphere is conducive, and work can be a source of pleasure or punishment. Also, the average person is not opposed to working (Sisodia & Agarwal, 2020:181-205).
- When people are appropriately motivated, they can be self-directed and innovative at work.
- Self-control on the part of people helps achieve organisational goals. However, external control and threats of punishment alone do not bring out efforts toward organisational objectives.
- Employees can be innovative.
- People are not passive or reluctant to organisational demands by nature.

*Herzberg's two-factor theory of motivation.*

According to Sisodia and Agarwal (2020:181-205), this theory belongs to Herzberg, who also extended Maslow's theory to his theory of motivation; the theory has two categories of needs, namely, hygiene and motivational factors.

Hygiene factors are those aspects of the job required for motivation to prevail at work. These do not contribute to long-term fulfilment. However, unhappiness will result if these factors are missing or non-existent in the job. On the other hand, when hygiene factors are sufficient or appropriate in a job, they calm employees and do not cause them to be unhappy. Therefore, these factors are extrinsic to work (Sisodia & Agarwal, (2020:181-205).

The hygiene factors, according to Herzberg, cannot be considered motivators, and positive contentment results from the motivational factors. These aspects of the job are unavoidable, and these elements motivate employees to give their best effort. These aspects naturally motivate employees, and the motivating factors highlight the psychological requirements that were seen as a reward (Sisodia & Agarwal 2020:181-205).

*Vroom's Valence Expectancy Theory.*

Victor Vroom postulated this theory in 1964 to understand how humans function and what motivates their performance (Sisodia & Agarwal 2020:181-205). According to Vroom's Valence Expectancy Theory, behaviour is the consequence of deliberate choices among possibilities to boost satisfaction and minimise pain (Sisodia & Agarwal 2020:181-205). In addition, Vroom observed that an employee's performance is influenced by personal characteristics such as character, abilities, competencies, education, and expertise (Sisodia & Agarwal 2020:181-205).

Although people may have particular objectives, the theory argues that they can be motivated if they believe there is a positive relationship between effort and performance; a good reward will be earned for performing adequately, and the incentive will fulfil a critical need. This is because the desire to fulfil the need is significant enough to justify the effort (Sisodia & Agarwal 2020:181-205). In his theory, Vroom explained that employee motivation is a function of Valence (value), Expectancy (probability) and Instrumentality (relationship between performance and reward) (Sisodia & Agarwal 2020:181-205).

Valence is explained as the emotional inclinations people have toward results.

Expectancy is known to be the varying expectations and levels of self-assurance regarding the abilities employees have.

Instrumentality refers to Employees' judgments of whether or not they will get what they want, even if a manager has promised it.

### 3.4 Factors that Motivate Employee Performance.

As Umuteme (2017:1-18) defines motivation as cognitive factors that govern the nature of a person's conduct in an organisation, a person's level of work, and a person's level of tenacity when faced with challenges and obstacles, motivation can either be intrinsic or extrinsic. Intrinsic motivation is subjective to individuals; internal reinforcements and rewards are the core of intrinsic motivation. Thus, different factors can motivate employees to complete a task, subject to their internal reinforcements.



Figure : Factors that motivate employee performance

Source: <https://bohatala.com/>

The above figure demonstrates different factors that motivate employee performance; Motivation in the workplace can come from clear goals, supportive peers, a friendly work environment, determination, challenges, opportunity, encouragement, and reward.

This section examines the factors that motivate employee performance in the workplace, focusing on institutions of higher learning. As mentioned above, this research will examine the existing literature on factors that motivate workplace employees. In addition to this, this study will examine evidence from studies



conducted globally and evidence from studies conducted in South Africa relating to the topic.

#### **3.4.1 Factors that motivate employee performance: Global overview**

Rahaman et al. (2020:515–521) studied factors that motivate employees in the workplace in 2020. The study examines factors that motivate employee performance in the workplace in Bangladesh (Rahaman et al. 2020:515–521). The study used a sample of 240 observations to answer the research questions. The data used in this study used surveys and questionnaires, which were disbursed to a total of 240 employees (Rahaman et al. 2020:515–521). Out of 240 disbursed surveys, 77% of respondents responded correctly.

<i>Factors that motivate employees</i>	<i>n</i>	<i>Mean</i>	<i>Rank</i>
Job certainty and safety	183	2.78	1
Career progression and advancement at workplace	183	3.66	2
Quality working environment	183	3.92	3
Satisfactory remuneration and salary package	183	3.95	4
Fascinating and exciting job	183	5.49	5
Managerial assistance to resolve problems	183	6.62	8
Acknowledgement and admiration of work done	183	6.34	6
Fair and reasonable organizational rules and policies	183	7.63	10
Job responsibility	183	6.44	7
Opportunity to develop new job skills	183	7.37	9

*Table 3.1: Ranking of selected motivation factors.*

Source: Rahaman, A. et al. (2020:515–521)

The study selected significant employees and allocated a score of 1-10 to be scored by the respondents; the mean value was used to determine the degree of significance of the motivation factors; a motivation factor that has the lowest mean value is then regarded the highly significant motivating factor, the most important motivating factor is 1, whereas the least essential motivating factor is 10 (Rahaman et al. 2020:515–521). The opposite is true for the motivation factor with the highest mean value. From the results of the study, it is evident that job certainty, career growth and advancement opportunity, and a quality working environment are regarded as the highly significant motivating factors by employees in the workplace in Bangladesh (Rahaman. et al. 2020:515–521).

Malik (2010:143 - 149) conducted a study on the motivational factors of the faculty members at the University of Balochistan; the study focused on an institution of higher learning in Pakistan in 2009 (Malik, 2010:143 - 149). The study aims to

explain the significance of motivating factors for faculty members at the University of Balochistan. One hundred employees from the of Motivation factors.

<b>Rank of importance</b>	<b>Motivation factor</b>
1	Living in a safe area
2	Good Salary
3	Promotion and growth in the org
4	Interesting work
5	Conducive working condition
6	Sympathetic help with personal problems
7	Appreciation of work done
8	Personal loyalty to employees

*Table 3.2: University of Balochistan were sampled for the study.*

Source: Malik, N. (2010:143 - 149).

The study selected eight motivation factors and used descriptive surveys to collect data from employees of the University of Baluchistan (Malik 2010:143 - 149). The selected motivation factors are ranked according to their importance to employees observed (Malik 2010:143 - 149). The survey asked 100 respondents to assess the importance of various factors that motivated them to finish their tasks on a scale of one to ten, with one being the most important.

The study results show that employees of the University of Baluchistan rank living in a safe area and good pay as key to higher employee motivation as significant motivation factors (Malik 2010:143 - 149). Additionally, the study recommended that institutions of higher learning in Pakistan should consider including job enlargement, career growth, advancements, and financial and non-monetary incentives in carefully designed reward systems (Malik 2010:143 - 149).

Shaheen et al. (2013:105-112) studied the factors affecting the motivation of Kotli University College faculty members. The study investigated the influence of motivation factors on the job performance of employees of the university college (Shaheen et al. 2013:105-112). The study focused on two motivational factors, namely, reward and administrative policies, as independent variables of the study that influence Motivation (Shaheen et al. 2013:105-112).

The study employed two data types, primary and secondary data. Primary data was collected using questionnaires, and secondary data was extracted from different journal articles (Shaheen et al. 2013:105-112). The study uses qualitative research, and a questionnaire with a dichotomous scale was employed as a data source (Shaheen et al. 2013:105-112). Fifty questionnaires were circulated to various university lecturers; out of that, only 35 responded, constituting a 70% response rate (Shaheen et al. 2013:105-112).

*Table 3.3: Questions relating to reward*

S.No	Items	Yes	%age	No	%age	Total	%age
21	Does your university administration have a transparent performance appraisal system?	12	34.28	23	65.72	35	100
22	Do you think that your boss/head appreciate your participation in decision making?	18	51.40	17	48.60	35	100
23	Do you feel that your administration is best in communicating its policies and procedures etc.?	17	48.60	18	51.40	35	100
24	Does your university administration have fair and transparent placement policies?	21	60	14	40	35	100
25	Does your administration favor you in finding career development opportunities within or outside your university?	22	62.90	13	27.10	35	100
26	Are you availing the opportunity of accomplishing MS/M-Phil/Ph-d degree programme from your university?	14	40	21	60	35	100
27	Does there exist an effective accountability system (both for academic staff & students) within your university?	12	34.28	23	65.72	35	100
		Avg = 16.6	Avg= 47.35				

Source:(Shaheen et al. 2013:105-112).

This data is represented in a frequency distribution table above. From the questions asked, it can be observed that

- 60% of respondents stated that they are paid a fair wage.
- 22.86% of the respondents acknowledged that they publish their research articles and get compensated.
- 45.72% of respondents believed that they were underpaid.
- 48.60% of respondents were satisfied with their salary.
- 80% of respondents wanted an increment.
- Moreover, 100 % wanted to be rewarded for outstanding performance.

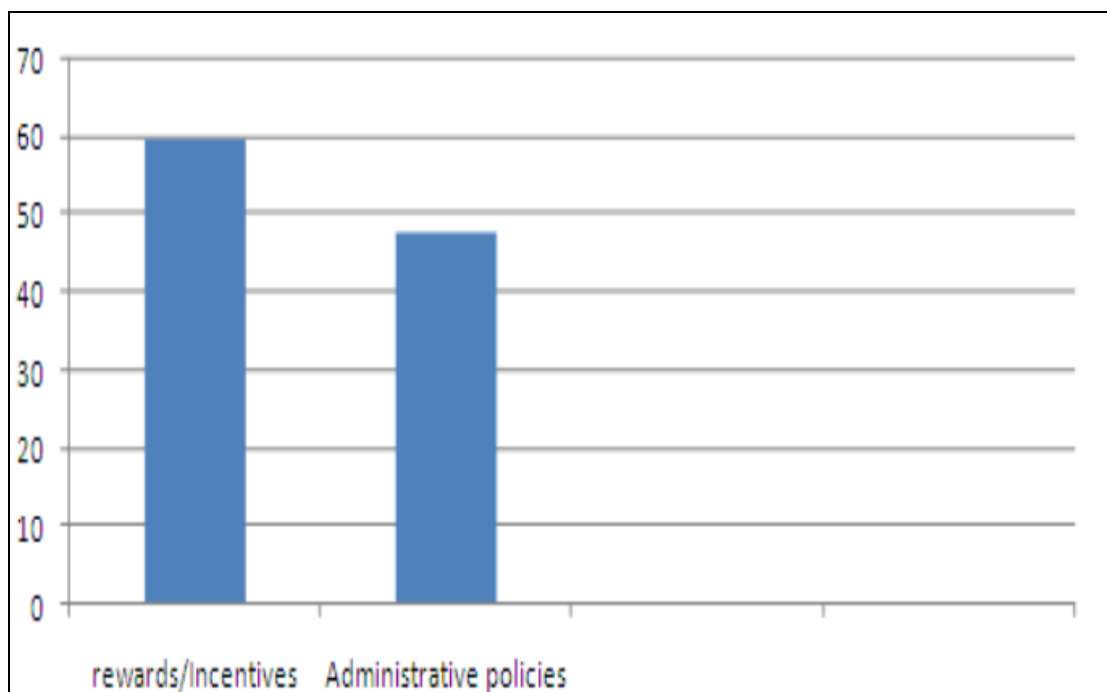
*Table 3.4: Questions relating to administrative policies*

S.No	Items	Yes	%age	No	%age	Total	%age
21	Does your university administration have a transparent performance appraisal system?	12	34.28	23	65.72	35	100
22	Do you think that your boss/head appreciate your participation in decision making?	18	51.40	17	48.60	35	100
23	Do you feel that your administration is best in communicating its policies and procedures etc.?	17	48.60	18	51.40	35	100
24	Does your university administration have fair and transparent placement policies?	21	60	14	40	35	100
25	Does your administration favor you in finding career development opportunities within or outside your university?	22	62.90	13	27.10	35	100
26	Are you availing the opportunity of accomplishing MS/M-Phil/Ph-d degree programme from your university?	14	40	21	60	35	100
27	Does there exist an effective accountability system (both for academic staff & students) within your university?	12	34.28	23	65.72	35	100
		Avg = 16.6	Avg= 47.35				

Source: (Shaheen, et al., 2013: 105-112).

From the questions relating to administrative policies asked, it can be observed that:

1. 34.28% of respondents acknowledged that the University has a transparent appraisal system.
2. 51.40% of respondents said that they are involved in decision-making.
3. 48.60% agreed that administrative policies are communicated adequately.
4. 60% said the University is transparent.
5. 62.90% of respondents acknowledged that the institution helps them with finding opportunities.
6. 40% were interested in the opportunity to advance their studies.
7. Moreover, 34.18% agreed that the University's accountability system is efficient.



*Figure 3.3: Summary of results.*

Source:(Shaheen et al. 2013:105-112).

From the findings of the study, it is evident that rewards influence employee performance by up to 59.5%, while on the other hand, administrative policies have 47.35.% influence on employee performance (Shaheen et al. 2013:105-112).

### 3.4.2 Factors that motivate employee performance: South African overview.

Khumalo (2021:58-66) conducted a study based on the factors that affect the motivation of employees in the institution of higher learning in South Africa. The study's primary aim is to examine and evaluate the factors that affect the morale of employees in the institution of higher learning in South Africa, and a qualitative research approach was utilised in the study (Khumalo, 2021:58-66). The study's sample size was 108 observations from the University staff members, and questionnaires were circulated among the staff to collect data. SPSS version 22 was used to examine the data and create tables (Khumalo, 2021:58-66).

The first section asked for demographic information from the participants, while the subsequent sections asked for replies to questions linked with the paper's objective, such as 1-extremely dissatisfied, 2-dissatisfied, 3-neutral, satisfied, and 5 – very satisfied. The paper employed descriptive statistics, median, chi-square, P-values, and binomial tests (Khumalo 2021:58-66).

*Table 3.5: Questions relating to involvement, feedback, and conditions of services*

Question	Strongly disagree	Disagree	Natural	Agree	Strongly agree	Total
5.1 The university involves staff in decision making.	35.6	26.9	26.9%	5.8%	4.8%	100%
5.2 The university has a system/process in place that encourages employees to offer feedback and ideas.	35.2%	32.4%	21.9%	9.5%	1%	100%
5.3 I am satisfied with the conditions of service in the university.	28.4%	29.4%	17.6%	19.6%	4.9%	100%

Source:(Khumalo, N. 2021:58-66).



As seen in the above table, 35.6% of employees strongly oppose if the institution includes them in decision-making (Khumalo 2021:58-66). Conversely, 35.2% strongly disagree that the University's current system motivates staff to submit feedback and suggestions (Khumalo 2021:58-66). The data also shows that 28.4% are happy with the terms and conditions at the University (Khumalo 2021:58-66).

*Table 3.6: Questions relating to Payments, benefits, and promotions processes*

Question	Strongly disagree	Disagree	Natural	Agree	Strongly agree	Total
6.1 I am paid fairly for the work that I do.	44.3%	25.5%	12.3%	17%	0.9%	100%
6.2 I feel that benefits provided by the university meet my needs well	31.7%	32.7%	14.4%	17.3%	3.8%	100%
6.3 Promotions processes are fair for all staff in the university.	45.1%	26.5%	19.6%	3.9%	4.9%	100%

Source:(Khumalo 2021:58-66).

As seen in the above table, 44.3% of respondents strongly disagree that they are correctly paid for the job they do; on the other hand, 31,7% of respondents strongly disagree that the University's incentives suit their needs (Khumalo 2021:58-66). The data also shows that the University's promotion processes were equitable for all employees, with 45.1% responding that they strongly disagree (Khumalo 2021:58-66).

Question	Strongly disagree	Disagree	Natural	Agree	Strongly agree	Total
7.1 Communication in the university is open and clear and there is no need for gossip.	34.3%	23.8%	22.9%	16.2%	2.9%	100%
7.2 I work with unreasonable deadlines and heavy workloads.	9.5%	30.25%	20%	22.9%	17.1%	100%
7.3 The university's HR policies are communicated clearly to all employees.	41.3%	27.9%	16.3%	6.7%	7.7%	100%

*Table 3.7: Questions relating to Communication, workload, and HR policies*

Source:(Khumalo, 2021:58-66).

As seen in the above table, 34.3% of respondents believe that communication at the institution is entirely transparent (Khumalo 2021:58-66). It also indicates that 22.9% of respondents agree they work with extreme deadlines and heavy workloads. Lastly, 41.3% of respondents indicated that the University's HR regulations are adequately outlined to all employees (Khumalo 2021:58-66).

The paper's results indicate that employee motivation is low and that performance management and feedback, working conditions, salaries and bonuses, incentives, promotion processes and appreciation, understanding of policies, care and work volume are all important factors influencing employee motivation.

### **3.5 ASSESSMENT OF LITERATURE AND CONCLUSION.**

This chapter gave a detailed outline of theories of motivation, factors that motivate performance, and factors that demotivate employee performance. Additionally, this chapter reviewed the theoretical literature on how different theories and writers perceive the word "Motivation" and considered the variety of definitions given by different authors and scholars of the phrase.

This chapter also compared and contrasted different theories of motivation and analysed how different scholars understand different factors that motivate and demotivate performance focusing on institutions of higher learning. Additionally,

this chapter compared different findings of studies conducted in South Africa and Globally relating to factors that motivate and demotivate performance in institutions of higher learning.

Different authors collectively define the phrase "motivation" as cognitive factors that govern the nature of a person's conduct in an organisation, a person's level of work, and a person's tenacity when faced with challenges and obstacles. Authors furthermore classified motivation into two types: Extrinsic Motivation and Intrinsic Motivation. Extrinsic motivation is based on external motivators and rewards. Examples of extrinsic rewards are money, praise, accolades, and other external benefits. On the other hand, extrinsic Motivation, Internal reinforcements and rewards are the core of intrinsic motivation.

This chapter gave a detailed overview of theories of motivation by different authors. Two types of theories of motivation, namely, the classical theories of motivation and the modern theories of motivation, were identified and discussed.

The classical theories of motivation are ancient theories that were discovered ages ago but are still used; there are three well-recognised classical theories of Motivation, the Fear and Punishment Theory, the Monetary Reward Theory and the Carrot and Stick Theory. In contrast, the modern theories of motivation encompass theories of motivation that have been recently developed and are well known; the Morden theories of motivation include but are not limited to Maslow's Hierarchy of Needs, ERG Theory of Motivation, the Theory X and Y, the Herzberg's two-factor Motivation and Vroom's Valence Expectancy Theory.

A person's level of work and a person's level of tenacity, when faced with challenges and obstacles motivation, can either be intrinsic or extrinsic. Intrinsic motivation is subjective to individuals; internal reinforcements and rewards are the core of intrinsic motivation. Therefore, employees can be motivated by varied factors to complete a task, subjective to their internal reinforcements.

## **CHAPTER 4**

### **TECHNOLOGY, TECHNOLOGICAL WORKING SYSTEM, IMPACT OF TECHNOLOGY ON PERFORMANCE, VIRTUAL AND ONLINE OPERATIONS, IMPACT OF TECHNOLOGY ON EFFICIENCY.**

#### **4.1 Introduction**

This chapter focuses on the modern office emerging from technological advancements. The researcher will start by defining the concept of technology and its origin. Then further discuss how technology changes the office environment. The second part of this chapter will focus on the concept of virtual offices and their origin, technology's impact on performance, virtual or online operations, and technology's impact on efficiency.

#### **4.2 Concept Technology**

Technology can allude to techniques going from as simple as stone tools to complex genetic engineering and information technology that has emerged since the 1980s. The term technology comes from the Greek word *techne*, which means art and craft, and the word *logos*, meaning word and speech. The term technology was previously used to describe applied arts, but it is now used to describe advancements and changes affecting our environment (Slaton & Saraiva 20. 18:185). New knowledge has empowered individuals to create new innovative things, and alternately, numerous endeavours are made possible by technologies which help travelling to places they could not previously reach and by scientific instruments by which we study nature in more detail than our normal senses allow. , Furthermore, since most technology is applied to Science, technical history is therefore connected to the history of Science, and since technology uses resources, technical history is tightly connected to economic history and those resources; technology produces other resources, including technological artefacts used in our everyday life. In many cases, technological change affects and is affected by society's cultural traditions and is a force for economic growth, which is

a significant contributor to the development and projection of economic, political and military power and wealth ( Slaton & Tiago 2018:186).

#### **4.3 How Technology is Changing the Work Environment.**

Working outside of the traditional workplace is becoming routine in today's environment common. Telecommuting, telework, virtual office, remote work, location independent working, and home office are the words used to describe the phenomena. For most businesses, traditional work conditions have been the standard. The typical workplace entailed an employee travelling to a fixed location and doing job responsibilities there. This environment has allowed employees to collaborate in a single place to fulfil job responses. Managers might experience direct interpersonal communication, social engagement, and team-building initiatives when working in a typical workplace. (Aczel et al).

Ahmad (2014: 73-80) states that it had not been an easy move from a traditional old-fashioned workplace to a contemporary one. The battle to get user acceptance and approval of new technology was as difficult as maintaining an acceptable level of productivity and performance, among the issues businesses face. User acceptance can be difficult due to various factors, such as peers' views and opinions, influencing a person's attitude toward new technology. Employees' resistance to technological changes and the adoption of new practices might be linked to a lack of skills, abilities, or knowledge required to use the new technology in their jobs.

In knowledge-based work, the office atmosphere is critical for effective performance. It has been reported that workplace design and its use can account for up to 15% of turnover in a typical office setting. The indoor environment, such as acoustics and lighting conditions, as well as architectural and/or interior design, such as room layout, workstation enclosure, colour, and perspective, are all essential parts of office design. The defining aspects are significant for examining their impact on employee performance since the office layout is closely connected to the office type (Danielsson & Wulff, 2014:139–147). However (Jahncke & Hallman (2020:1) also state that performance may be strongly influenced by how

well the office layout supports privacy aspects, and few studies have measured performance objectively in different office types and addressed how much performance differs between different work areas. The flexible Activity Based Workplace is an office design that appears to be becoming increasingly widespread in today's workplace (ABW). Employees at the ABW do not have a set workstation; instead, they are expected to switch between several work areas/rooms depending on the task at hand, and if a task necessitates focus, for example, a location or room with little distractions might be chosen. On the other hand, an open area for communication might be used when work does not need concentration, and the focus is more on cooperation and the desire for connection with co-workers. Only 17 papers addressing the ABW idea were discovered in a recent evaluation, with only five research evaluated as good quality (Engelen et al., 2019; Jahncke & Hallman 2020:2).

According to Ugwu and Agha (2020:82), several organisational and technological issues hinder technology acceptance and utilisation. These characteristics include the size of the firm, its resources, managerial support, and its history of innovation. Organisations are limited in their ability to obtain critical technology resources due to a lack of funds. Aside from that, political and cultural constraints slow down the use of technology in the workplace. These also include a shortage of qualified employees. Because technical competence technology may seem new and unusual to certain employees who are not up to speed on technology, some employees may feel anxious about their jobs due to adopting new technology. This increases job alienation and reluctance to change, making technology adoption more challenging. One of the significant barriers to organisations adopting new technology in their offices is financial. While 70% of respondents agreed that the advantages of technology outweighed the costs, just 50% of firms could afford new technology, according to the statistics. This indicates that the other 50% of businesses cannot afford to equip their offices with the necessary technology, despite their desire to do so. This also means that if these companies want to buy new technology, they will need to raise finance or devise strategic strategies to get funding for new technology. Meanwhile, according to Pfano & Beharry (2016:376-

378), the greatest issue for organisations is figuring out how to use freshly developing technologies to their advantage (Ugwu & Agha, 2020:82)

When well-located, adequately furnished, well-equipped, and professionally staffed, traditional office space offers a professional environment and increases productivity. On the other hand, finding, furnishing, equipping, and staffing such a typical office necessitates a significant and long-term time and financial commitment. The new working style includes virtual offices, shared office space, and co-working. Virtual offices help make work more efficient, but they will never replace workers as the primary source of prayer in any firm. In workplaces, the human staff is still vital. Virtual approaches will never be able to replace them. The availability of money, time, and technological competence are all factors in the successful use of technology in today's office work environment. Technology has swiftly improved to the point that most tasks are now done digitally, posing a danger to the employment of those who are not technologically competent. Technology adoption may be costly, but if used correctly, greater job performance and productivity will lower all other office production and service expenses. The employment of technology is unavoidable in today's highly competitive world. It is not a wish, but a need, particularly in the office job of managers and secretaries, where data is input, processed, evaluated, and reported to help in the decision-making process, which is critical to the overall performance of any firm. (Ugwu & Agha 2020:82)

#### **4.4 Origin of Virtual Offices**

Large computers, only a handful of which had an internet connection, cumbersome wires, and big fax machines and copiers, were all common in early twentieth-century offices. Those were out of date in a little more than 15 years. Flat-screen televisions, wireless devices, and a cutting-edge conferencing system have displaced them (Pfano, 2016:13). Employees or workers in today's computational, technological world operate from a virtual location. In India, the mobile workforce, often telecommuting or remote workers, is a relatively well-known idea. Yes! Telecommuting increases the workforce's efficiency while lowering costs They

contribute to environmental protection. Many companies are training telecommuting programmers to attract new staff to work in a virtual setting. Today's labour market is tight, and organisations that offer flexibility are in high demand. Workplace flexibility is required by employers, employees, and end users. The ability to join a company's network from any place utilising hardware devices such as notebook computers, smartphones and portable devices has given rise to mobile computing and telecommuting (Mohite & Ulkarni 2019:1).

According to Jerry (2020:76-84), virtual office services originated as serviced offices in the 1960s and have since grown to include a broad spectrum of employees, physical space, digital storage, and communication services as technology has advanced. Customers pay a contract fee for these services, which may be bought individually, in bundles, or as part of a membership subscription. The concept is gaining traction among companies of all sizes, including sole proprietorships. Workers and freelancers may operate from a satellite office, home office, remote location, or even on the go using a mobile device, which is one of the critical advantages of a virtual office. At the same time, a company may give a solid home office to its clients and employees, complete with a receptionist, conference rooms, desk space, mailboxes, printing, and faxing at a permanent location owned and controlled by the company, a virtual office provider, or a third party. In addition, virtual office providers may supply digital capital in the form of cloud storage, web hosting, email, and other online-based services. Virtual offices impact office work design, and among the most recent technical breakthroughs, the internet has impacted office work design the most.

#### **4.5 The Concept of Virtual Offices**

A virtual office, also known as a virtual workspace, is a business location where workers operate outside a typical office or workplace. Instead, the individual worked from home or a place other than a traditional office. Although the concept of a virtual workplace is not new, it has gotten much attention in recent years. Some firm owners desired less centralisation and were more inclined to accommodate employee demands for telecommuting. However, the term "virtual"



does not only relate to computers; the notion is derived from computer-based technologies. In this sense, the term "virtual" originates in the computer industry. "In this sense, the term virtual originates in the computer industry. For example, virtual memory refers to when a computer appears to have more storage capacity than it has.

Similarly, a virtual office that assembles resources from various organisations appears to have more outstanding capabilities than it has. Ahmad (2014: 73-80) further states that a virtual office gives firms an actual address and office-related services without the cost of a long lease or administrative staff. In addition, employees that operate from a virtual office may do so from anywhere while still having access to services like a physical address, phone answering, conference rooms, and videoconferencing.

A virtual office, according to Jerry (2020:76-84), is a service that allows employees and business owners to work remotely by delivering a range of business activities through the internet. It also enables businesses to create and maintain a presence in the desired location without paying rent. A virtual office is a flexible workspace that offers organisations any combination of services, space, and/or technology without the upfront expenditures of purchasing or leasing a traditional office. Audio-visual equipment is available at the office. The internet, available on personal computers, iPods, and smartphones, allows people to work in virtual businesses from the comfort of their homes. This shows that the work design was transformed to digital so that occupations' contents, methods, and linkages met technological requirements. According to Ahmad (2014: 73-80), E-businesses were developed due to the use of the internet, and these businesses focus on design as they adapt to the dynamism of the online environment. The internet has made it possible to build virtual workplaces. Through the introduction of a virtual office or workspace design, technology has contributed to the moulding of the borders between home and work.

These issues were solved by the first virtual offices, which allowed firms to hire a professional address, a dedicated phone number, and a shared receptionist to

answer calls and take messages. Virtual offices have grown into a comprehensive solution, with fully furnished offices, boardrooms, meeting spaces, and workspaces, as well as a range of amenities such as mail forwarding, call answering, and administrative services, all accessible on an hourly, daily, weekly, or monthly basis. Virtual offices, which are often located in critical areas or vibrant business hubs, offer the professionalism and increased productivity of a traditional office without the costs of purchasing or renting space, furnishing, equipping, and staffing the office, or the inflexibility of long-term office rentals, equipment leases, or employment agreements. A new breed may acquire office or meeting space and/or administrative help through virtual offices, allowing for maximum productivity on very flexible terms and at low prices, freeing up capital and cash flow for company expansion. Evolving further from the virtual office concept, 'shared office space' or 'co-working space' is one of the fastest growing trends in how people work. While shared office space is essentially a virtual office shared by a diverse community of independent business owners, it delivers even more benefits, most notably a shared community network. Businesses of all sizes are discovering that a virtual office is an ideal solution, offering cost savings, increased productivity and exceptional flexibility required to succeed in today's dynamic and rapidly changing business world (Booi,2017:25)

#### **4.6 Impacts of Virtual Office on the Employee Performance**

According to Donohoe (2021:1), how your staff behave daily in your business will significantly affect your company's performance. Employee performance is determined by elements such as job quality, quantity, and effectiveness, as well as work habits. As a business owner, setting these expectations and checking them regularly is in your hands. Understanding performance indicators, employee performance evaluation procedures, and strategies to enhance performance can enable you to guarantee that your staff can meet your company's and customers' expectations.

Employee performance is defined by Donohoe (2021:1) as how your employees behave in the office and how successfully they do the tasks you have assigned to

them. In order to provide good value to consumers, eliminate waste, and run effectively, your firm often sets performance objectives for individual employees and the organisation as a whole. Performance can relate to the efficacy, quality, and efficiency of a task for an individual employee. For example, your salesperson may be required to make a particular number of calls to potential leads every hour, with a certain percentage of those calls resulting in closed sales. On the other hand, a manufacturing worker may be held accountable for product quality and hourly output. Individual performance has an impact on the performance of your team and company. If you have staff who cannot keep up or produce shoddy work, you may have to rely on other employees to take up the solar redone work. You may not be able to satisfy your clients if staff performance is inadequate, resulting in adverse effects on earnings, business reputation, and sales.

The effects of technology, according to Jerry (2020:78), are primarily shown in the work performance of office workers or employees. Compared to the efficiency of work in traditional offices, where direct supervisors evaluate in addition to timely compliance with mandatory reports, workers' performance on online platforms can be simply watched and analysed; the author further states that virtual directly impacts work performance. However, according to Pfano (2016: 376-384), having advanced office technologies improves managers' work performance because technology allows them to be more flexible. Because modern technology is frequently used to store and organise vital firm information, it must be carefully controlled. Therefore, technology must be relevant and appropriate to improve performance. This indicates that having access to a wide range of advanced technologies does not guarantee higher productivity; rather, it depends on how well the technology is used, how relevant it is, and how well it is suited to the tasks at hand.

Another element of technology that enables firms to achieve higher productivity and profitability is mobility, according to Jerry (2020:79). Unlike previous generations of desktop computers, modern personal computers and mobile technology such as mobile phones, laptops, and tablets can be carried by workers anywhere they choose to work at any time. Managers, for example, can

accomplish corporate tasks from home at any time. They have complete freedom to respond to and send emails at any time. In today's offices, mobile technologies can help with networking, communication, and marketing. Managers, employees, and customers may easily engage and connect through social media applications such as LinkedIn, Facebook, Skype, and Twitter using mobile technology such as smartphones and tablets. This easily accessible mode of communication benefits offices in terms of more efficient use of staff time, better customer service, and a more comprehensive range of products and services delivered (Pfano, 2016:376-377). This is feasible if employees are disciplined enough to use mobile technologies for official work or job functions. Mobile technologies have added a new dimension to advertising and marketing for businesses worldwide. If advertisements were only made through television and radio broadcasting in previous decades or centuries, advertisements are now easily accessed through mobile phones. However, because a large portion of the world's population uses mobile technology, advertisements through mobile technology are very deficient. Many clients are already exposed to corporate advertisements on their mobile phones via text messaging, mobile websites, and mobile applications (Jerry, 2020:79).

As a result of globalisation, offices are now involved in work that extends outside the four walls of the space. Many businesses expand their market internationally. Because technology facilitates global communication, it is ideal for offices that deal with international transactions. Humanity relied on business letters for communication before the invention of telephones and the internet. The traditional printed or typewritten business letters have all been replaced by electronic versions. Managers must not travel across countries to oversee the company's operations and meet with stakeholders. In today's global corporate environment, significant utilisation of technology is essential. In this regard, technology aids in conserving valuable resources such as time and money. In today's highly competitive business world, empirical studies have predicted that businesses that successfully integrate the latest tactics and technological innovations into their

work environment will do considerably better than those that do not. Jerry (2020:79-80).

The analysis of data surrounding managers' usage of virtual in offices and employees' perceptions of the value of technology in the workplace found essential findings in this study conducted by Pfano & Beharry (2016:81). The results of the survey among the respondents from the 67 businesses studied are summarised in the table below. In addition, the author published a recent study with noteworthy findings that can be very useful in adopting technology in offices. This research stresses that those aged 35 and up are already adept at using technology in the workplace, as 90 percent of managers use it, while only 80 percent are aged 35 and up. According to Donohoe (2022:1), your company has various employee performance evaluation tools to select from, and it may be beneficial to use multiple approaches to gain a complete view of individual and organisational performance.

Here are a few examples:

**Management desired outcomes:** This type of employee performance evaluation focuses on management and employees creating goals together. It offers the benefit of setting clear expectations for how people should execute their jobs and using deadlines to track progress toward these objectives.

**360-degree feedback:** This strategy uses feedback on an employee's performance from several people with whom the employee interacts. Co-workers, other supervisors, and anybody else to whom the employee reports can provide perspective on the person's talents and character in addition to having a direct supervisor look at work-performance measures like effectiveness and efficiency.

**Scale and rating methods:** A variety of employee performance-review choices assess an employee using lists or scales of desired attributes. Employees can be evaluated from best to worst performance to quickly discover individuals who are candidates for higher positions and those who require additional training.

**Employee self-evaluation:** Often used in tandem with another assessment approach, employee self-evaluation allows employees to reflect on their work performance and identify their strengths and flaws. The problem with this strategy is that employees may find it difficult to be subjective about themselves.

#### **4.6.1 Advantages of a Virtual Office**

The study conducted by Jerry (2020:80) proposes the following Small Business Advantages of a Virtual Office:

1. A professional business address is the first benefit of having a professional business address for a small business or start-up. It is vital to project professionalism, which you will not be able to do if you tell your clients and potential customers that you work from your kitchen table or a little computer desk at home. Only having a post office box for your business image is worse than using your home address as your company address. Having a professional firm address in a well-known office location shows your clients that you are serious about your business (Jerry, 2020:80)
2. The second and equally significant benefit is the cost savings associated with not having to pay rent for actual office space and the additional costs associated with a traditional office, such as furnishing it and purchasing office equipment and telephone systems. Having a virtual office at a business centre saves you money on office expenses and time and money on commuting to an office every day. Consider the value of your time. If you commute two hours per day, you could be working on your business and earning money for ten hours per week.
3. The third most crucial advantage of having a virtual office is that it lowers the risk of starting or running a small business. You have fewer non-operational-related liabilities because you are not compelled to make all capital expenditures on furnishings and office equipment. This lower risk could be advantageous if your small business wants to diversify or expand into other areas. To provide the appearance of having a physical presence

in another market, you can quickly set up another low-cost virtual office option.

4. Another benefit of having a virtual office is the opportunity to work whenever and wherever you want. Instead of being confined to a single location all day, you can do your regular job activities from home, your business, or while on the road. This is especially true if you utilise a VoIP virtual office service, which gives you a phone number you may call from anywhere in the world. In addition, you have access to boardrooms and conference rooms in the same building where you receive your mail when you set up your virtual office in a business centre like Telsec. Customers can see this information on your website, business cards, and other items like brochures and letterheads. You can also use the photocopiers for free and receive incoming faxes at a modest cost per copy.

Some define a virtual office as any location where a person uses a computer to complete a task while being connected to a virtual office provider for mail and phone services, according to Jerry (2020:76-84). These are excellent choices for someone who commutes to and from work from a virtual office. While working from a remote location, even virtual employees will use a company email address and, in certain situations, company phone extensions at the virtual office provider. Working from a virtual office may have disadvantages for some people in this field. Jerry (2020:76-84) Identified the following as advantages of virtual offices:

- Saves time
- Improves communication
- Save valuable Resources/Reduces cost
- Improve productivity and work performance

#### **4.6.2 Drawbacks in a Virtual Office Work Environment.**

Businesses with workers working from virtual offices from their homes can operate from various places. Employees are not required to report to a home-based office

or meet with co-workers. As a result, for firms requiring a physical location and everyday physical activity, A virtual office may not be the greatest option if you need face-to-face contact to get your work done.

Jerry (2021:8) states that businesses with workers working from virtual offices from their homes do so in various places. However, there is, in essence, no home-based office for employees to report to or meet with colleagues. As a result, a virtual office may not be the ideal choice for organisations that require an actual physical place and daily human contact to get the job done. According to some, he further explains that one disadvantage of working from a virtual office is the lack of social connection among employees. While others may dismiss this disadvantage, extroverts who thrive on human interaction may find it particularly difficult. This is because, in a virtual office environment, human interaction is difficult to come by unless the employee goes to a local library or a coffee shop to receive that social interaction.

#### **4.6.3 Disadvantages of working in virtual offices**

The disadvantage of working from a virtual office, according to Jerry (2021:81), is the distractions and, sometimes, a lack of drive. Morale and productivity can suffer as a result of this. On the other hand, for someone who is self-disciplined and prefers to work independently with little supervision, a virtual office setting can boost productivity. In addition, employee communication concerns are sometimes seen as a disadvantage of working in a virtual environment. Email, texting, social media, and even teleconferencing differ from face-to-face conversations or meetings. We frequently overlook the small nonverbal clues that written messages lack. This can lead to misunderstandings or misinterpretations of one's comments or notes, as well as a delay in involvement that could have been stated more promptly over the phone. Employees will become less of an issue as they become aware of these concerns (or, at the very least, acquire acclimation to being better nonverbal communicators).

Because virtual offices likewise operate their data and software as a service via a cloud server, some people refer to them as cloud offices, according to Jerry,



2021:81. Users are drawn to a virtual workplace for two reasons. To begin with, the monthly cost of a virtual office is far less than that of a traditional office. After all, it does not require any maintenance or upkeep, and it does not require any personnel. A virtual office can also be rented month-to-month, allowing the user more flexibility as their company grows (no waiting for a lease to expire or incurring the cost of a broken lease). On the other hand, a virtual office can range from \$50 for a membership fee to \$250 or more per month for essential services on a month-to-month lease, making them more expensive.

A virtual office can also give a mailing address, phone answering, and videoconferencing services, among other things. As a result, a small business may appear larger than it is. It can also provide users with a physical address (or multiple addresses) where they can meet with clients. A virtual office user's address can sometimes give a sense of grandeur, especially if it is a prominent location or street. Using a professional phone answering service can have the same result. Some of the services offered by a virtual office arrangement need planning ahead of time. For example, several packages provide restricted access to conference rooms and teleconferencing and videoconferencing capabilities. At night and on weekends, access to virtual workplaces may be restricted. Users may find the lack of adjustability limiting and irritating. Working from home can also lead to distractions, so that some people may be less productive in a virtual office setting (Jerry, 2021:81)

The cost barrier is one of the most significant barriers to enterprises adopting new technologies in the workplace. While 70% of respondents believed that the benefits of technology outweighed the costs, just 50% of businesses could afford new technology, according to the survey. This shows that the other half of firms cannot afford to equip their offices with the essential technology, even though they recognise the necessity. This also means that if these companies want to buy new technology, they will have to raise money or make strategic plans to fund it. The term "virtual office" refers to the capacity to work using ICTs both in and out of the office and during business hours. However, the virtual office does not have to be

limited by time, as ICTs allow people to work at any time, including outside of business hours (Messenger and Gschwind, 2016:195–208).

#### **4.7 Workplace Stress in the Virtual Office – Threats to Employees.**

The study conducted by Stich (2020:4 ) indicated how virtual offices impact three sources of workplace stress intrinsic to the job itself (Cooper et al., 2001): (1) interruptions, (2) workload, and (3) the work-home interface.

##### **4.7.1 Interruptions**

Employees require a significant amount of time to handle their numerous demands. Unscheduled interruptions in virtual and traditional offices make time challenging to come by. Physical proximity in traditional workplaces enhances the chance of co-workers stopping by on their own. Although these unexpected contacts can be beneficial in that they allow vital information to be communicated, they are mainly unfavourable in that the time wasted must be compensated for. Employees in typical offices may be further disrupted by background noise and activities that obstruct their performance and, as a result, goal achievement. As a result, disruptions in typical offices are often harmful to employees' health. Virtual offices increase the number of ways employees can be disturbed (Keller et al., 2019; Stich, 2020:4).

Email notifications, incoming instant messages, phone calls, and system-generated notifications are all common causes of interruption in virtual offices. Employees are more likely to be interrupted by ICTs than in person. Even in a quiet office with no co-workers, one can be 'virtually tapped on the shoulder' and find the encounter as distressing as a physical interruption. Employees find it tough to avoid these ICT disruptions because most keep their email inboxes open all day. Even though emails are supposed to be asynchronous, they are handled in real-time, with most of them being acknowledged in less than six seconds. Following the interruption, employees can take up to fifteen minutes to resume their primary activity. Employees are projected to lose 28 minutes each day due to such interruptions, which contributes to feelings of job overload. Employees can be further interrupted by family members and the need to deal with home needs in the

context of teleworking. Interruptions in virtual offices have been linked to negative mental and physical health consequences, including higher stress levels, a higher risk of burnout, and lower sleep quality. Employees may encounter increased workloads as a result of disruptions, as detailed in the next section (Stich, 2020:4 )

#### **4.7.2 Workload**

Long before virtual offices, the workload has been a source of working stress (Bowling et al., 2015). It can be stressful in either an overabundance (overload) or a deficiency (underabundance, boredom, or a lack of challenge) state. The workload can become excessive in traditional offices when time is lost due to interruptions, as discussed in the previous section, or because tasks are more easily assigned to visible employees. Employees with Sick Building Syndrome (those who appear healthy but are negatively affected by office buildings) are more likely to be overworked due to higher absenteeism rates. When employees are required to stay at work despite severe downtimes or a lack of activities or clients, work underload can result (Stock, 2016; Stich, 2020:4).

According to Stich (2020:4), one of the critical advantages of virtual offices is that vital business information can freely move between employees, according to research conducted by others. On the other hand, employees may experience information overload due to this massive data transmission. Sending a message to several recipients in a non-virtual office necessitates the production of multiple letters or carbon copies. Email 'copy copies' are done quickly in virtual offices, resulting in uncontrollable volumes of email. While employees are on the move, in meetings, or at home, emails continue to arrive and pile up. With the addition of new recipients, tasks, updates, and requests, email threads continue to grow in size and complexity. It is believed that, on average, 29 minutes are spent each day reading emails, not to mention responding to them. Furthermore, most employees spend time spring-cleaning' their email inboxes, much like they would their desks if letters piled up there. As a result, employees are increasingly concerned that their information overload is out of control and outpacing their coping ability. (Yin et al., 2018). Employees in virtual offices also risk being "out of mind" and thus missing

critical communication, potentially depriving them of vital information. Employees may be just as stressed by information underload as they are by information overload. Fears about missing out or failing to keep up with one's information load can also lead to a need to stay continually connected and available, as discussed in the next section. The work-life balance Having to handle work and personal life is a significant source of stress. The ability of traditional and virtual offices to construct and cross barriers between work and home roles differs. Employees in traditional offices work at specific locations and hours, allowing for the development of job boundaries. However, because moving from one character to another necessitates significant psychological effort, these role borders are difficult to overcome. Furthermore, the inability to bring work home increases the likelihood of having to stay at work longer. Given the limit of time available, the longer the job hours, the more work-life conflicts occur (Stich, 2020:5).

According to Stich (2020:5), virtual workplaces make it simpler mixing home responsibilities. Unfortunately, this integration encourages employees' work to spill over into their personal lives, allowing it to escape the confines of office buildings and hours. Employees are commonly 'chained' to virtual workplaces, resulting in a sense of constant connectivity and problems since they are more prone to stop personal activities from responding to work requests. Increased stress, emotional exhaustion, and the possibility of burnout, as well as decreased energy, are all possible outcomes. These consequences are reduced when people wish to integrate rather than segment work and home obligations (Wright et al., 2014) or are already highly engaged (Derks et al., 2015). In addition, the number of ways employees can be interrupted increases with virtual workplaces (Keller et al., 2019). Email notifications, incoming instant messaging, phone calls, and system-generated notifications are all familiar sources of interruption in virtual workplaces. Employees are more likely than in previous years to be interrupted by ICTs. Even if one is 'virtually tapped on the shoulder' in a quiet office with no co-workers present, the experience can be as disturbing as an interruption (Stich et al., 2017).

## **4.8 Threats to Organisations and Office Managers from Workplace Stress in the Virtual Office**

Virtual offices pose three concerns to employees, according to Stich (2020:5): increasing interruptions, workload, and trouble managing the work-home interface. This part now goes over three concerns that virtual offices pose to businesses and office managers: (1) changed social relationships, (2) deteriorated communication and (3) deviant behaviour.

### **4.8.1 Changed social relationships**

Some major corporations, such as Yahoo!, Bank of America, and IBM, have recently decided to return telecommuters to the workplace to establish social interactions and boost creativity (Spector, 2019). Many employees preferred working remotely to working in the office, which these firms saw as threatening collaboration and morale (Khazanchi et al., 2018; Rockmann and Pratt, 2015). The office can be a significant source of stress for certain employees. Virtual offices, in their opinion, can be a method to 'leave' the office and reduce emotional tiredness caused by social interaction, office politics, office interruptions, and the general office environment. When employees cannot claim and modify their workspace, for example, the virtual office is the last location they can show their territoriality. Employees may be enticed to hide in virtual offices, resulting in a shift in the organisation's office interactions. Employees that work in virtual offices have their relationships altered first, as the experience can be socially isolated. Being 'out-of-sight' for remote workers often translates to being 'out-of-mind.' Employees staying in the office while their co-workers work remotely alter their relationships. They have a lower level of job satisfaction and poorer social interactions. They are also likely to have more work overload due to dealing with workplace visitors or choosing to handle duties themselves (Stich, 2020:6).

Stich (2020:6) furthermore states virtual workers may be frustrated since they do not have access to the same work-life benefits as their colleagues who work remotely. Furthermore, for employees whose manager works remotely, these sentiments of being "left behind" in the office are accentuated (Rockmann & Pratt,

2015). Subordinates who are left at work in such situations face higher work overload, a weaker work climate, and increased job discontent. Even if all employees stayed in the same office building, their reliance on ICT could lead to fewer social contacts. Employees can be on the same floor but communicate online rather than face-to-face, a situation known as "alone together." Employees' stress levels are reduced, and their physical activity and sense of happiness are increased when they are forced to engage face-to-face from time to time (e.g., through an email ban). Overall, virtual offices alter social ties for all employees, whether in the workplace or not. This raises questions about how businesses handle social interactions within their workplaces. The following section looks at how virtual offices affect communication.

#### **4.8.2 Poor communication**

Communication is critical to the success of any business. Poor communication, or communication harmful to employees, can thus pose a hazard to organisations (e.g., bullying - Branch et al., 2013). On the one hand, face-to-face contact is thought to be the most efficient and prosperous communication (and is still the most common in traditional offices). On the other hand, it may, however, be poor in a variety of ways. For example, because of the resources required to focus, face-to-face conversation is made more difficult, stressful, and unfriendly in the presence of noise or crowded offices (Khazanchi et al., 2018). In addition, because the face-to-face conversation is difficult to record, it is a popular venue for uncivil, harassing, and bullying behaviour.

On the other hand, communication in virtual workplaces (i.e., computer-mediated communication) is challenging to master because it follows a specific etiquette (Whitty and Carr) and necessitates specific competencies. Employees in virtual offices are frequently under-equipped and under-trained to communicate. As a result, communication in these contexts is generally weak. For example, email is a common cause of disagreements and misunderstandings. Recipients must decipher messages without senders, visual signals, or opportunities for clarification. Messages can be misinterpreted in this impoverished environment,

resulting in ambiguity, inaccuracy, overload, or conflict escalation (Stich, 2020:7). The phrase 'cyber incivility' describes poor and rude virtual communication. For example, emails with profanity, all capital letters, and many exclamation marks are more likely to be aggressive. The most typical kinds of antagonism in email interactions are intimidation and insults. Increased blood pressure, stress, illness, lousy effect, and poorer energy levels have all been linked to cyber incivility (Giumetti et al., 2013; Stich, 2020:7).

The word "cyberbullying" has been used to describe the spread of bullying and harassing actions in virtual offices. Cyberbullying, in contrast to cyber incivility, entails adverse experiences that are repeated and committed by a more powerful person. Cyberbullying, according to research, may be even more harmful to employees than traditional bullying (Coyne et al., 2017; Ford, 2013). Indeed, virtual offices make it more difficult for bullied employees to psychologically detach because the negative experiences can occur at any time and from any location (. Anxiety, emotional weariness, mental stress, and stress have all been linked to cyberbullying (Snyman and Loh, 2015). As a result, virtual offices open additional avenues for communication to be harmed and for poor communication to spread. As a result, virtual workplaces present additional avenues for communication to deteriorate and for poor communication to spread. The following section claims that virtual workplaces allow deviant behaviours to spill over and expand like physical offices do (Stich, 2020:7).

#### **4.8.3 Deviant behaviours**

Employee deviance is defined as a substantial and voluntary breach of an organisation's policies, rules, or processes that costs the company much money. Employee deviance encompasses activities like stealing, sabotage, taking excessive breaks, withholding job effort, or drug and alcohol misuse, in addition to bullying, described in the preceding section. Employees who are in contact with the public (e.g., offering them drinks, declining their requests, exercising physical control over them) or working alone in the office are more prone to engage in such behaviour. Employees may also act aggressively if their territory is violated (for

example, when their desks are claimed by others – as in flexible offices – or when their belongings are borrowed or transferred) (Fennimore, 2020). Employee deviance is referred to as 'cyber deviancy' in the context of virtual offices. Employees can destroy and steal organisational property in traditional offices, but virtual offices provide them with the ability to harm and steal their employers' virtual property. Stealing data and intellectual property, hacking into internal or external infrastructures, gaining access to colleagues' or supervisors' computers and accounts, downloading unlawful content (i.e., piracy), gambling, or browsing pornographic websites are all examples of cyber deviancy (Stich, 2020:8).

Employees in virtual workplaces may be tempted to utilise the internet for non-work purposes, a habit known as "cyberloafing": work-related internet surfing, personal email use, and interactive personal activities are all examples of cyberloafing. Employees working remotely are more likely to engage in cyberloafing since it is easier for them to avoid being discovered (O'Neill et al., 2014). These harmful practices are exacerbated by the fact that employees may not perceive them as such. Employees in virtual workplaces may be tempted to utilise the internet provided for non-work purposes, a habit known as 'cyberloafing.' Non-work-related internet surfing, personal email use, and interactive personal activities are all examples of cyberloafing. Employees working remotely are more likely to engage in cyberloafing since it is easier for them to avoid being discovered (O'Neill et al., 2014). These harmful habits are exacerbated by the fact that employees may not perceive them as such and may rationalise them.

Conversely, cyberloafing is classified as minor production deviance (Weatherbee, 2010) and can lead to dismissal (Drouin et al., 2015). These abnormal actions can be viewed as coping mechanisms in the face of professional stress. Employees may participate in cyberloafing to cope emotionally with cyberbullying and mentally disengage from work (Andel et al., 2019) or to divert themselves from stressors they encounter in virtual workplaces (Andel et al., 2019). (Tarafdar et al., 2019).



#### **4.9 Virtual Offices for Health and Well-being**

Employees and their businesses are facing new dangers due to remote workplaces. Employees may endure more interruptions, a heavier workload, and trouble managing the work-home interface. Changes in social interactions, communication, and deviant behaviours threaten the way corporations used to operate in traditional offices. Virtual offices expose employees and their companies to new forms of job stress. These dangers, on the other hand, may be addressed by design and training. The findings from information systems and organisational behaviour on workplace stress in virtual and traditional offices are summarised in this study. To welcome architectural and engineering academics into this examination, this review emphasised the responsibilities of workplaces such as offices and home offices. Although the focus of this study was on workplace stress as a negative phenomenon, it is essential to remember that virtual-offices have the potential to positively challenge employees (Tarafdar, Cooper, et al., 2019) and thus be transformed into places where employees can both feel and perform well.

According to Zhang (2016:40), virtual offices were created to improve organisational performance. Many businesses and organisations have faced a variety of various issues and policies. The author investigated how people's savings changed in the direction of job happiness. He was described in two parts: the first was expressing the changes in the virtual office from four perspectives: communication, social interactions, achievement, and acknowledgement of work-life balance; and the second was capturing the influence of work life as reflected by job satisfaction. The author concluded that changes in contact with co-workers, social relations of accomplishment acknowledgement, and a balance in virtual workplaces could substantially impact employee job satisfaction. On the other hand, employees who work on a virtual network are telecommuting, teleworkers, or teleworking. Information can be used to replace work-related travel.

According to Zhang (2016:43), it is natural for employees to see disparity in their bosses' appreciation of their accomplishments. They often believe that because

they work outside the office, their efforts are not fairly or reasonably recognised or rewarded by the organisation, and that, as a result, their career chances are limited compared to others who work in traditional offices. Because supervisors have fewer opportunities to observe employees' efforts and contributions to the task and a lack of knowledge of virtual employees, moving to a virtual office will likely harm employee achievement recognition. Employees who work in a virtual office also worry about being "out of sight and out of mind" regarding awards. Virtual employees say their managers perceive them as less devoted to their jobs, are allocated less visible assignments, receive less feedback and mentoring, and receive even less career help. This contributes to the feeling of insufficient achievement acknowledgement (Zhang 2016:43).

However, according to Zhang (2016:43), transitioning to a virtual workplace will negatively impact employee achievement recognition. Employee job satisfaction would be strongly influenced by changes in accomplishment recognition in virtual offices. Work-Life Harmony Employees appreciate the flexibility that a virtual office affords. However,, employees must balance work and personal responsibilities to profit from such a reward. Virtual offices, according to researchers, would blur the lines between business and personal life. The distinction between business and personal life is not perfect, but it does help to keep influences from one side flowing to the other. Such a distinction between work and life would be crucial for successfully navigating the possible conflicts arising from everyone's many roles in work and life. For example, employees who work from home are more likely to balance competing demands on their time, attention, and energy. Virtual employees strive to resolve such conflicts, which adds a new degree of complication.

Consequently, it is logical to assume that employees who work from home will struggle to strike a work-life balance. Another benefit of separating work and life is changing roles as a buffer. Individuals may become bored, demotivated, or even stressed after playing a specific position for a long time. The separation of work

and life allows the individual to play in a different setting and take a vacation from their previous function. Individuals working in a virtual office will find it difficult to distinguish between jobs and infectious affect both sides. For example, suppose an employee has been exposed to an aggressive work environment for a long time. In that case, it will be extremely difficult for him or her to avoid spilling over the aggressiveness from work into his or her personal life because work and personal life are in the same physical setting, which will have a significant impact on family relations. Such family relationships would likewise have an impact on his or her profession. As a result, the difficulties of balancing work and life for virtual office employees will impact their job satisfaction. As a result, the author proposes the following hypothesis: The shift to a virtual office will negatively affect employees' work-life balance. "The change of work-life balance in the virtual offices would significantly predict employees' job satisfaction" (Zhang 2016:43).

#### **4.10 Impact of Technology on Job Satisfaction**

According to Smith et al. (2018:2-9), job satisfaction is the degree to which an employee enjoys or dislikes his employment. It expresses the degree of agreement between one's job expectations and the incentives offered by the employer. Because Job Contentment eventually affects one's general life satisfaction, the nature of one's work environment is a significant component of life. As a result, job satisfaction is the result of a variety of employee attitudes. These attitudes are related to the job in a narrow sense, with such specific variables as wages, employment supervision, working conditions, social/human relations on the job, prompt grievance resolution, and fair treatment by the employer. However, a more thorough approach necessitates including Inter and Intra Personal variables before a whole picture of job satisfaction can be obtained. Employees' age, health temperature, desire, and level of aspiration should all be considered. Furthermore, his family relationship, social standing, recreational outlets, organisational engagement, and other factors have a role in job happiness. Job satisfaction is an essential criterion for the success of an organisation, and it is closely associated with job turnover and life satisfaction. Using new technologies

such as Computer-Aided Manufacturing (CAM), Virtual Reality (VR), Expert Systems (ES), and the Internet can give companies an edge. New technologies can result in employees "working smarter" and providing high-quality products and more efficient customer service. Companies that have realised the most significant gains from new technology have human resource management practices that support the use of technology to create what is known as high-performance work systems. Work, training, programs and reward systems often need to be reconfigured to support employees' use of new technology (Smith et al. 2018:2-9)

#### **4.11 Technology's Impact on Productivity**

According to Smith et al. (2018:2-9), performance is defined as the completion of specific established requirements of correctness, completeness, cost, and time. The use of technology within ethical bounds, as well as improvisation in individual and collective performance, are both beneficial to the organisation. On the one hand, technology innovation reduces employee effort; on the other hand, the number of employees required to complete a task decreases, lowering job chances. Human resource management departments use innovative technologies to monitor and analyse employee performance. To keep up with the market trend, the HR department uses innovative technology to enhance efficiency and manage human capital. Two current technology trends affecting HR are outsourcing and an emphasis on the value that HR delivers to the organisation. The demand for enhanced service performance has driven a technological trend toward more robust, integrated, and scalable system components.

##### **4.11.1 Technology's impact on productivity growth**

Productivity is one of the most frequently studied measures of long-term economic prospects, according to Smith et al. (2018:2-9). Rising productivity is the key to achieving long-term increases in living standards. Although technological advancements are the only source of long-term productivity gains, a variety of temporary factors can alter actual and "measured" productivity. For example, during periods of high demand, workers may work more, and businesses may use their capital assets more intensively by running factories for extra hours; both

variables can cause assessed productivity to be too high in comparison to actual technological advancement. Similarly, during periods of high demand, productivity can grow as firms take advantage of higher returns to scale; however, others argue that this effect is temporary and should be neglected when assessing long-term technical progress.

#### **4.11.2 Technology's impact on work-life balance**

Work-Life Balance is a comfortable condition of equilibrium reached between a person's principal priorities of their professional position and their lifestyle, according to Smith et al. (2018:2-9). Put another way, the obligations of a working individual's employment should not obstruct his ability to enjoy a fulfilling personal life outside the workplace. We now have a plethora of potentially labour-saving technology equipment that we have thoroughly embedded in our everyday activities, but one obvious issue remains: to what extent do such advancements enhance rather than decrease effort and stress? New technology can enable us to work faster and more efficiently, and it can also facilitate flexible and remote working, such as working from home and preparing quick presentations and reports using cell phones rather than computers and laptops, but it can also mean that we can never truly disconnect.

## **CHAPTER 5**

### **ERGONOMICS, THE IMPACT OF ERGONOMICS ON PERFORMANCE, THE IMPACT OF ENVIRONMENT ON PERFORMANCE, THE ROLE OF LEADERSHIP / MANAGEMENT ON EMPLOYEE PERFORMANCE, AND THE IMPACT OF UNSUPERVISED ADMIN OPERATIONS.**

#### **5.1 Introduction**

Ergonomics, also known as the human factors in engineering, according to Kroemer & Kroemer (2016:2), is a neutral field that takes no sides, neither for employers nor employees. It is neither a philosophy, opinion nor a trend; it is neither for nor against progress. Instead, it is a scientific study and technology that focuses on the interaction between processes, goods, and systems and the people who use them. Another way of expressing this is to state that ergonomics creates devices, systems, and surroundings designed around the human rather than forcing the human to adapt to the machine. This chapter will give an overview of the concept of Ergonomics, the impact of ergonomics on performance, the impact of environment on performance, the role of leadership/management on employee performance, and the impact of unsupervised admin operations.

#### **5.2 A Brief History of Ergonomics**

According to Patel & Karmakar (2014:1), Ergonomics came from the design and operational issues of technological advancements in the previous century. It arose from the same historical dynamics that gave birth to other fields like industrial engineering and occupational medicine.

Patel & Karmakar (2014:5-6) explain that we either change or restructure the task's pieces or alter the higher-level variables. For example, we might consider the type of human-computer dialogue used to improve a data input process. We might discover that some portions of the conversation trigger the system to send out faults (e.g., when the operator mistakenly reverses two numbers in a code, the system recognises it as a different code rather than rejecting it). Alternatively, we

might discover insufficient rest times or that most errors happen during the night shift. To improve a task, we must first determine the task's level (e.g., a repeated physical handling task), the next level down (the weight and characteristics of the load and the container), and the following level up (the weight and characteristics of the load and the container) (the workload and work organisation). We can restructure the task from the bottom up (e.g., use lighter containers and stabilise the load) or from the top down (e.g., introduce job rotation or longer break times), or we can do both. At the same time, we can examine extraneous or environmental elements at the task level but outside of it, factors that degrade performance as well (e.g., slippery floors in the lifting example or bad lighting and stuffy air in the data entry example). Finally, we monitor the task over time to detect changes in system performance after we have modified it and analysed the gains in task performance.

### **5.3 The Concept of Ergonomics**

According to Kroemer & Kroemer (2016:2), ergonomics is also known as human factors engineering in the United States. Although identifying human engineering jobs as one or the other can be a simple matter of judgment, distinctions between "macro ergonomics" and "micro ergonomics" are frequently noted. Designing a public transit system or a manufacturing facility, for example, would be considered macro ergonomics, as would sketching a company's organisational setup, considering concurrent technologies, staff relationships, and other socio-technical factors. Making a pencil sharpener or a toothbrush more user-friendly and straightforward to use, on the other hand, would be considered micro ergonomics. Among all, designing a light pen or a computer mouse entails more than just considering hand size and mobility, so labelling human engineering jobs as micro- or macro ergonomics may simply be semantics. (Workstation)

Kroemer & Kroemer (2016:1-2) states that an office design takes the form of macro- and micro-ergonomics; it includes large-scale projects such as the layout of entire office buildings, medium-scale projects such as laying out independent workstations, and smaller-scale projects such as designing and placing work

station-related components such as chairs, desks, computers, and even your input device. The person who is trained to do this conceptual design is an ergonomist. Their purpose is to set up the office in such a way that it:

- Improves people's physical and mental well-being
- Simplifies work
- Enables people to function efficiently and safely

Furthermore, Kroemer and Kroemer (2016:1-2) explain that office design has evolved substantially during the last decade. The term "office" can now be used to describe both a traditional brick-and-mortar building—complete with cubicles, office plants, an executive floor with floor-to-ceiling windows, and a 9 to 5 work environment—and a local cafe where an individual worker is telecommuting via laptop or cell phone while sipping a delicious latte.

With today's massive changes in how businesses are conducted, office ergonomics has expanded far beyond the traditional office. For example, consider how some organisations have completely abandoned concrete block office buildings; a company that does all its business online may be able to avoid rent/lease, building maintenance, and other costs by allowing all workers to work from home. The advantages of working from home are obvious: no long and inconvenient commutes, flexible work times, a casual dress code, and a comfortable couch or lounge chair and office workstation. On the other hand, the ergonomic challenge is to teach the remote worker how to adapt ergonomics to their workstation—whether a home office, a coffee shop, or a poolside lounge chair—and reap the benefits of a safe, efficient, and enjoyable work environment. Improved productivity, efficiency, safety, acceptance of the resulting system design, and—finally—improved human life quality are all indicators of the success of ergonomic efforts. This is a huge accomplishment (Kroemer & Kroemer, 2016:3).

Apart from an automated factory, for instance, the office is a working system entirely dependent on humans: no work gets done without people. As a result,



ergonomics emphasises the human as the essential component of the workplace and tailors the workplace to the individuals. This human-centred design necessitates understanding the office's personnel features, such as physical measurements, capabilities and limitations, and preferences. Ergonomics is not a "new" discipline but is based on more than a century of physiological, psychological, and engineering observation and research. The risk factors include higher cholesterol levels, wider waistlines, cardiovascular illness, and metabolic disease (Kroemer & Kroemer,2016:4).

## **5.4 Components of Ergonomics**

### **5.4.1 Human components of ergonomics**

A human species is a physical object subject to the same physical laws as other live and inanimate objects. At this level, ergonomics aims to improve the interaction between the body and its physical surroundings. This entails ensuring that physical space requirements are satisfied (using anthropometric data) and that internal and external forces operating on the body are not damaging. Ergonomic issues frequently emerge because, while the operator can do the work, the effort necessary overburdens the body's sustaining and supportive mechanisms, resulting in tiredness, injury, or errors. The three primary effectors are the hands, the feet, and the voice. More generally, the musculoskeletal system and body weight can be regarded as effectors – no purposeful physical activity of the limbs can be carried out without maintaining the body's posture and stabilising the joints (Patel & Karmakar, 2014:6).

The senses are the organs that allow us to be aware of our surroundings. Sight, hearing, touch, taste, and smell are the five senses that humans are supposed to have. Although a sense of balance and body position in space and a sensation of the passage of time are some of the less problematic choices, the existence and nature of a 'sixth sense' remain contested. The most significant senses for ergonomics are vision and hearing, while scent is vital for spotting leaks, fires, and other hazards. Although vision and hearing are discussed individually at an introductory level (as here), most people use a mix of senses to complete a task.

Hearing is often used to guide vision: a young baby will move their head to fixate on a rattle put to one side. Touch is frequently used to supplement vision. When we come across a new thing, we might hear someone say, "Let me see that," while reaching for it. In this case, 'see' means 'see and touch' (Patel & Karmakar 2014:7).

Centralised procedures require energy and information to perform our work operations. Physiological systems offer energy to active muscles while also removing waste. The brain is an information processing centre that houses low-level programs that regulate basic sensor-motor work activities and higher-level cognitive processes that enable work planning, decision-making, and problem-solving. The human operator might be considered both a user and an energy supplier. In order to estimate workers' capacity for physical labour and examine the elements that influence work capacity (such as climate and individual differences), a fundamental grasp of these basic processes is required in work design (Patel & Karmakar 2014:7-8).

Information is gathered by the senses, joint and muscle feedback, and memory. Modern techniques represent the brain as a computer-like information processing system, which is a helpful analogy for focusing attention on the types of programs that underpin human information processing, the system's limitations, and the situations in which it can fail. The ramifications of this method for information design are particularly intriguing. It poses how to best design job information content consistent with the human information processing system's information gathering and storage features. Although the computer comparison has some merit, it is evident that people process information in many ways, unlike computers. Aside from the cognitive aspect, humans thrive at tasks like identifying faces and classifying events based on partial data, whereas computers excel at numerical computation and logical problem-solving. Computer and human information processing systems differ structurally as well. In a computer system, memory and processing (the CPU) are separate, yet in humans, we can almost think of processing as the active component of memory. According to an ergonomic approach, the strengths of each of these information processing

systems should be exploited to complement the limitations of the other (Patel & Karmakar 2014:8).

Finally, only if the individual is adequately motivated can energy and information lead to purposeful labour action. Motivation is the force that guides conduct and is viewed as a helpful process here. Some think motivation is more closely related to occupational psychology than ergonomics. Although this is true, an ergonomist cannot overlook such a critical factor of human behaviour: no working system can function in a goal-directed and purposeful manner unless the human component is also goal-directed and meaningful (Patel & Karmakar 2014:8).

#### **5.4.2 Machine components of ergonomics**

Any manufactured equipment that increases work capacity qualifies as a "machine." The automobile driver or machine operator represents the prototype human-machine system in ergonomics, where the machine component and the links between the person and the machine (displays and controls) are evident. Recent visible advances in information technology have turned most of ergonomics' focus to information systems in which the work system is abstract and does not have a distinct spatial location. A machine like this is a piece of software on a computer network. The local environment might be the network itself, with multiple users interacting with the machine simultaneously from various locations (Patel & Karmakar 2014:8).

The procedure was carefully monitored. This is the machine's basic functionality in its immediate environment, as managed by a person. A system like this machine can also incorporate digging a vegetable garden with a nuclear shovel fission, another example of a regulated system was used in a nuclear plant to generate electricity.

. Because of the abstract ideas employed in information systems, categorising the regulated process is typically more complex. Controlled processes in information systems include automatically organising files, sending electronic mail, and searching a database for an item of information or a directory for a particularity (Patel & Karmakar 2014:9).

In a rudimentary work system, the display is frequently only the machine's action on its immediate surroundings. The procedure is a show in and of itself (as in chopping wood with an axe). As technology advances, the gap between the regulated process and the human component grows, necessitating the creation of artificial displays. Driving a car or turning a lathe is intermediate in that the display comes directly from the controlled process (the view of the road or the action of a machine tool on a workpiece) and indirectly from gauges, dials, and other indicators. Artificial displays are required due to the complexity and danger of controlled operations in nuclear power generation and chemical process sectors. In these devices, the human operator has no direct access to the controlled process and must rely only on artificial displays to interact with the machine. There is no necessity for these displays to be built in a fashion corresponding to the actual controlled processes they reflect. The controlled process in information systems may be so abstract that it cannot be accurately depicted using physical displays (for example, compiling code written in a high-level language). The designer's task then becomes to create an interface that serves as a metaphor or method of thinking about the process (Patel & Karmakar 2014:9).

Controls of the ability of humans to interact with machines depend on the provision of appropriate controls that can be acted on by the effect. When using simple technology, the control is frequently the machine component. The pivoting action hand-and-handle interface allows the cutting edge to be propelled towards the target via the axe's handle. The interaction of the effectors and the control and the mechanical advantage supplied by the control design is the design criteria at this level. During the execution of control activities, controls are also a significant source of feedback; for example, a saw's resistance to cutting tells us something about the blade's sharpness or the hardness of the wood, while a motorcar steering wheel's resistance to turning gives us information about the road surface or tyre pressures (Patel & Karmakar 2014:9).

## 5.5 The Focus of Ergonomics

The purpose of ergonomics is to improve the interactions between humans and machines to improve the efficiency of a work system. More output from fewer inputs to the system (more 'productivity') or enhanced dependability and efficiency are two examples of better functioning (a lower probability of inappropriate interactions between the system components). The specific notion of improved performance varies depending on the situation. However, whichever definition is utilised, it should be done at the level of the entire work system, not just one component. Enhanced machine performance that causes workers psychological or physical stress or harms the surrounding environment does not equate to improved overall work system performance or goal achievement. If it is done superficially, for its own sake, and not to improve some aspect of the entire work system's functioning, workstation redesign to make workers more 'comfortable' is an inappropriate justification for the use of ergonomics such as reduced absenteeism and fewer accidents due to better working conditions (Patel & Karmakar, 2014:5)

The impact of ergonomics on system design in practice can be seen in two ways. To begin, many ergonomists work at research companies or universities, conducting basic primary research to determine the human traits that must be considered in design. This research frequently leads to developing standards, laws, and design guidelines directly or indirectly. Second, many ergonomists work as consultants, either independently or for a company. They provide their knowledge of the design of human-machine interactions in work systems as part of a design team. This frequently entails using standard rules and information to establish specific system attributes. Workplaces are structured hierarchically. This means that the main task is composed of subtasks (at the next level down) and is governed by higher-level constraints such as supervisory style, work structure, working hours and shift work, and so on. In practice, we rarely rethink the work itself if we wish to optimise it. (Patel & Karmakar, 2014:5).

At the next level below, we either change or restructure the task's pieces or alter the higher-level variables. For example, we might consider the type of human-computer dialogue used to improve a data input process. We might discover that some portions of the conversation trigger the system to send out faults (e.g., when the operator mistakenly reverses two numbers in a code, the system recognises it as a different code rather than rejecting it). Alternatively, we might discover that there are insufficient rest times or that most errors happen during the night shift. To improve a task, we must first determine the task's level (e.g., a repeated physical handling task), the next level down (the weight and characteristics of the load and the container), and the following level up (the weight and characteristics of the load and the container) (the workload and work organisation). We can restructure the task from the bottom up (e.g., use lighter containers and stabilise the load) or from the top down (e.g., introduce job rotation or longer break times), or we can do both. At the same time, we can examine extraneous or environmental elements at the task level but outside of it, factors that degrade performance as well (e.g., slippery floors in the lifting example or bad lighting and stuffy air in the data entry example). We monitor the task over time to detect changes in system performance after we have modified it and analysed the gains in task performance (Patel & Karmakar 2014:5-6)

## **5.6 The Impact of Ergonomics on Performance**

According to Patel and Karmakar (2014:1), Ergonomics studies how people interact with machines and the factors that influence that relationship. Its goal is to improve system performance by enhancing human-machine interaction. This can be accomplished by 'designing-in' a better interface or 'designing-out' variables that hinder human-machine performance in the work environment, task, or organisation. For example, designing the user interface to be more compatible with the task and the user can help enhance systems, makes it easier to use and more resistant to common human blunders by changing the working environment to make it safer and more suitable for the job, Adapting the assignment to better suit the user's needs, and Organising work in a different way to fit people's psychological and social demands.

Patel & Karmakar (2014:2) states that we might modify the interface in an information processing task to lessen the stress on the user's memory (e.g., shift more of the memory load of the task onto the computer system or redesign the information to make it more distinctive and easier to recall). For example, to lessen the burden on the musculoskeletal system in a manual handling operation, we can modify the interface by adding handles or using lighter or smaller containers. Vibration and noise can be reduced in the workplace, and better seating, diking, ventilation, and lighting can be provided, for example. New tasks can be made more accessible to learn and do by designing them to look like existing activities or procedures. Workplace organisation can be enhanced by allowing employees to work at their own pace, reducing the psychophysical stress of being "tethered to the machine," or by providing auxiliary jobs to extend the variety of physical activity at work and provide social interaction. When workers' efforts yield sub-optimal output, the Ergonomics in the system design should make the system work better by reducing parts of system functioning that are unwanted, uncontrollable, or unaccountable for, such as:

- Fatigue — people, tire out unnecessarily in poorly planned tasks.
- Mistakes, injuries, and errors - caused by poorly designed interfaces and/or mental or physical stress.
- User issues - The dialogue/interaction becomes clumsy and awkward due to ineffective subtask combinations.
- Apathy and low morale.

Absenteeism, injury, poor quality, and unacceptable levels of human error are seen as system problems rather than "people" problems in ergonomics. Their solution is seen as designing a better work system rather than better "man management" or incentives, by "motivating" workers, or by introducing safety slogans and other propaganda; the term 'ergonomics' is derived from the Greek terms' ergon' and 'nomos,' which signify work and law, respectively. (Patel & Karmakar, 2014:2)

## 5.7 Home Office

Kroemer & Kroemer (2016:8) state that if you belong to a particular age, you will remember that in an office environment, our ambition was once to attain the executive suite, the big corner office, the one with the private rest room and the bank of secretaries, and the thick comfortable carpeting. Then came the home office, where the objective was to carve out a separate room with a specifically designed work environment and a cutting-edge computer, despite the reality of being a corner in the den, a spot in the kitchen, or, at best, a spare room, rustled up to complete occasional paperwork for an hour or two. Working from home is already popular, and our equipment is becoming increasingly wireless and portable. The home office, as it were, is a far cry from what it was just a few years ago. The cloud has replaced file cabinets, Wi-Fi is omnipresent, and power cords are being phased out as device charging choices expand. As previously specified work locations evolve into work-life areas, remote workers are left with a bewildering array of venues to work. These truths both simplify and complicate the ergonomic issues that follow. Because there is no such thing as a "typical" remote worker, there is no single design solution. Some of us prefer to work at a desk or a kitchen table, while others prefer to work while laying over a couch or standing at a lectern with a laptop and a handheld device. Others, including this author, change things up by switching from one work space to another, alighting at a kitchen counter, then a kitchen table, then a couch, then a desk, and so on. As a result, we are unable to provide a set of rigid ergonomic guidelines for a well-designed home office. Instead, we give some pointers and guidelines that consider the type of work, the amount of space available, the desire for privacy and isolation, as well as the physical and emotional features of the worker including:

- Identify what you need for work: Do you like perfect silence, or can you tune out background noise? Can you work in a destructible environment, or do interruptions prevent you from finishing your work? These questions will help you decide whether you require a space that can be closed off for privacy. Also, be aware of your personal routine preferences—some individuals prefer



- to jump out of bed and start working straight immediately, while others prefer to exercise or socialise before starting work ( Kroemer & Kroemer,2016:8)
- Identify your physical/comfort needs: If you like to get out of the house for long periods, investigate the now-commonly accessible applications that can help you find places with Wi-Fi and refreshments. Some workers enjoy getting together with others and expanding their professional network; many remote workers schedule casual get-togethers at regular intervals, for example, weekly or monthly (Kroemer & Kroemer,2016:8)
  - Invest in high-quality furniture: By "high-quality," we do not mean "expensive," but rather furniture that matches your needs. Furniture should adjust to your size and preferred working habits, never forcing you into awkward or dangerous positions (think slouching, leaning, and slumping). Make sure you have enough space to stretch your legs and change your position. Of course, you should have a chair that is comfortable for you and blends in nicely with the rest of your workplace furnishings ( Kroemer & Kroemer,2016:8)
  - Optimise and camouflage where possible: Because this office is also your home, think about furnishings that can hide work-related products and supplies. Although we are moving toward wireless surroundings, some cords and wires are still required at this time; make sure they are hidden and secured ( Kroemer & Kroemer, 2016:9)

Bottom line: Your home office deserves your complete ergonomic attention because it can and should be "tailored" to fit you for both your health and productivity.

## **5.8 Office Tasks**

Offices vary significantly in size, location, structure, organisation, and purpose, and there are even more ways to categorise the work done within them. We classify office jobs into four general divisions of key work categories since this book is concerned with the ergonomic elements of task execution and the consequent workload:

- Using a computer to create texts, social media posts, and correspondence like letters and invoices
- Monitoring and tracking payments, schedules, and events
- Manual or computerised filing and retrieval of information
- Communicating and connecting with others via the phone, in person, or on a screen (Kroemer & Kroemer, 2016:19-10)

Preparing texts and communications, as well as keeping records, carry the danger of musculoskeletal overexertion injuries; the number of critical activations per unit of working time on computer keyboards is significantly higher than it was on the mechanical typewriters that historically dominated offices. The quantity of digit motions required by keyboards surpasses the capability of many computer operators' hand tendons, and, as previously said, many of us, other than those previously classed as secretaries, now keyboard on a daily or routine basis. The office worker is also prone to repetitive motion injuries when filing and retrieving documents electronically, however the number of digit motions per unit of working time is likely to be smaller than in the first two duties. Manually filing and retrieving documents is actually advantageous since it encourages movement, especially if the file cabinets are far away from the workstation. (An irony for the industrial engineer is discovering that not having all work instruments within easy reach has significant benefits.) Only chatting with people has a negligible impact on whether or not computers are utilised; however, if a telephone is used for communication, cradling a phone between the neck and shoulder for long periods becomes an ergonomic concern. Fortunately, headsets are explicitly made for these uses. (Kroemer & Kroemer, 2016:10)

## **5.9 Good Office Ergonomics Make for Improved Economics**

According to Kroemer & Kroemer (2016:11-12) although the research, which was completed in 1999, is a little out of date, the point remains valid: Liberty Mutual Insurance Company reported on a test of the theory that giving employees more control over their environment and a better understanding of ergonomic principles

would improve their performance and reduce their health problems. The results of the 18-month study corroborated what had been predicted: the flexible workplace, when combined with ergonomic training, improved individual performance and group collaboration. Employees who had more control over their environment experienced a nearly one-third reduction in back pain and a two-thirds reduction in upper limb pain. Hundreds of thousands of individuals miss work each year due to workplace injuries. While apparent causes of accidents, such as carelessly lifting heavy objects, come to mind first, some of the most insidious and costly injuries occur in sedentary jobs. From the perspective of a repetitive stress injury (RSI), sitting at a computer and typing for lengthy periods of time can be exceedingly harmful. Not only does the employee experience discomfort, suffering, and the possibility of short- and long-term harm because of RSIs, but the employer is also responsible for medical expenditures, lost work time, and temporary—or even permanent—disability. In the short and long term, taking a proactive approach and assisting employees in finding a comfortable, efficient manner to conduct their work makes sense. Furthermore, knowing that their input is valued and that their comfort is a priority informs employees that their employer is concerned about their needs, which could boost employee morale and productivity in the near term. Long-term, pain that could have turned into a chronic problem is avoided. In conclusion, establishing sound ergonomic rules and practices will reduce employee injuries, save money in the long run, and result in healthier and happier workers. Science, technology, and art come together in office design.

The challenging concept of modular spaces and cubicles, with more luxurious private offices for those lofty souls ranking higher in the management hierarchy, has followed the small, dank offices of the 1500s through large, cramped workrooms that prevailed during Taylorism, followed by the challenging concept of modular spaces and cubicles, with more luxurious private offices for those lofty souls ranking higher in the management hierarchy today's workplaces have developed once again, and the version of tomorrow will represent current technology, science, and art. Although the approaches to office design are apparent, they also reflect the philosophical and social ideas of the time. They are

heavily influenced by the technology available at the time, such as heating and cooling systems, as well as the leading work methods, which range from handwriting to typewriting to computer use, and from telegraph to pneumatic tubes to telephone to wireless electronics ( Kroemer & Kroemer,2016:12-13)

Technology is continually changing, and what is current now may be obsolete tomorrow. As telegram and e-mail indicate, new technology can be forgotten or rapidly become commonplace. Technology and science play an essential part in designing office equipment. Because there are so many aspects at play in making an office comfortable and visually beautiful, it is not enough to design an office based on necessary science-based biomechanical information. Consider that lighting alone will not make an office attractive to the eye, and that air conditioning alone will not make all office workers comfortable. Ergonomics encompasses the scientific and engineering disciplines concerned with the human at work, but it does not end there; to build the optimal office space, the ergonomist must collaborate with the artistic, intuitive, brave, and speculative designer of furniture and office spaces. ( Kroemer & Kroemer,2016:13)

Science impacts office design by providing theories regarding effective and humane work systems and models. Science also provides tools and procedures for measuring the outcomes, both subjectively and objectively, such as satisfaction or motivation and cost-effectiveness. The literature also demonstrates that in the past, management chose one of the numerous viable office designs based on economic reasons. This was undoubtedly a reasonable method, and it still is, but determining what is best for the individual working in that office is (or should be) a significant part of the decision-making process. Even yet, numerous irrational, intuitive, wishful, and unfounded concepts have affected judgment, such as "we think faster on our feet than on our seats," "posture impacts mood and readiness to work," and "red-coloured walls make individuals eager and aggressive." This should not require us to gather all our office chairs and toss them out, nor should it compel us to paint the walls grey-green (Kroemer & Kroemer, 2016:13)

The office layout has visionary and speculative characteristics, and some daring new designs and insights would not exist. People, on the other hand, are the drivers and pilots of office work, generating new ideas and procedures and determining success or failure; they are the drivers and pilots, and their office, like the cockpit in vehicles and planes, must be structured around them. Ergonomics provides the data required for human-centred design ( Kroemer & Kroemer,2016:13)

According to Tompa et al., (2010:220-221), workplace ergonomic policies are put in place to ensure that work systems (equipment, tools, workstations, work and workplace structure, and policies/procedures) improve employee health and safety while also maximising corporate performance (i.e., efficiency, productivity, quality, and profitability). In recent years, there has been a growing awareness of the relevance of ergonomics in the workplace. Despite the rising use of ergonomic standards and recommendations, scientific evidence on the effectiveness of ergonomic programs, policies, and practices for decreasing injuries is less intense than one might assume. The effectiveness of ergonomic interventions has been studied in several systematic reviews. Rivilis et al., for example, conducted a systematic review of the efficacy of participatory ergonomic treatments. Participatory ergonomic interventions can reduce musculoskeletal (MSK) complaints, workers' compensation claims, and sick leave, according to the review, which revealed limited to moderate evidence. Brewer et al. reviewed workplace strategies aimed at preventing/reducing MSK and visual symptoms and disorders among computer users. They discovered conflicting evidence suggesting office treatments influence MSK or visual health in computer users. There was also moderate evidence indicating no effect of workstation adjustment, no effect of rest periods and exercise, and a favourable effect of different pointing devices, according to the study.

Tompa et al. (2010:221) furthermore argue that best practices are more about integrated approaches to exposure control than specific ergonomic tools/procedures. There is no solid proof that any particular intervention is effective. Multi-component programs and combinations of therapies, on the other

hand, have been shown to be effective. The study's findings are based on a compilation of numerous systematic reviews about ergonomics. Because safety experts are unlikely to go through a mountain of scientific publications or review the conclusions of numerous systematic reviews, each of which synthesises the information on one component of ergonomics to produce best-practice guidelines, the goal is to deliver practical instructions. Given the growing recognition of the relevance of workplace ergonomics among safety professionals and researchers, it's surprising that the literature on the financial benefits of ergonomic programs is so limited. The majority of published ergonomic intervention studies focus on the effectiveness of the intervention rather than its cost-effectiveness or financial advantages. This could be owing to a lack of knowledge in economic assessment procedures among occupational health and safety (OHS) experts, or it could be related to evaluators' low priority for economic studies. The paucity of cost-effectiveness analyses is also likely due to practical workplace constraints that make obtaining high-quality financial data challenging. Two high-quality intervention evaluations and one medium-quality intervention assessment were found in the administrative and support services sector. Based on the findings of this research, we found that there is moderate evidence that ergonomic changes in the administrative and support services sector are financially worthwhile (Tompa et al., 2010:221)

### **5.10 Defining Leadership**

The act of providing guidance is what leadership is all about. It is broadly defined as the process of social influence and using other people's efforts to attain a specific purpose. This definition considers social and corporate strategies, as well as managerial considerations. However, different researchers have varied ideas about what leadership is (Renzi, 2020:199)

Sarver & Miller (2014) define leadership as "taking responsibility for the correct management of human and material resources to bring about change and enable advancement." All leaders with the vision to inspire change must practice transformational leadership. Leaders in all fields, including business, law

enforcement, politics, and management, are accountable for instilling cooperation among team members and driving change. Improved job performance, team cohesion, and morale for motivation in the execution of duties are all signs of change. Leadership styles fluctuate, as does the level of involvement in team activities. However, a leader's personality traits of neurotics, extraversion, openness, conscientiousness, and agreeableness must guide them regardless of their leadership style. ( Renzi, 2020:202).

There are no "best" transformative leadership talents because each has its own merits and levels of effectiveness in specific contexts. Managers must also use communication, consultations, and personal opinions of team members before making decisions, according to Sarver and Miller (2014). The first step in building a cohesive team where psychological safety thrives and everyone is free to offer their ideas is to cultivate openness and create an aura of trust in a project. Because different team members have different perspectives gathered from different experiences, collective consultations and consideration of personal opinions are essential in project implementation because they form an essential source of information from which other officers and managers can learn (Renzi, 2020:202)

The psychological desire to work for a specific goal is known as motivation. Motivation provides a sense of purpose and direction. It describes motivation as a willingness to put in a lot of work to attain organisational goals. According to Pinckney (2015), motivation is the source of all employees' motivation, and its existence or absence has varying degrees of impact on the business. Knowing the elements that drive action (why individuals do what they do) is a crucial step toward understanding how to enhance the work environment because motivation is a psychological aspect. Motivated people see project responsibilities as an extension of their personal projects, and their efforts boost the organisation's productivity and competitive edge. Self-driven personnel are more engaged in engagements, have strong problem-solving abilities, have a better relationship with their co-workers and, by implication, the employer, and other paraprofessional

colleagues, are imaginative, creative, and more focused on meeting the demands of their clients. ( Renzi, 2020: 205-206)

Job happiness and motivation are inextricably linked. Psychological safety, according to Subhakaran & Dyaram (2018), fosters an environment in which employees are free to use discretion and hence speak up for or against matters that impact them. A motivated workforce is the result of the enjoyment obtained from that freedom. They also point out that inferior cultures, such as those that discourage free expression, lead to demotivated employees. As a result of this fear of being victimised, perceived as critical, and self-serving, the workforce shies away from expressing their ideas, and as a result, there is a strained relationship between such employees and the team leader. Motivation can thus be boosted or stifled psychologically because of poor leadership methods. Unethical and autocratic leadership, for example, bad communication structures, poor teamwork relationships, a stressful working environment, and other factors can all contribute to workers having a negative attitude about their jobs. Similarly, better interpersonal relationships, ethical leadership, and a work climate that allows freedom of speech and idea experimentation foster positivism, psychological safety, and a highly engaged workforce ( Renzi, 2020:206).

### **5.11 The Role of Leadership/management on Employee Performance**

Leaders can be found in government, small activist groups, organisations, institutions, local companies, and other places in society. Today's leaders are primarily concerned with preserving and improving the system's integrity. People farther down the line require leadership qualities to carry out their obligations; as a result, everyone in an organisation or system must be prepared and well-educated to take on the responsibility of making decisions (Demir et al., 2021; Hiwa et al., 2021:27).

Leaders in companies and workplaces strive to create a good climate that encourages everyone to achieve their best. Their attitude, and sense of responsibility for their work are strengthened by good leadership (Abdulla et al., 2020; Top et al., 2020). Leaders influence their subordinates to cooperate to



achieve work success. Leadership is also vital for organisational structure: it aids in the organisation and control of various duties, and it encourages individuals to pay attention to every detail and work to eradicate their flaws. The team was able to build and enhance its skillset thanks to a fantastic and inspiring leader. It also creates a competitive climate for employees and members of the company, where everyone strives to perform their best and have the most significant impact on internal effectiveness and external success, both of which influence customer happiness (Budur et al., 2019; Torlak et al., 2019; Hiwa et al., 2021:27)

### **5.12 Leadership Style**

According to Ariussanto et al. (2020:2-3), leadership is a social influence process in which leaders seek and coordinate the engagement of followers to achieve corporate objectives. Leaders are those who delegate or persuade others to carry out predetermined objectives. A leadership style is a pattern of managerial behaviour that aims to merge organisational and personal interests to achieve specific objectives. Transactional leadership and transformational leadership are the two sorts of leadership styles. Transactional leadership is based on a "transaction" between leaders and followers, in which the followers are rewarded for meeting particular performance, goals, or criteria. The relationship between performance and reward is validated by transactional leadership, which trades with an appropriate reaction to motivate subordinates to enhance performance. Transactional leadership, also referred to as managerial leadership, is concerned with supervision, organisation, and group performance. Transactional leadership is a form of leadership in which leaders use rewards and punishment to encourage followers to stick with them.

On the other hand, transformational leadership is a leadership style that prioritises the growth and needs of followers or employees. Transformational leaders are concerned with the growth and development of value systems, levels of inspiration and staff morale. Leaders give rewards, leaders give punishments, leaders engage in ongoing employee work, leaders help when complex problems arise, leaders become role models, leaders provide inspiration, leaders provide motivation,

leaders provide support for creativity, leaders pay attention to subordinates' needs, and leaders value employee contributions to the company (Ariussanto et al., 2020:2-3).

### **5.13 Employee Engagement**

According to Ariussanto et al. (2020:3), employee engagement is defined as an individual's or employee's desire to attain corporate goals as evidenced by personal initiative, adaptation, effort, and persistence. Employee engagement may also be defined as an emotional or psychological condition in which employees believe they have a stake in the organisation's success and are motivated to complete assignments and work. Employee engagement will be measured using several factors, including leadership, team and co-worker, training and career development, compensation, organisational policies, workplace well-being, and work environment, as described Work environment.

Physical conditions, job characteristics, organisational elements (culture, history), and other components of the organisation, such as local labour market conditions, industry, and household-labour relations, are all part of the work environment. Equipment, equipment, technological infrastructure, and other physical or technical factors in the workplace are referred to as the technical environment. The organisational environment leads to national tasks and environments in which the organisation gathers input, processes it, and then returns output in the form of commodities or services for public consumption. Work that is hard, supervisor encouragement, work group support, organisational encouragement, adequate resources, and reasonable workload pressure are some of the indications used (Ariussanto et al., 2020:3)

### **5.14 Employee Performance**

According to Ariussanto et al. (2020:3), Employee performance is defined as a set of financial and non-financial outcomes or job results that are directly tied to the company's performance and success Employees' performance is measured by the quality and amount of work they produce while fulfilling their obligations. Employee performance refers to the work that a person or a group of individuals in an

organisation may accomplish in accordance with their respective rights and obligations to meet organisational objectives. Individual and organisational performance is closely linked; in other words if employee performance is robust and organisational performance is likely to be strong as well. Employee performance refers to the work that one or a group of employees in an organisation may accomplish per their respective tasks and authority to fulfil organisational goals. Transactional leadership has a positive effect on employee engagement.

Ariussanto et al., (2020:4) furthermore explains that organisational growth necessitates an understanding of individual leadership and organisational principles in the workplace. To optimise the effectiveness and efficiency of the work environment, each culture requires various leadership styles and skills. Depending on the community and the existing cultural environment, leadership styles might change and must be handled accordingly. Characteristics, attributes, and conduct of leaders play a role in fostering a healthy and productive work environment. The first aspect determining employee engagement is the work environment. Leadership style has a favourable effect on the work environment. Employee engagement is influenced by a variety of factors, one of which is the work environment. Employee engagement is said to be the result of numerous components of the work environment, according to past study. Employee comfort is ensured by a supportive work environment, which generates good energy for performance and engagement. (Ariussanto et al., 2020:4)

#### **5.14.1 Work environment has a positive effect on employee engagement.**

Ariussanto et al. (2020:4) state that staff engagement significantly impacts employee performance. Employee engagement will rise if supportive aspects such as work environment, leadership, team and co-worker satisfaction, training and career development, salary, organisational policies, and workplace well-being are met. As a result, organisations and employees will have a mutual relationship. Employee engagement is defined as a cognitive and emotional bond between

employees and the organisation that has a direct impact on employee contributions.

#### **5.14.2 Employee engagement has a positive effect on employee performance.**

According to Ariussanto et al. (2020:4), employee performance is greatly aided by the workplace environment. Supervisor support, strong relationships with co-workers, training, and development, appealing and quick incentives, proper workload recognition, and workload plans are all highly beneficial in creating work environments that have a positive impact on employee productivity. One of the goals that support employees in executing their tasks is a conducive work environment. Businesses that overlook the workplace environment have a negative impact on employee performance. Employee performance is influenced by the work environment. Leadership style has a favourable effect on the employee, or organisational performance. Leadership style aids in the development and maintenance of maximal organisational and individual capabilities. Leadership style is an "art" of persuading individuals to work at their best to achieve the organisation's objectives.

#### **5.14.3 Employee performance is influenced by leadership**

Hao & Yazdanifard (2015:1) state that the introduction of the internet and the rapid rise of the economic environment made it easier to contact countries worldwide. As a result, the business environment in every country has altered, resulting in increased market competition with each passing year. To stay afloat, business owners recognised they needed to offer higher-quality products at lower prices, implement tactics explicitly designed for the organisation to adapt to current business trends and be flexible in dealing with the fast-changing business climate. Effective leadership is one of the most essential components of an organisation's overall strategy for surviving in the face of issues produced by the rapid growth of the economy. Leaders oversee an organisation's operations, and competent leaders can set positive goals and objectives while guiding the company's operations towards those goals through successful methods. Aside from that,

strong leaders may inspire and encourage their people by fostering a favourable organisational culture and providing significant employee perks, such as health care insurance, worker compensation, and leave benefits, among other things.

Intelligent leaders must also use their talents and knowledge to guide their company ahead successfully and efficiently in the face of an uncertain future and reduce the emotions of uneasiness that uncertainty causes among their staff. A leader can impact the success of an organisation due to his complete control over the organisation's direction, as well as the influence they have on its staff, who are motivated to take the company to new heights (Hao & Yazdanifard, 2015:1).

### **5.15 Effective Leadership**

Leadership is a type of authority in which one person can influence or modify another person's values, beliefs, behaviour, or attitudes (Ganta & Manukonda, 2014). Because a leader who can effectively achieve some good result or achievement gains the trust and admiration of their employees and inadvertently changes their values, beliefs, behaviour, and attitudes, a person with strong leadership ability will be a good example or role model to their employees because mimicry is the sincerest form of flattery. Aside from that, there is another method to identify a leader capable of decisive leadership. Influential leaders provide clear direction to their employees, encourage them to commit to their roles, and work together to achieve the organisation's goals and objectives. This also indicates that strong executives typically have a clear vision for the company and can quickly recognise the challenges and roadblocks that now stand in their way of achieving the organisation's goals. As a result, they can effectively and efficiently implement the required reforms to bring the firm into the future while staying current with current business trends. Leadership is a process in which leaders use their skills and knowledge to guide and motivate a group of people in the direction of their organisation's goals and objectives (Hao & Yazdanifard, 2015:1).

Hao & Yazdanifard (2015:1-2) furthermore explain that an effective leader with excellent leadership abilities should exhibit specific traits, such as enthusiasm, consistency, trust, and vision, because only leaders with these characteristics can

generate trust in their workforce. Management is more like the traditional way of managing a business, in which the owner of the business has complete control of the organisation and will single-handedly establish a direction and direct their employees to do their work following the owner's instruction and plan. Leadership is more like the traditional way of managing a business, in which the owner of the business has complete control of the organisation and will direct their employees to do their work following the owner's instruction and plan. On the other hand, leadership is when a leader guides their employees toward the organisation's goals while also attempting to communicate and motivate them so that they are in the best position to maximise their abilities and commit to their employment. In contrast to management, which merely follows its old, traditional standards, leadership techniques will alter in response to contemporary trends when appropriate. Leadership is defined as the ability to influence the values, beliefs, attitudes, and conduct of a group of employees.

A leader with good leadership abilities may readily motivate and influence the organisation's people and make effective changes. However, according to Atkinson 2015, if an organisation lacks effective leadership, no changes will be accomplished since there are no leaders who can excite and lead the organisation's people while also providing a clear direction by:

Gaining the trust of group members or employees can help to increase overall performance and commitment of the group members or employees; hence trust is an essential problem in leadership for leaders. Employees, or group members that have faith in their leaders are likely to be good, influential leaders. People will only follow a person they trust to lead them along the correct route, not a leader who merely talks but does not act. If employees trust their leader, this relationship will bond them together and increase overall performance and commitment; if the opposite occurs, employee performance and commitment will suffer, perhaps leading to a high employee turnover rate in the firm (Hao & Yazdanifard, 2015:2).

Culture of the Organization: a positive culture can be shaped through exemplary leadership. A company's culture is shaped by the trust between its employees and

its management; alternatively, it can be characterised as a culture that requires trust to form. To create a positive company culture, employees and executives must have faith in one another. Because they can inspire trust from their colleagues, executives with excellent leadership qualities can establish a healthy culture in the organisation (Lonescu, 2014:.2).

A positive organisational culture not only increases performance but also has a favourable impact on the conduct and attitude of employees. Furthermore, it generates loyalty and devotion to the company by motivating employees and giving them a sense of belonging to the organisation (Schein, 2010). A positive organisational culture enhances performance, lowers turnover rates, and gives employees a sense of belonging, encouraging loyalty and devotion to the company (Schein, 2010). A positive organisational culture not only increases the organisation's performance and minimises turnover, but it also makes it easier to resolve internal conflicts (Hao & Yazdanifard, 2015:2-3).

When a positive organisational culture is formed, one that is free of discrimination based on race, religion, or other factors, it creates a pleasant working atmosphere, decreasing internal conflict and encouraging discussion and collaboration to resolve inter-employee difficulties. Furthermore, a positive business culture fosters healthy rivalry, which motivates people to be more innovative. As a result, a solid organisational culture can affect the organisation's overall success (Hao & Yazdanifard, 2015:2-3).

It also makes it easier to resolve internal difficulties within the company. When a positive organisational culture is formed, one that is free of discrimination based on race, religion, or other factors, it creates a pleasant working atmosphere, decreasing internal conflict and encouraging discussion and collaboration to resolve inter-employee difficulties. Furthermore, a positive business culture fosters healthy rivalry, which motivates people to be more innovative. As a result, a solid organisational culture can affect the organisation's overall (Bamidele 2022:284-292).

Learning through various forms of motivators, such as prizes or status, a great leader can motivate individuals in the firm to learn . One of the strategies to improve an organisation's overall effectiveness is to keep learning. Not only employees but also all levels of an organisation's leadership must grow, if only to set a positive example for the bottom line and encourage them to learn. Leaders should enrol in leadership training programs to improve their skills and expertise, making their strategy and execution more effective (Hao & Yazdanifard, 2015:3).

Employees will also benefit from further training, increasing their ability to do their jobs and effectively implementing the desired improvements. This aids the organisation in increasing staff productivity and performance. Because learning never ends, leaders must constantly develop their leadership abilities and knowledge to remain competitive in today's corporate world (Hao & Yazdanifard, 2015:3).

If a firm or leader does not continue to improve and, as a result, discovers that their skills and knowledge are insufficient, the company will inevitably deteriorate. Nokia, for example, was once one of the finest cell phone brands in the world, but because Nokia did not continue to enhance its skills and adjust to adapt to new trends and market needs, Nokia fell from one of the best to a brand that few people notice (Hao & Yazdanifard, 2015:3).

Collaboration, communication, and leadership: Leaders must improve their leadership skills and urge their organisation's people to be inventive and cooperative. Teamwork and communication are the most effective ways to generate fresh ideas and get the best results for the company. Leaders must develop a positive culture where employees trust one another, are allowed to do their tasks without undue interference and have the flexibility to establish a dialogue with one another to foster the kind of teamwork and rapport required for the emergence of innovative ideas (Hao & Yazdanifard, 2015:3).

Leaders who want to facilitate effective change in their organisation should encourage employees to collaborate and communicate with one another because this is how people can create and discover new ways of thinking, which results in a



better outcome for the company and encourages them to learn from different people about how to improve themselves. Even high-ranking management might benefit from their staff's strengths, which they may lack. Communication allows people to get to know one another and may also help to generate new ideas by allowing people to share their perspectives (Hao & Yazdanifard, 2015:3).

Lastly, leadership impacts the organisation's personnel and gives them clear direction based on its vision and mission. Influential leaders devise tactics to assist staff in achieving the company's goals. Leaders are also responsible for monitoring staff direction to ensure that they are on track to meet their objectives in accordance with the plans. Employees are unwilling to follow someone who has little to no idea what they are doing and waste too much time and resources on the unneeded; therefore, this can only be accomplished with solid leadership that inspires employee trust (Hao & Yazdanifar, 2015:3).

According to the organisation's vision and mission, leaders with good leadership abilities may also guide their staff on the right path. When a company's CEO leads its people in the right way and pushes them to develop and innovate constantly, the company's performance will undoubtedly improve and survive in today's demanding business environment. As a result, good leadership is the most crucial aspect in bringing change to an organisation; without it, there will be no chance at all (Atkinson, 2015:3).

## **CHAPTER 6**

# **CONCEPTUAL FRAMEWORK, PERFORMANCE MODELS, MOTIVATION MODELS, CONCEPTUALISED MODEL FOR VIRTUAL OPERATIONS**

### **6.1 Introduction**

This chapter focuses on the thesis' conceptual framework; the first part of the chapter will provide a brief overview of the conceptual concept model, followed by its importance, applications, and benefits in successfully completing a well-structured research thesis. The second section of this chapter will provide well-researched conceptual models for employee performance and motivation, as well as a brief overview of the impact of transformational leadership on employee performance. Finally, the third part of this chapter will investigate the historical perspectives of virtual and traditional offices, citing similarities and differences in their work environments initially, using employee performance and employee motivation as intervening variables for employee productivity levels in virtual and traditional offices; this chapter will propose a conceptualised model for virtual and traditional offices.

### **6.2 The Conceptual Concept Model**

Concepts are abstract ideas that emerge from experiences and perceptions used to label phenomena, events, or processes. Concepts are frequently used to generalise from particulars to build abstract ideas (Gavin, 2016:1).

A conceptual framework is defined by Gavin (2016:1) as a system of concepts, assumptions, expectations, and beliefs in which visuals or propositions link large abstract ideas or models to lead exploratory research. As the researcher relates the literature to real-world experiences or events to create future views or practices in the research study, the author explains that a conceptual framework frequently emerges from the literature evaluation. Imenda (2014:124) defines a conceptual

framework as "the end result of putting together a set of related concepts to explain and provide a better knowledge of the event under study." This means that a conceptual framework is a compilation of several findings from the reviewed research literature sources, putting out the study agenda to understand the research objectives better. Establishing a framework that organises the currents of thought that provide emphasis and direction to a research undertaking is the first step toward understanding (Rallis & Crossman, 2012:124).

### **6.2.1 Conceptual model importance and uses**

From a statistical approach, the conceptual framework describes the relationship between a study's fundamental concepts. It is ordered logically to help create a picture or visual representation of how the ideas in a study relate to one another (Grant & Oslo, 2014:231). It is ordered logically to help create a picture or visual representation of how the ideas in a study relate to one another (Grant & Oslo, 2014:231). Astoundingly, a conceptual model depicts the researcher's desired order of actions in a study investigation (Dixon, Gulliver & Gibbon, 2001). It is organised logically to help create a picture or visual representation of how the ideas in a study relate to one another. According to Miles and Huberman (1994:18), conceptual frameworks might be "graphical or narrative in character, displaying the relevant variables or constructs to be investigated and their postulated relationships."

### **6.2.2 The benefits of well-structured a conceptual model**

In a study by Solomon & Solomon (2000:6), a conceptual framework is defined as a mechanism for establishing a body of knowledge in a discipline by codifying the literature and using it to construct a model of reality, which often leads to policy recommendations. The authors further explain that a conceptual framework enables rational and explicit communication in a particular discipline. The

conceptual framework approach allows for the creation of taxonomies, which helps to clarify concerns. It is critical to establish a nomenclature or shared terminology.

Solomon & Solomon (2000:6) outlined four overriding benefits derived from the use of a conceptual framework methodology listed and explained below.

Firstly, a conceptual framework can also be used as a pedagogical tool to introduce a discipline or certain subjects within a discipline. The bibliography following the literature review is frequently helpful for future research. By clarifying terms, a common language aids in the knowledge of the subject. The reader can understand a reality thanks to the model development (Solomon & Solomon 2000:6)

A conceptual framework's second benefit is that it is based on a model that portrays the present situation. The model frequently tries to make the implicit explicit, mirroring the status quo. This, in turn, gives light on the current situation and allows ideas for improvement, presumably for the better and the public good (Solomon & Solomon 2000:6).

The third advantage of implementing a conceptual framework is that it allows flaws in the status quo to be identified. The use of foresight to shortcomings is possible thanks to the usage of a conceptual framework approach. This shows that a conceptual framework methodology can be used to explore shortcomings in any subject and even enable problems to be addressed inside such a framework, allowing for potential advantages to develop from such an exercise, thereby changing the current quo (Solomon & Solomon 2000:6-7)

The fourth advantage is that using a conceptual framework enables rational debate. The model development leads to academic discussion regarding taxonomy and the link between variables, propositions, and models. A conceptual framework allows for greater clarity in the discussion, with challenges being addressed transparently. Policy ideas that may arise from the conceptual framework can thus be thoroughly debated in a unified manner (Solomon & Solomon 2000:7)

Ravitch and Riggan (2012:6-7) also stated that a conceptual model brings the entire research process together to produce an argument that proves the research study is significant and academically rigorous. The conceptual framework, on the other hand, allows researchers to describe the significance of their research in terms of previous research and provide a rationale for why the topic should be expanded in the manner suggested by the researcher.

### **6.3 Conceptual Models for Employee Performance and Motivation**

The second section of this chapter will provide well-researched conceptual models for employee performance and motivation, as well as a brief overview of the impact of transformational leadership on employee motivation.

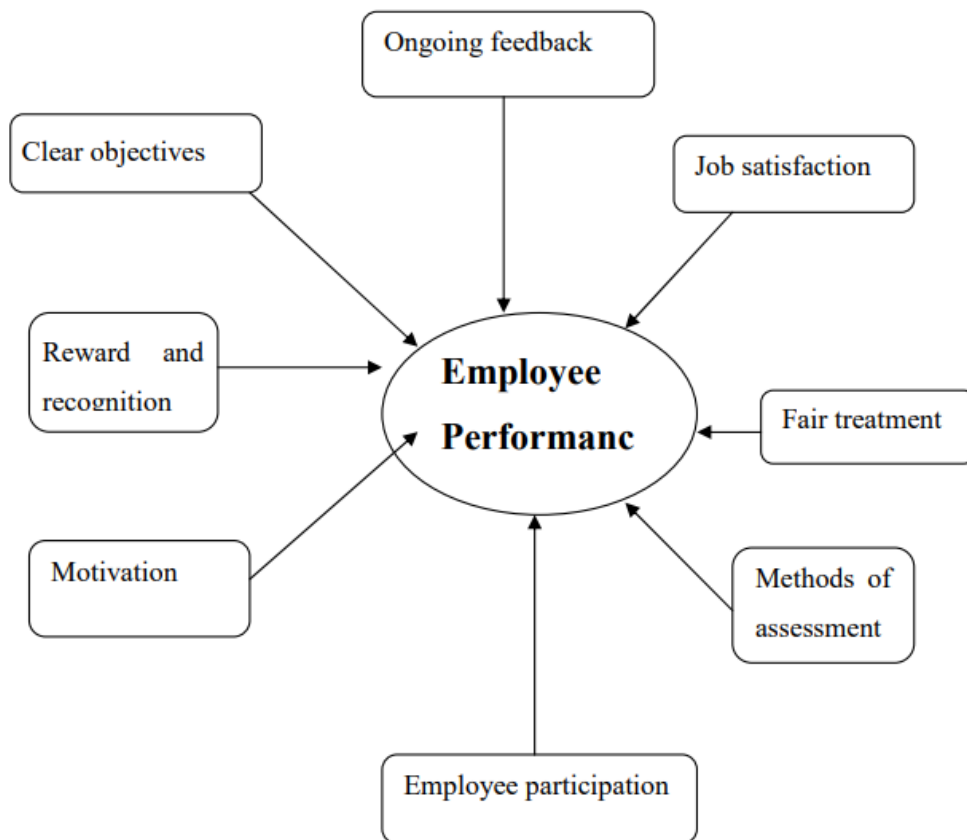
#### **6.3.1 6.3.1 Conceptual model for employee performance**

##### *Work Performance*

Martocchio (2015: 611-617) defines the phrase "job performance" as the total anticipated value to the organisation of an employee's discrete behavioural competencies during a certain period. Martocchio. J (2015: 611-617) classifies job performance into two classifications, mean performance and performance variation. According to Martocchio. (2015: 611-617), average performance rounds out each employee's impact on the company. Average performance helps to smooth out differences from the mean caused by factors outside the employee's control.

Mwaiko (2013: 34) states that assessing and managing employee performance is not a casual undertaking. It is a continuous and, sometimes, complex process. It is the responsibility of those holding positions that supervise others. However, it is a tool that can enhance the university's operation, recognise the employee for good performance, encourage professional development and provide employees with recommendations for improvement. A practical performance assessment should first measure the performance level as accurately as possible and then attempt to explain the obtained level based on a performer's characteristics.

In a study by Mwaiko (2013:34) titled "Factors affecting employee performance in the assessment education sector in Tanzania: a case study of Pugu Secondary School," the author used the below conceptual model to create an overview of factors affecting performance in the education sector.



*Figure 6.1: Mwaiko's Conceptual Framework of Employee Performance.*

Source: Mwaiko, (2013: 34)

Mwaiko explains the factors as follows:

Ongoing feedback.

Mwaiko (2013: 34) explains ongoing feedback as monitoring and controlling continuous processes over a specified period. It is an ongoing performance review procedure, as opposed to those that are based on yearly performance reviews. When feedback is given more frequently, it feels more natural to the manager and the employee, who can build a more productive, authentic work connection. According to Mwaiko (2013: 34), ongoing feedback contributed positively to job performance in the education sector in Tanzania.

Job satisfaction.

Mwaiko (2013: 34) explains that what satisfies one individual may not gratify another as it relates to job satisfaction. Some workers prefer flexibility in their work schedules, while others need to work throughout the day. Greater job satisfaction is likely to lead to higher productivity, linked to higher profitability and proficiency of workers. Workers comfortable and happy in their jobs are considerably more likely to pursue their responsibilities with enthusiasm and determination (Mwaiko, 2013: 34). The research concluded that high job satisfaction is positively correlated to high job performance (Mwaiko, 2013: 34).

Fair treatment.

According to Mwaiko (2013: 34), employees treated justly at work develop trust, encourage positivity, strengthen the commitment to getting the job done, and improve job performance. On the other hand, inequality creates bitterness and resentment toward favoured employees and the company. A dedication to providing equal opportunities among employees in the workplace improves the company's professional image and aids in recruiting excellent employees. Clear expectations can achieve fairness in the workplace, well-written policies, dedication to balanced behaviours, and fair, continuous compliance with the law

(Mwaiko, 2013: 34). The research concluded that there is a positive correlation between treating employees with fairness and job performance.

Method of assessment.

Mwaiko (2013:34) explained two purposes of conducting worker performance evaluation: to honour employees who meet company goals and to determine which goals were not met, and to design a strategy to ensure they are met in the future. One of Mwaiko's ( 2013: 34) motivations for conducting this research was to examine how different techniques of appraisals used by organisations affect the overall performance of employees in the education sector at the operational level. The results showed that most performance appraisals fail to reflect fairly employees' level of performance and have many shortcomings.

Employee participation.

Mwaiko (2013:34) argues that employee participation and involvement are widely regarded to impact job contentment, work performance, and employee commitment to the company, all of which can help the firm compete effectively and efficiently. According to the study's findings, employee work satisfaction, commitment, and productivity will likely improve due to increased employee participation and involvement (Mwaiko, 2013: 34).

Motivation.

Mwaiko ( 2013:34) regards motivation as a determinant of an employee's level of performance; as a result, highly motivated individuals with a high level of job involvement and participation are valuable resources to a company. The study results concluded a positive correlational relationship between highly motivated employees and job performance.

Reward and recognition.

Mwaiko ( 2013: 34) defines employee recognition as when a company's employees are praised for their outstanding work; employee recognition in the workplace fundamentally helps to encourage specific behaviours, techniques, or actions that lead to improved performance and are beneficial to organisational



outcomes. Employee reward does not have to have a monetary value; employee reward can be a simple hands clap or a recognition after completing a particular project (Mwaiko, 2013: 34). Rewarded employees are often more productive, feel more welcomed at an organisation and perform better than those that are not rewarded.

Clear Objectives.

According to Mwaiko ( 2013: 34), clearly defining organisational performance goals can encourage employees and give a benchmark against which they can be evaluated. Employees strive to attain performance goals linked to specific job roles and based on an organisation's values and priorities. Employee performance goals are set by the employer, director, department supervisor, or company's management (Mwaiko, 2013: 34). Clear organisational goals and objective give clear direction on what is expected from employees and contributes positively to employee performance (Mwaiko, 2013: 34).

Maureen Mwaiko (2013: 6) also stated that employers should evaluate and assess their employees regularly, not only for the company but also for the employee to receive feedback on their work quality. Performance assessment and management are essential components of the supervisor-employee relationship. They are parts of an ongoing process of performance planning, review, and development that involves both the supervisor and employee, who together identify common goals that correlate to the higher goals of the unit. A practical employee performance assessment is an interactive process where the manager gives his input on the employee's performance, and the employee gets the chance to point out what she has learned throughout the year. Employers create a plan along with the employee for the coming year on how the employee can develop and improve their performance. Comprehensive employee evaluations are essential to the ongoing performance of employees.

#### **6.4 Conceptual Model for Employee Motivation**

According to Rahim and Daud (2012), motivation is a fundamental psychological phenomenon. It is a force that motivates people's behaviours and work. Luthans

(1998) defines motivating as "the managerial practice of influencing behaviour based on knowledge of what makes people think." It aids in the process of motivating people to act and complete a goal. Motivation, according to Luthans, is the process of arousing, energising, directing, and maintaining behaviour and performance. According to Bartol and Martin (1998), motivation is a force that energises conduct, directs behaviour, and underpins the tendency to persist. Attitude is a key notion in motivation, defined as a good or adverse reaction to objects, people, or events. This definition emphasises that to achieve goals, individuals must act in accordance with the work process of performance management, which ensures the establishment of defined goals and outcomes.

According to Safayet & Sazzad (2021:1), motivation is a primary state of mind that, together with perception, personality, attitude, and learning, is a crucial part of understanding behaviour. Furthermore, motivating is a management approach for influencing behaviour based on understanding what motivates people to act in specific ways (Luthans, 1998). This method is arousing, energising, guiding, and maintaining action and performance. However, motivation should not be considered the entire explanation for action, according to Luthans, because it interferes with and concerns other mediating processes.

Motivation is defined by Safayet & Sazzad (2021:1) as the desire to achieve a goal, as shown by goal-directed behaviour. When we say that someone is motivated, we refer to their willingness to put in their best effort to achieve a task. On the other hand, employee motivation is not the only factor that must be considered to attain maximum efficiency. Furthermore, having an individual skilled at their job and a broad understanding of the subject matter is critical to completing that task. Expertise and knowledge without motivation, on the other hand, are insufficient. As a result, great productivity requires a combination of everything plus motivation. It can be used as a predictor of success in some cases.

In a study conducted by Rahim & Daud 2012 titled "A proposed conceptual framework for rewards and motivation among administrators of higher education provider in Malaysia" to examine the relationship between rewards and employee

Motivation in the University Sultan Zainal Abidin, the above conceptual model was put in use:

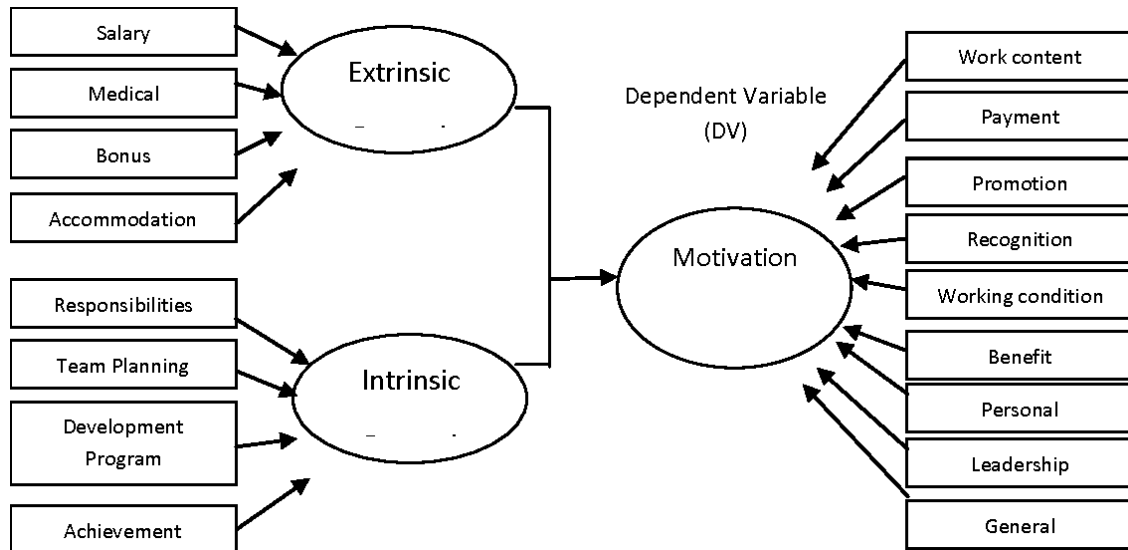


Figure 6.2: Rahim & Daud's Conceptual Framework for Employee Motivation

Source: Rahim & Daud (2012:78)

As the above presented conceptual model examines the relationship between rewards and motivation, the administrators of UniSZA have been taken as the population. Therefore, motivation is a dependent variable, and extrinsic and intrinsic rewards are considered independent variables. The framework of the proposed conceptual model is shown in (Figure 6.2). The following hypotheses are formulated based on the review of works of literature. We hypothesised that: H1: There is a positive relationship between extrinsic reward and Motivation H2: There is a positive relationship between intrinsic reward and motivation.

Rahim & Daud (2012:78) further discussed that as far as motivation is concerned, a reward system is an essential tool for management to channel employees' motivation in desired ways. Minden (1982) defined reward as any enhanced behaviour followed by positive reinforcement. The reward schemes are now being implemented in the public or private sectors. Employees' effort is in the rewards

presented, according to Vroom (1964). Therefore, much money is spent on the reward program. The purpose of this is to boost staff motivation potential of reward, according to Ballentine (2003), is to acknowledge good job performance, provide feedback, make work easier to complete, motivate employees to be more productive, and assist management in achieving their goals.

According to Rahim & Daud (2012:78), different researchers have defined rewards differently. Reward is an external agent with controlling and informative capabilities that are administered when a desired act or task is completed. Numerous businesses, both public and commercial, have adopted the practice of rewarding employees. Organisational incentives were found to be more effective when used in organisations with high levels of employee identification (Rys, 2007). Employees have a high sense of identification when their interests are comparable to those of the organisation where they work.

The reward size must be sufficient to meet the basic human necessities of survival and security (Lawler, 2003). Lawler also mentioned that businesses must choose meaningful rewards for their employees based on their ability to provide them. The distribution of incentives must appear to be fair and reasonable. Members of an organisation must believe there is a connection or contingency between their job performance and the benefits they get. As a result, the rewards employed by an organisation must be valued by the organisation's members. The rewards program will not motivate long-term and will discourage risk-taking behaviour if these components are not there.

Money, direct payment, cash payment, and/or extrinsic incentive are all extrinsic rewards (Bergmann & Scarpello, 2002; Chiu, Luk & Tang, 2001; Milkovich & Newman, 2008). It has three key components: a salary, a bonus, and an allowance (Lowery et al., 2002; Tang, 2007; Young, 1999). Salary is frequently considered a base compensation distributed to employees weekly, monthly, or annually based on employment structure (e.g., basic salary excluding incentives) (Henderson, 2006; Young, 1999). Bonuses are typically viewed as cash payments made to employees depending on their performance (for example, monetary

incentives for meeting job goals) (Bloom & Milkovich, 1998; Gupta & Shaw, 1998; Lowery et al., 2002). Employees who accomplish a particular job or service are rewarded with these pay packages (Anthony, Perrewe & Kacmar, 2002; Dessler, 2006; Ismail, 2007). As an example of an extrinsic reward, income is an integral part of the compensation management system (Drucker, 1999). Individuals engage in work-related tasks to obtain a variety of extrinsic benefits of varying magnitude. Pay, promotions, and business status are examples of extrinsic benefits because the corporation delivers them.

On the other hand, "intrinsic rewards" refers to intangible benefits that originate from the job's content and impact the employee's psychological growth (Williamson, Burnett & Bartol, 2009). It incorporates job-related motivating factors such as autonomy, feedback, and decision-making participation (Hackman & Oldham, 1976). Maslow's higher-level needs give rise to intrinsic rewards (Roberts, 2005). According to the theory, people can give themselves rewards in the form of self-esteem and feelings of accomplishment and growth. Individuals can physically reward themselves for certain types of conduct if they believe they have accomplished something worthwhile, completed a personal goal, learned a new skill, or had a sense of exhilaration or intellectual stimulation. The most significant amount of motivation is present when people perform tasks that are both intrinsically and extrinsically rewarding (Lawler, 2003).

In terms of intrinsic motivational rewards, Rainey and Steinbauer (1999) proposed that three interrelated levels of rewards, namely task, mission, and public service, could improve the efficacy and performance of government organisations.

## **6.5 Impact of Transformational Leadership on Employee Performance**

Leadership currently plays a critical part in the organisation's decision-making process, and the philosophy of transformative leadership can help us better understand how teams perform (Dionne et al., 2004). Given the widespread development of teams in all sorts of organisations, Salas et al. (1992) argue that now is the moment to integrate transformational leadership theory with team performance theory. These days, the term "leadership" is increasingly common.

Various books about leadership and what makes a good leader are available. Furthermore, everyone needs to be a leader; some people are born leaders, while others can learn to be leaders.

Burns (1978) invented the term "transformational leadership," describing it as a process in which "leaders and followers attain better degrees of morality and motivation." Later, leadership author Bass (1985), whose transformational leadership theory was based on Burns' previous concepts, with a few adjustments and elaborations. According to him, transformational leadership is defined by the effect of the leader on followers: followers feel trust, admiration, loyalty, and respect for the leader, and they are motivated to accomplish more than they anticipated to do (Doucet et al., 2015; Robbins & Judge, 2016)

According to Robbins and Judge (2016), transformational leadership produces various beneficial organisational outcomes. While Tyssen et al. (2014) examined transactional and transformational leadership, research shows that transformational leadership is more strongly associated with lower turnover, higher productivity, fewer employee stress and burnout, and more employee satisfaction than transactional leadership. Other authors who compared these two types, Robbins and Judge (2016), emphasised that transformational leadership builds on transactional leadership and produces follower effort and performance beyond what transactional leadership alone can produce. The converse, on the other hand, is not valid. If a transactional leader possesses no transformative qualities, he will most likely stay a mediocre leader.

Mulolli (2021:17) also stated that many authors have researched the relationship between transformative leadership and team performance. The impact of transformative leadership in developing team decision-making abilities was demonstrated by Bass and Avolio (1994). In comparison, Kahai et al. (2000) discovered that transformational leadership is likely to boost group performance if it is instrumental in overcoming social loafing among group members. Transformational leadership was studied to improve multifunctional team invention processes (Waldman, 1994).

## 6.6 Virtual Offices versus Traditional Offices

### 6.6.1 The differences between virtual offices and traditional offices

Virtual offices enable teams to collaborate from anywhere, anytime, and with anyone. The value of virtual offices is further enhanced by the fact that it is a cost-effective solution compared to the traditional physical office setup. While the physical office setup is expensive, virtual offices are a fraction of the cost. The virtual office setup is a cost-effective solution for remote working and telecommuting. Virtual offices' best part is allowing people to work from home (Gowda et al., 2021:150).

*Table 6.1: Comparison of Virtual Office and Physical Office*

Characteristics	Virtual Office	Physical Office
Definition	The option used by the companies to give their employees a remote working space and access without the need for an extended office lease	Refers to the option for a central work location for daily tasks in a business setting.
Costs	They have relatively lower costs for setting up of an 8-bit environment	Has many costs which include the costs in acquiring office, furniture, supplies, equipment and other overheads costs plus the hefty rent
Commute	Employees do not need to	Employees must report to

	come to the office daily	the office in a physical setting.
Flexibility	Provide the workers flexibility to do their work from any location	Do not offer the flexibility to work from any location
Employment communication and collaboration	Promote disconnectivity, lack of trust and companionship since there is limited contact with other employees.	Comparatively there is ease of communication and collaboration between employees in physical offices

Source: Gowda et al. (2021:154)

Cascio (2000) claims that the difficulty for leaders in virtual offices, such as telework or working from home, is to set and enforce ground rules for comprehensive communication and performance management systems. For leaders, the most challenging aspect of implementing virtual working circumstances is communication. For example, leaders must learn to balance email, phone, video conferencing, and face-to-face communication to hold productive audio meetings. The next difficulty for leaders is to manage staff performance, which requires numerous processes, including defining performance, facilitating performance, and encouraging Performance (Cascio, 2000).

## **6.6.2 Factors impacting virtual offices**

### **6.6.2.1 Physical workspace environment**

The quantity of space, layout, ambient circumstances, and internet and Wi-Fi access are all physical workplace factors for mobile knowledge workers (Ng, 2016). Therefore, preparing the physical/home environment, which includes setting up an atmosphere that is suitable for working, such as a dedicated workstation,



often with physical boundaries (e.g., a room with a door), is one of the solutions for overcoming telework problems (Greer & Payne, 2014).

**Working Conditions:** The work environment is critical for employees to carry out their responsibilities. Employees will be more motivated to work if they work in a pleasant atmosphere, which will affect employee morale and performance. Therefore, the suitability of the working environment is one of the most critical telework aspects influencing telework outcomes.

**Traditional physical office:** According to Rorong (2016), physical workplace environment aspects should be scrutinised in all workplaces since the findings can help build a working environment that can increase employees' experience and performance. The indoor climate is an example of a physical environment. Temperature, lighting, and acoustics are all factors to consider. Usually, firms focus on improving performance at a reduced cost, yet employees must enjoy their jobs. When it comes to employee satisfaction, many believe that giving up one's desk interferes with basic human requirements for privacy, territoriality, and status expression.

Employees had difficulty when they did not feel at ease in their workplace, which resulted in lower employee performance in the businesses. In addition, the company's furniture and equipment were inconvenient for the employees, especially when they needed to sit for extended periods to do their tasks. For example, office ergonomics should be implemented in every firm to meet employees' needs and ensure they are satisfied while working for the company.

Where employees spend lengthy hours within the office building, physical office surroundings may impact their well-being. Employees who are well-equipped with environmental assistance at work are more likely to be satisfied and demonstrate a high devotion to their employer. In addition, employee performance will be boosted by a better physical office environment. Employees are the foundation of any business. Employees are influenced to give their best effort depending on how well their work environment is. Committed individuals who are strongly motivated by a

positive work environment pool their time and resources to achieve corporate objectives.

The physical workplace environment is where these individuals can perform their duties. The lighting, ventilation, and temperature are part of the physical work environment. The notion that distraction is the component that has the most negative impact on perceived productivity is supported by office layout, which creates a physical environment that influences the behaviour of office occupants. Interactions at the office, on the other hand, have the most beneficial impact on perceived productivity. Horr, Arif, Kaushik, Mazroei, Katafygiotou, and Elsarrag (Horr, Arif, Kaushik, Mazroei, Katafygiotou, & Elsarrag, 2016).

Lighting: Natural and artificial light are both used in office lighting. Natural light is a free resource that enters the office through a window or a skylight, whereas artificial light is light that is manufactured and planned (Sarode & Shirsath 2012 ).

Layout: Desks, seats, filing cabinets, shelves, and drawers make up office furniture (Sarode & Shirsath 2012). Computers, printers, photocopiers, and plotters, among other office equipment, have become essential job tools for improving performance. (Kingsley, 2012).

## **6.7 Transformational Leadership**

Cascio (2000) claims that the difficulty for leaders in virtual offices, such as telework or working from home, is to set and enforce ground rules for comprehensive communication and performance management systems. For leaders, the most challenging aspect of implementing virtual working circumstances is communication. To hold productive audio meetings, leaders must learn to balance email, phone, video conferencing, and face-to-face communication. The next difficulty for leaders is to manage staff performance, which requires numerous processes, including defining performance, facilitating performance, and encouraging Performance (Cascio, 2000). Organisational Support

Individual and organisational characteristics, according to Aboelmaged, Mohamed, and Subbaugh (2012), are significant elements determining teleworkers' perceived productivity. Job security, job happiness, work flexibility, organisational commitment, and management support have all been identified as essential factors in teleworking productivity. The government should supply and upgrade critical IT infrastructures, such as high-speed internet, as well as necessary training for both managers and employees to ensure that the telework policy is implemented successfully (Valmohammadi, 2012)

Telework organisational support, namely the use of technology, support related to the use of technology and variables other than technology (Baker, Avery, & Crawford, 2006). Technology use consists of sufficient IT support, which refers to assistance with technology-related problems and questions from the telecommuting employee and appropriate telecommuting technology.

## **6.8 Conceptualised Model for Virtual Offices and Traditional Offices**

Using employee performance and motivation as intervening variables for employee productivity levels in virtual and traditional offices, this chapter will propose a conceptualised model for virtual and traditional offices. Factors affecting the office environments are taken as independent variables, and productivity levels are taken as dependent.

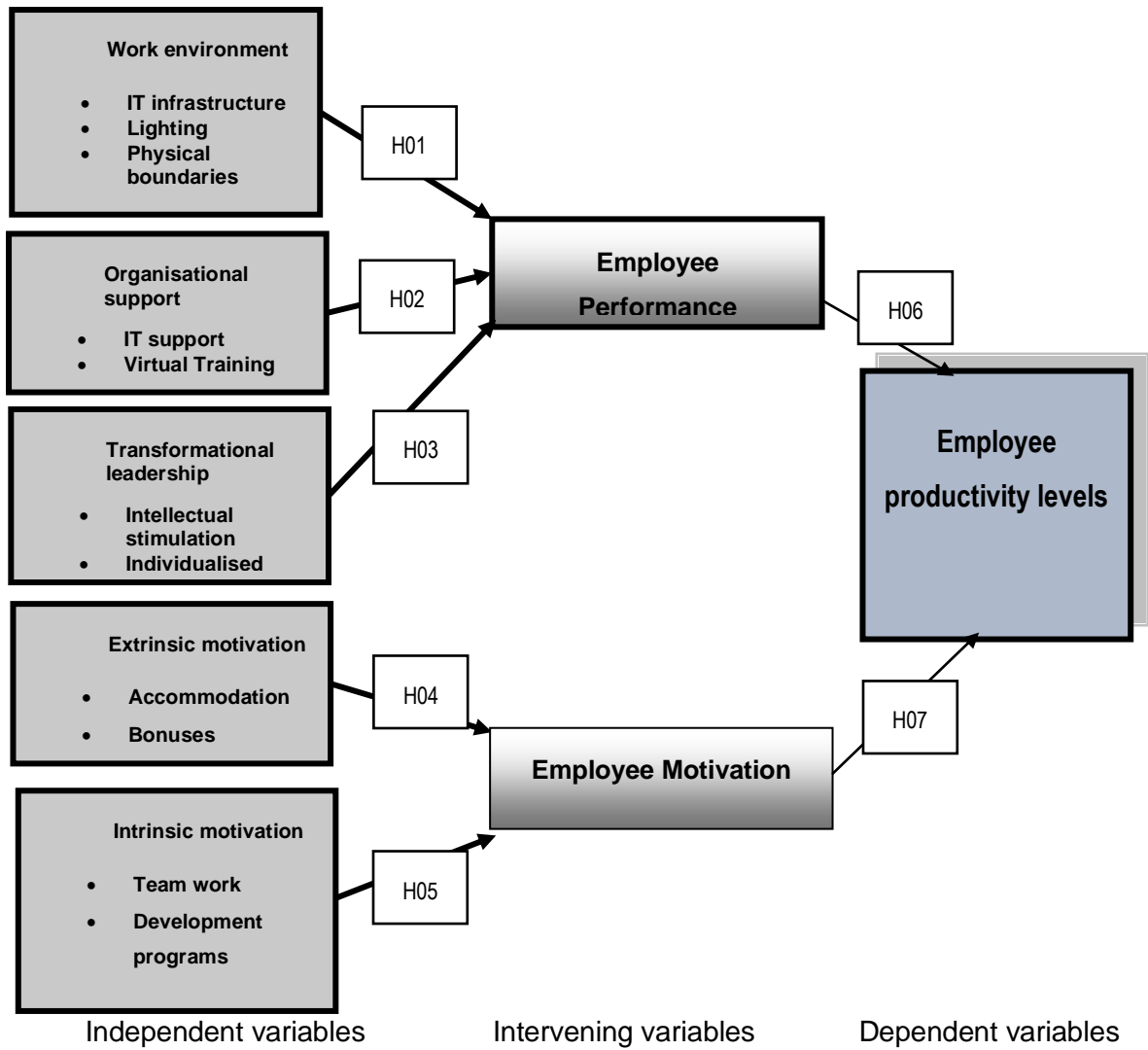


Figure 6.3: The conceptual model of virtual offices/ working from home

(Source: Researcher's construct)

The hypotheses concerning the management perceptions are stated below:

*The first set of hypotheses:*

H01 There is a relationship between the work environment and employee performance

H02 There is a relationship between organisational support and employee performance

H03 There is a relationship between transformational leadership and performance

*The second set of hypotheses*

H04 There is a relationship between extrinsic motivation and employee motivation

H05 There is a relationship between intrinsic motivation and employee motivation

*The third set of hypotheses*

H06 There is a relationship between employee performance and employee productivity levels

H07 There is a relationship between employee motivation and employee productivity levels

## **CHAPTER 7**

### **RESEARCH METHODOLOGY AND DESIGN**

#### **7.1 Introduction**

In the scientific method of research, the researcher uses standardised methods to collect empirical data to resolve particular questions; the key to any successful scientific project is careful planning and preparation. This should involve carefully selecting a study project, research design, research constraints, a particular sample technique, and using the proper statistical methods for data analysis.

It is essential to review how the researcher collected the data for the investigation. It is crucial to define research before discussing the study design and technique. For the sake of this study, the researcher will employ a few definitions of research appropriate for the context of the research being discussed.

The choice of an acceptable research methodology and design will be covered in this chapter with an overview of the paradigm, research philosophy, data collection methods and instruments. Following a summary of the population, the sample will be discussed, along with selecting an appropriate sample size representing the population across all independent variables covered in Chapter 6. The researcher can generalise the research findings to a larger population due to its representativeness. Statistical techniques will be used for the analysis, and each technique will be described.

Research is defined as the methodical gathering, analysis, and interpretation of data to produce new facts, address a specific topic, and find a solution to a problem. According to Grover (2015:1-8), The term research, in its most basic form, can be defined as the search for new knowledge and the search for the truth. However, he further explains that formally, research can it is a systematic examination of a problem utilising a deliberate strategy that begins with selecting a method for creating a blueprint (design), acts upon it by designing research hypotheses, selects methods and techniques, selects or develops data collection

tools, processes the data, interprets the results, and concludes by presenting a solution or solutions.

The study follows a descriptive design where it would explain it any further in terms of the research methodology in terms of being able to tell what method the study used.

This study follows a descriptive research design which will be explained in more detail. The researcher will further explain the terms of research methodology as an aid to tell what methods the study made use of. The study would be focused on the following topics: paradigm, the research philosophy, research design, research method, data collection method, data collection instruments, population, sampling method, sample size, data analysis, validity and reliability, ethical consideration and chapter summary.

## **7.2 Purpose of the Study**

This research study's primary focus and intent are to investigate the impact of office choice on employees working as administrators at court during the covid 19 pandemic under the lockdown restrictions and ordinary circumstances, drawing a comparison between working at home and working in physical office settings. After the Covid 19 pandemic and technological advances, the office environment keeps advancing, but the question remains 'Which office choice is more ideal and under which working conditions are employees more productive?'

Through this research, the researcher aims to illuminate the subtle differences or unexpected similarities between the productivity levels of employees working from home versus those working in physical offices.

It has become the new phenomenon that working from home is flexible and cost-effective, which makes employees more productive. Still, however correspondingly, Ofeke et al. (2020:294) state that, while this transition can have many positive effects, such as allowing for flexible working hours, reducing time spent in traffic, and allowing workers to live in remote locations, it does necessarily require workers to be capable of performing productively in work environments that

may be less than ideal as new systems and working conditions introduce new requirements. However, the authors also argue that the critical difference today is consumers' variety of devices. In contrast, in the past, most information work were done on stationary desktops or mobile laptops that allowed for a few hours of work but with restricted input and a fixed smaller screen. For these reasons, a study looking deeply into both the pros and cons of the different office environments is essential.

### **7.3 Research Objectives**

Research objectives are defined as "Specific statements highlighting the crucial issues to be focused on in a research study (Thomas & Hodges 2010:39). Typically, a research project will include a variety of specific study goals.

Research objectives: In conducting this research, it is expected that the findings might provide a basis for further research into the impact of office choice on employee productivity levels of administrators working in the institution under investigation. Therefore, the following are the objectives of this study:

Primary objective: To determine if there are any differences between working from home or the office in terms of productivity.

Secondary objectives.

- To identify the impact of working alone from home on productivity as expected by the line manager
- To identify if working from the office produces different levels of productivity from those experienced when working from home
- To determine employee-self-evaluation of performance levels working from home or working from the office
- To evaluate if the work environment does impact employee performance in terms of regular duties and performance
- To identify requirements for a virtual working environment to be as productive as the known productivity from the office environment.



## **7.4 Research Questions**

Hodges & Thomas (2010:38–47) explains research questions as an alternative to research objectives, in which the significant concerns that will be the focus of a research endeavour are expressed as questions.

In essence, research questions interpret the research objectives as inquiries to fill the knowledge gap. Research questions are crucial because they determine the topics that the literature review should address and aid in constructing the research tool, the questionnaire. This study's research question is divided into two parts: the main research question and the sub-research questions.

### **7.4.1 The main research questions.**

The primary research objective, as derived from the problem statement generated by the literature review, informs the main research question. The leading research questionnaire determines the theme for the research questionnaire.

What impact does office location have on employee productivity?

### **7.4.2 Sub-research questions**

These are extensions or components of the leading research question that allow for a more comprehensive response to the question under study.

- What impact does working alone at home without the presence of the line manager have on employee productivity levels?
- What are the differences in socialisation between working with colleagues from the office and virtually?
- What are the perceived advantages of working from the office in the university compared to working from home?
- What are the perceived disadvantages of doing university admin work from home compared to working from home?
- What are the requirements for virtual admin work at the same efficiency as working from the office?

## 7.5 Research Hypothesis and Theoretical Research

According to Coldwell and Herbst (2004: 83), a hypothesis is a statement about ideas that can be tested empirically to see if they are true or false concerning observable occurrences. It is a conjectural statement of the relationship between two or more variables (a symbol or concept that can assume any of a set of values) that has clear implications for testing the stated relations, according to Hamilton & Hershberger (2011: 1077-1009).

A hypothesis is defined by Shields and Rangarajan (2013:109-157) as a proposed and testable explanation of a phenomenon that is generally based on previous observations. "Motorists who talk on the phone while driving will be more likely to make errors and cause accidents than motorists who do not talk on the phone while driving," says one hypothesis.

The following hypotheses Were constructed on information from the previous literature review:

***"Many employees perform better in an environment where they feel managed and monitored than on their own at home."***

## 7.6 Delimitation of the Research

The study will be limited to admin staff at a selected university in the Western Cape, primarily because the cost would be affordable for the student. In addition, only admin staff will be surveyed since their work has always demanded close supervision by their managers, unlike academics who work flexitime predominantly and come in only for lecturers or meetings. Administrators primarily work with paper/ computers and records, which have been transferred to working from home; these are the target population for the study.

## 7.7 Significance of the Research.

Most of our work has always involved going to the office, meeting with friends and co-workers, and chatting as we work. The epidemic caused most operations to halt; therefore, new strategies for working from home had to be developed. Administrative workers had to stay away and work from home because academics

could easily hold lectures on Zoom and Microsoft. The study compares working from home with working from the office to gauge how people feel about their performance; this could become the norm in the future.

### **7.8 Paradigm/Philosophy**

Numerous theories of thought have evolved, but they may be broken down into two: positivism (natural sciences are quantitative) and anti-positivism (social sciences are qualitative). The use of both is currently widespread in what is known as mixed research methodology, which combines quantitative and qualitative methods. To provide both depth and breadth in comprehending the phenomenon being studied, this research will use a combination of approaches.

### **7.9 Research Design and Methodology**

The research design outlines what should be done or the steps that must be completed during the research process and serves as a road map. The researcher chose the descriptive research design because it allows for multiple approaches, enabling a comprehensive comprehension of the issue. Along with this, the decision was made to apply mixed research approaches, which are compatible with combining qualitative and quantitative research methodologies. The researcher can explore the breadth and depth of the subject under study using a mixed research approach.

### **7.10 Research Approach**

A mixed research technique will be adopted to enable a thorough description of the phenomenon under study, providing depth and breadth. A more profound comprehension of the scenario can make it possible to collect enough data or information by permitting a more thorough investigation of the circumstances and relationships between the studied variables. Research approaches are traditionally divided into qualitative and quantitative categories, dramatically dividing academics, particularly in the social sciences (Onwuegbuzie and Leech, 2005). However, according to Myers (2009: 8), qualitative research examines social and cultural issues in-depth and focuses on text, as opposed to quantitative research,

which explores population-wide general trends and concentrates on numbers. Qualitative research focuses on non-numerical and descriptive, using logic and words. In contrast, the researcher will examine the importance of the hypothesis more methodically and will also use data. Its goal is to understand, feel, and explain the situation. So, this survey will employ a hybrid research methodology.

### **7.11 Research Method**

According to Wilson (2010:2–20), research is a process of inquiry and investigation; it is systematic and methodical and advances knowledge.

A scientific investigation known as research aims to discover new facts and test theories, to name a few objectives. It is the methodical gathering, examination, and interpretation of facts to produce new information, provide an answer, or address a challenge (Upadhya and Singh 2008:178).

To estimate or create existing knowledge, explore existing situations or problems, provide solutions to problems, investigate and scrutinise more general issues, build or generate new procedures or systems, elucidate new phenomena, produce new knowledge, or any combination of those above, is the purpose of research (Wamba, Akter, Edwards, Chopin & Gnanzou, 2015:234-246).

As stated by Williams (2011:65-70), there are various forms of research, including exploratory research, descriptive research, analytical research, and predictive research.

### **7.12 Research Design**

According to Blumberg (2008:195), a research design is a plan and framework created for the collection, amount, and examination of data used to address a research topic or support a hypothesis. The research design demonstrates the logical foundation of the research project and enables the researcher to collect data that will address the posed research question (Blaikie, 2009:15).

One can conclude from the definitions of research design provided above that it is used to collect data or information that will help answer the research question(s). According to Kitchenham & Pfleeger (2008:63–92), obtaining relevant evidence

makes it simple to describe the evidence required to address the research question, test a specific theory, and assess a particular phenomenon.

The research method and design significantly impact a study's findings since there should be a reliable result; there must be an agreement between the design and the methodology. A combination of qualitative and quantitative methodologies was utilised in this study because it was mostly descriptive and partially exploratory.

To produce measurable data that can be used for statistical analysis and the testing of hypotheses, quantitative research takes an objective approach and examines phenomena (Welman, Kruger, and Mitchell (2005:8–10). When conducting quantitative research, questionnaires, surveys, and experiments are used to collect data. This data is then updated and tabulated in numbers, enabling statistical analysis to characterise the data (McNabb, 2013:125–393).

By maintaining the study process as constant as feasible, quantitative researchers attempt to comprehend the facts of a research investigation from an unbiased standpoint. They concentrate on the factors that cause behaviour and the body of unchanging facts. They manage the study situation's structure and investigation to identify and isolate variables. They often aim for more significant numbers of cases, place more emphasis on dependability, which is a consistent and reliable measurement of data, and base their analysis of the outcomes on statistical significance (Welman et al. 2005:8–10). To comprehend social and human activities, qualitative research employs a subjective approach to gather non-numerical data that reflects the perceptions of the research subjects

Because so little is known about the issue at hand, Flick (2009:11–127) highlights that qualitative research aims to explore and find concerns concerning it. The dimensions and qualities of a challenge are typically undetermined. It uses "soft data" to obtain "rich data." The qualitative researcher should then make an effort to go beyond acting as a participant observer in the environment that is being studied. Additionally, they should deliberately strive to place themselves in the position of the individuals they are seeing and studying to understand their actions,

decisions, behaviour, habits, rituals, and other aspects of their lives from their point of view (Mouton 2007:271).

Because of its adaptability and capacity to regulate or accept the concurrent use of qualitative and quantitative research methodologies, the descriptive research design will be utilised. As a result, a thorough comprehension and a sound analysis of the issue will be possible.

#### **7.12.1 Methods utilised for literature review**

The researcher used reputable journals, books, conference papers, and many more reputable sources for literature review to acquire information from the suggested sources. The researcher was able to formulate his research question and problem statement and write the part on the literature review thanks to these published, reputable sources (Blumberg, 2008:86). The researcher created several sub-questions for the research to spur further investigation into the topic at hand as a result of how other scholars defended and supported their research.

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#### **7.12.3 Characteristics of the population**

The population under survey were 100 Administrators from Cape Peninsula University of Technology (CPUT), which is in the Western Cape, South Africa from the period 2019 till 2022, who was working from home during the covid 19 lockdown.

#### **7.12.4 Target population**

For this study, the term population refers to the participants who have particular characteristics and are made up of the entire group of people from which the study will be done (Curry, Nembhard, & Bradley, 2009:1442-1452) and (Welman, Kruger and Mitchell, 2005:52). According to Mendenhall, Beaver, and Beaver (2009:8), the population is the collection of all metrics in which the researcher is interested. The population is integral to posing the primary question (Friedman, Furberg and DeMets 2010:55).

According to Mendenhall, Beaver, and Beaver (2009:8), the population is the totality of the measures in which the researcher is interested. In this study, administrators working or employed in a particular (chosen) faculty at a higher education institution in the Cape Metropolis are the target/study population. Due to the Disaster Regulation, implemented in response to the Covid 19 Pandemic, these administrators were forced to work from home. All of their necessary equipment was moved to or set up at their houses as requested by the workers. All had access to the internet and the ability to communicate virtually.

#### **7.12.5 Sampling frames, sampling and sample size**

According to Sadler, Lee, Lim, and Fullerton (2010), a sample is a population subdivision that should be representative, meaning each sample unit should reflect the traits of many of the populations it represents. The sampling theory, which aims to make sampling more resourceful, is what one uses to understand how to choose a test group methodology. According to Blumberg (2008:228), a sample is a portion of the population chosen for the study, and sampling is the process by which that portion of the population is chosen. The population members on the correct list who were administrators from the chosen institution made up the sample frame for this investigation.

Sample size: the total number of people who would qualify to participate is (according to the official record) 120. Using the systematic random selection sampling method, at least 60 people (50% of the total number of administrators) will take part / be respondents in this research. Fugard and Potts (2015:669-684)

postulate that sample size is an essential feature of sound scientific research and that the higher or larger the sample, the greater the possibility of more accurate findings. The choice of 60 (50%) was based on the understanding that the sample frame is not significant and complemented by the expected ease with which the population can be accessed.

Churchill & Iacobucci (2009:283) said that sampling should involve six processes, including explaining the population, identifying the sampling frame, choosing a sampling procedure, figuring out the sample size, picking the sample elements, and gathering data from the chosen elements. Figure 7.1, which is located below, shows these steps.

### **7.13 Measuring Instrument**

The questionnaire that was used in this study went through several stages of development because the researcher had to include all the factors that needed to be taken into accounts, such as developing alternative research questions based on the literature review that was done, the acknowledged research problem, and the study's purpose. The researcher adjusted some of the research questions to become pertinent for getting the necessary data when he chose the research instrument, identified the study's objectives, planned the method or procedures to collect data, and prepared and reviewed the questionnaire. Given that they were created for administrators, all questions were written in English or asked in English.

#### **7.13.1 Pre-testing of the questionnaire**

The questionnaire was pre-tested at Cape Peninsula University of Technology Higher Degree Committee to improve administration, reliability, and validity (HDC). This pre-testing was also carried out with the knowledge that a well-designed and pertinent questionnaire would raise the survey's response rate, which appears to have benefited the researcher. The final questionnaires that were distributed incorporated advice from the statistician, the head of the business administration department, and the researcher's supervisor. From this vantage point, the



amended instrument enhanced the proposal's appropriateness, dependability, and legitimacy.

### **7.13.2 The reliability of the instrument used**

The capacity of the tool to elicit the same response from the same subject even when posed differently is known as reliability. As Drost (2011:105) suggests, internal consistency assesses regularity within the instrument and raises the issue of how well-aligned a group of items is. Therefore, the questions' clarity and relevance to the study objectives are essential factors in the instrument's dependability. If any measurement procedures are utilised, they should produce consistent results when repeated.

### **7.13.3 Instrument validity**

Instrument validity is the degree to which an instrument measure accomplishes what is anticipated to do or measured, according to Blumberg (2008:313). It should be emphasised that there are two categories of validity, internal and external, and each has advantages and disadvantages. Since validity has to do with how accurately the question is answered, a validity instrument may occasionally be trustworthy yet invalid for the intended goal. As irrelevant information was removed from the questionnaire to make it bias-free, the questions in this study were brief, straight to the point, and pertinent to the study's purpose. By carefully examining each questionnaire's questions, the instrument's validity was increased, increasing the likelihood that the data collected was accurate based on the questions' deletion and review.

## **7.14 The Research Instrument Design**

In a quantitative study, it is crucial to ensure that the researcher first determines and defines research topics that can be tested theoretically and practically (Okeke, 2009:116). The researcher created straightforward questions that were simple for both the researcher and the respondents to grasp because all unclear questions were clarified before being given to the respondents

Zikmund was cited by Jowah (2013: 227–232) as saying that the response rate might be improved by paying careful attention to the questions' structure, design, and format, as well as taking peer reviewers' comments into account and making the necessary modifications. The new instrument thus increased the proposal's acceptability, dependability, and validity. Ku (2010:1085-1102) believes that the created questionnaire should only ask for rational and consistent information to increase reliability and validity.

### **7.15 Data Collection Method and the Research Instrument**

After careful consideration, it was decided to collect data for the study using a questionnaire. A series of planned questions arranged logically or consecutively to gather detailed information for particular goals in a research survey, according to Jowah (2015:67). It was deemed perfect because of the benefits that come with using questionnaires, such as the fact that they are easier to administer, have standard questions, can be sent, and do not require an explanation if they are correctly constructed. The drawbacks were, among other things, that they might not be well understood and might omit certain information that a respondent may have intended to offer. However, the questionnaire option was considered to have advantages that outweigh the stated or perceived disadvantages. The questionnaire has three (3) parts: SECTION A – Biography, SECTION B – Likert scale and SECTION C – Open-ended questions/requests.

According a questionnaire is a set of thoughtfully crafted questions that have been thoughtfully organised to elicit trustworthy answers to research questions. Many people can be readily contacted through a questionnaire, and quantitative, easily analysed responses can be acquired for a research topic.

### **7.16 Ethical Considerations**

The questionnaires will be uniform and generic so that any administrator can use them without revealing the source. All the respondents have a right to refuse to respond to the surveys or sections of the questionnaire with which they may not be comfortable. It will be presumed that people are either unavailable or unwilling to participate in the survey if they do not respond within the needed/stipulated

response time (7 working days) and extended time indicated by the reminder email. None of the responses will be presented to any authority or manager as proof that a specific person provided them. All responses are guaranteed to be kept private. To maintain anonymity after the survey, the questions asked will not be of a specific type to be able to be traced to a specific responder but instead will be of a general nature as referring to operations in the generic sense.

Three ethical, social science standards were upheld by the researcher (Hesse-Biber and Leavy, 2010:85):

- Complete disclosure: The respondents were informed of the researcher's complete identity and the reason for the study.
- Informed consent: The researcher made sure that the respondent's participation in the study was voluntary and informed, based on their understanding of the purpose of the study, its risks and benefits, how the findings will be used, and the fact that participation is optional, can be discontinued at any time, and that the respondents' identities will be protected; and
- By maintaining moral integrity, the researcher ensured that the research design, methodology, and conclusions were reliable and accurate.

### **7.17 Data Analysis**

In terms of data analysis, it is crucial to keep in mind that the research process consists of five stages: planning, data collection, editing of data collection tools when necessary, coding or capture of the information gathered, and data analysis. Descriptive statistics were employed in this study to order and summarise the data using tabular and graphic representations, with the generation of descriptive measures where appropriate.

### **7.18 Data Analysis and Interpretation**

Procedures for preparing data After collecting the data, the researcher immediately prepared it so that if there were any inaccuracies on the questionnaires or incomplete or ambiguous responses provided by the participants, she might

correct them and make the data computer decodable. The researcher went through the data editing, coding, and classification phases to ensure that the questionnaires met the criteria for collecting research-worthy data.

Validation is defined by Leung (2015:324) as the appropriateness of the tools, processes, and data. Even if the research question is not valid for the expected outcome (Baxter & Jack, 2008:544-559), the research design is valid for sampling and data analysis, and finally, the domino effect and conclusions are valid for the sample and context. Data validity is determining whether a survey's consultations or annotations were carried out correctly and in the manner expected.

**Data entry:** Before transforming the raw data into useful information, the data was directly entered and captured in Excel. All the questionnaires were paper based because the researcher needed to print the soft copies emailed to him to work with hard copies.

**Data cleaning:** Once the data was entered into the laptop before analysis, the researcher double-checked the data to ensure that it was not incorrectly entered, such as ensuring that the number of copies received corresponded to the number entered on the laptop or computer and to ensure that there was no duplication or spoiled papers where the respondents answered more than one option on the Likert scale.

### **7.19 Data Verification Methods**

Data authentication is a practice in which various types of data are tested for correctness and discrepancies after data relocation is completed (Sargent, 2013:1224), which helps to determine whether data was correctly transferred from one source to the other. It is important to note that when verifying, it may be necessary to deal with data juxtapose to avoid data loss and unnecessary errors.

According to Jowah (2013:232), verification is concerned with determining whether an investigation plan is fully translated into practice, as well as checking the research design against the objectives, the questionnaire against the evidence coverage, and the interviews carried out as the design intended. It is important to

note that this study used two methods to verify the data: data re-entry and output analysis.

## **7.20 Conclusion**

Having done the above, one can see that the section under discussion did justice in outlining the determination of the research methodology of this study, exploiting valid answers to a research question and sub-questions.

Data was collected utilising questionnaires with some open-ended questions to allow an individual's opinion to be expressed where necessary. The researcher used a descriptive method to analyse the data and verify its reliability. Research needs to be structured so that the signal additionally bears on different rival explanations and enables us to categorise which of the thought-provoking explanations is most likely to be acceptable and valid. Finally, the researcher explained the sample selection, described the procedure used in designing the instrument and collecting the data, and explained the statistical procedures used to analyse the data.

## **CHAPTER 8**

### **DATA ANALYSIS, FINDINGS AND INTERPRETATION**

#### **8.1 Introduction**

The primary intent of this study was to draw special attention to the impact of office choice on employee productivity levels and to illuminate the subtle differences or unexpected similarities between employees working in virtual offices and those working in traditional offices. Due to advances in technology in the past years and the changes in work conditions enforced by the Covid 19 lockdown, the work environments have changed and returning to normal conditions is still in question for some organisations. Therefore, the assumption was that due to the COVID-19 pandemic and the Fourth Industrial Revolution technological advancements, employees working in virtual offices are more productive than those working in traditional offices. Therefore, the main objective of this research was to determine if there are any differences between working from home and working from the office in terms of productivity. Ultimately this research will assist different institutions, organisations and companies in the decision-making of office choice based on a favourable office that will enhance the productivity of its employees.

This chapter will present the results that were obtained when conducting this research. The results will be presented in a question-answer format following the questions in the questionnaire and the responses to each question.

The questionnaire was divided into sections: Section A – Biography, Section B- Liker scale and Section C – open-ended questions. Each question as it appears in the research instrument is repeated here, followed by the responses from the respondents.

## 8.2 Data analysis, findings, and interpretation (questionnaire)

### 8.2.1 Section A. Biography

This section explicitly dealt with the biography of the respondents, primarily to evaluate the suitability of the candidates for the survey. The target was those employees within the different departments in the institution who were directly involved with performing their administrative duties at home during the lockdown. The section, therefore, seeks to establish the suitability of such candidates for this survey.

Question one; What is your position in the institution? A question seeks to identify and classify the respondents along the lines of suitability for the survey. For example, some positions may not have much to do with performing administrative duties or assisting in the administrative departments.

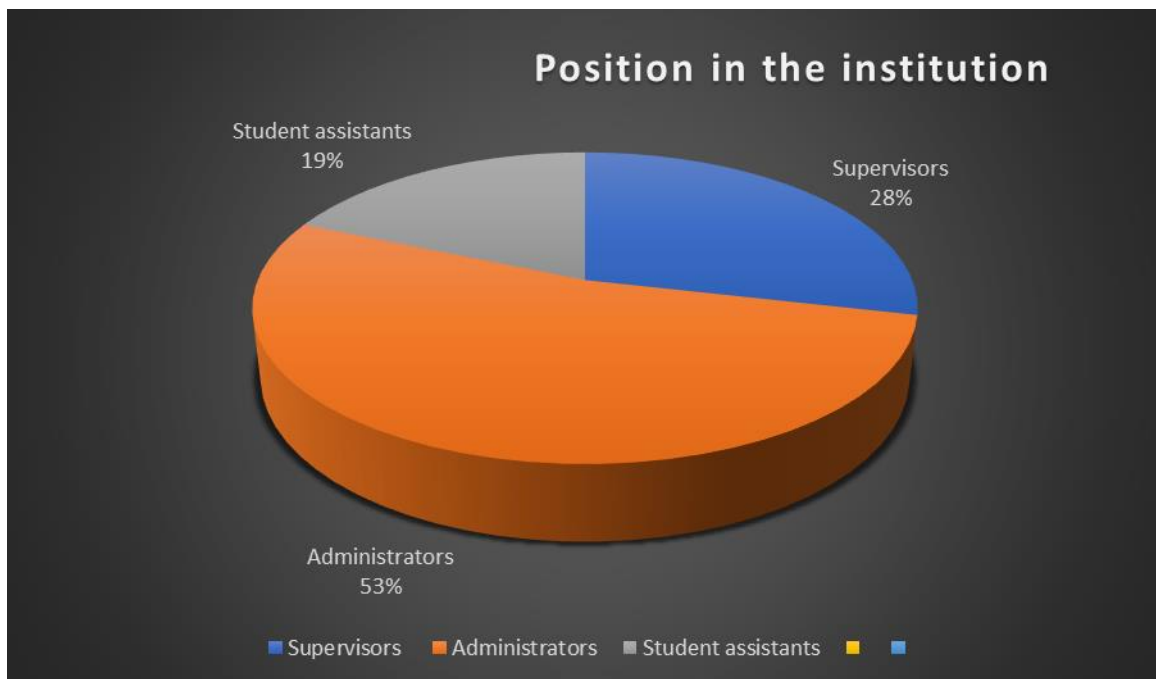


Figure 8.1: The positions of respondents to this survey

Source: Author's construction

Response: Figure 8.1 above illustrates the percentage of employees with different administrative positions in the institution. 19% of the employees were student assistants. 28% of the employees were supervisors, and the majority which was 53%, were administrators. 2. other, specify There were no responses that chose others.

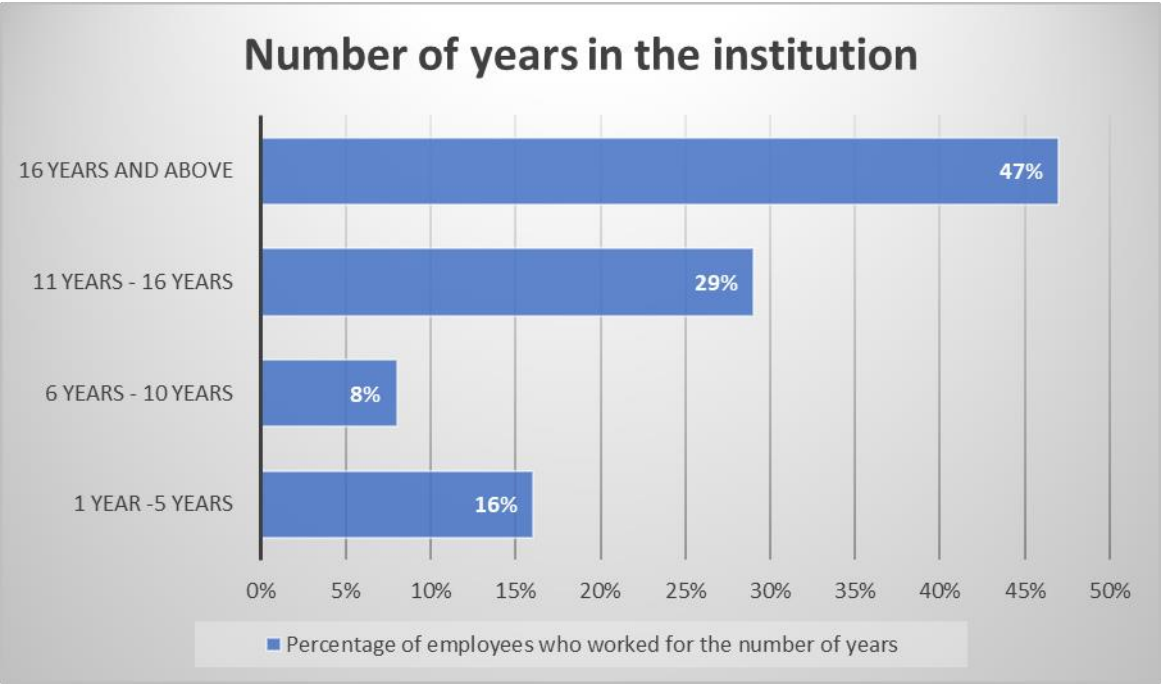
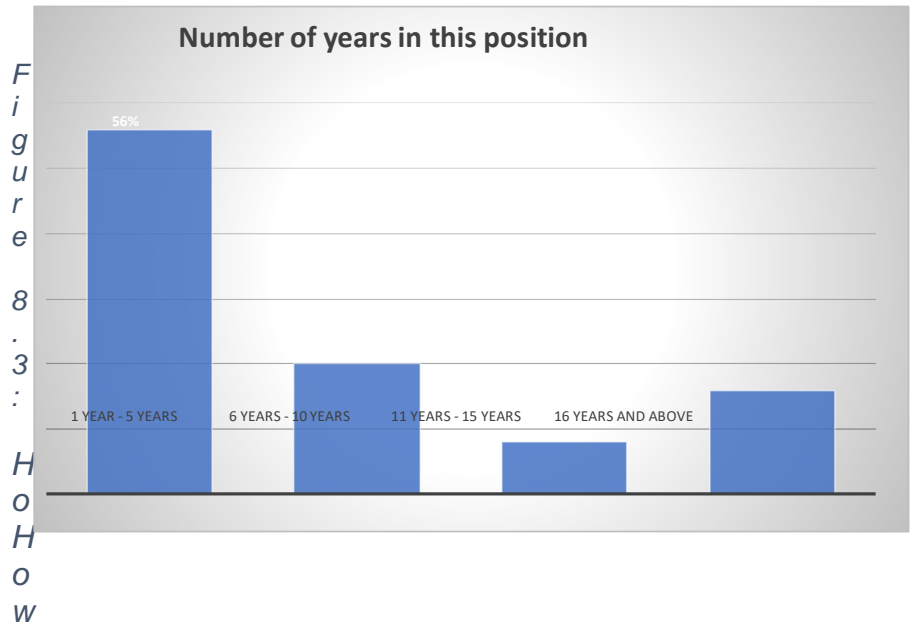


Figure 8.2: Number of years in the institution

Source: Author's construction

Response: 47% of the employees performing administrative duties have worked for the institution for 16 years and above, followed by 29% of the administrative employees who worked for 11 to 16 years. 16 % of the employees that performed administrative duties at the institution worked for 1 to 5 years, and 8% worked for 6 to 10 years.

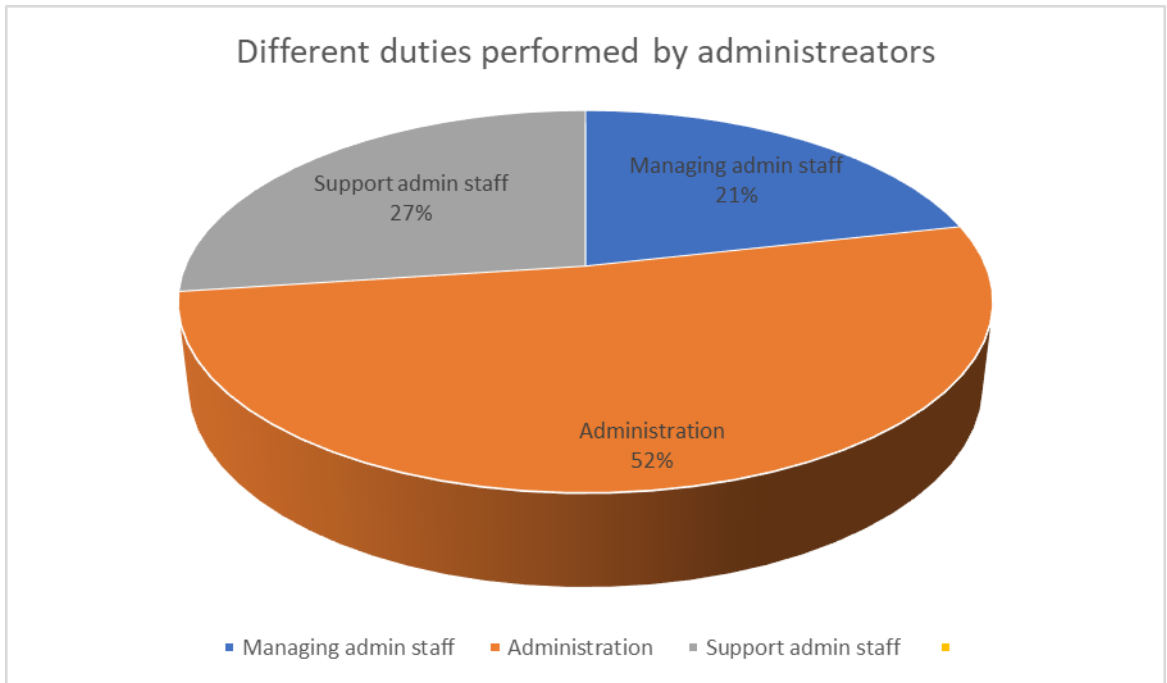




*m*  
*any years have you worked in this role?*

Source: Author's construction

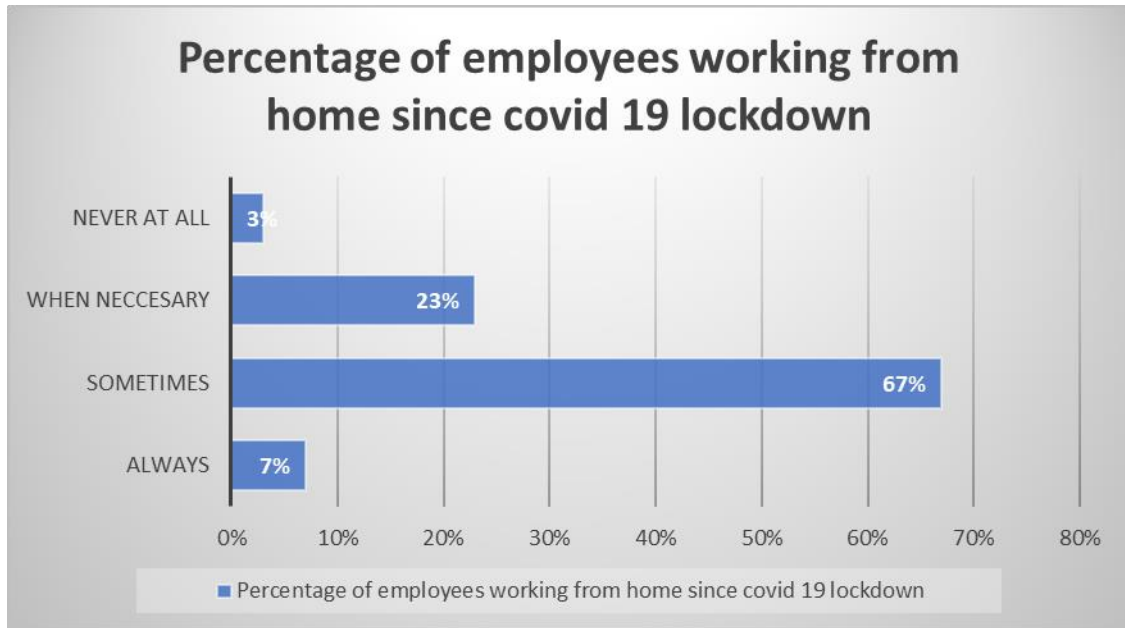
Response: The more the respondents have worked in this position, the more their responses will be effective as they will respond based on the changes they have noticed over the past years. Not only the restrictions from covid have changed the office environment, but technological advancements too. The above graph, figure 8.3, will illustrate the years the respondents worked as administrators.



*Figure 8.4: What are your tasks and duties in the organisation?*

Source: Author's own construction

According to the results from the respondents, 52% of the administrators perform pure administration duties. In addition, 27% of the respondents perform admin support duties, and 21% perform managing admin staff duties. As all organisations have different levels, there is also a flow of these levels in administrative staff. In addition, there are different authority levels accompanied by the responsibilities attached to them.



*Figure 8.5: Are you working at home since the Covid 19 lockdown?*

Source: Author's own construction

Response: the graph above shows that there was a 3% of never at all, 23% of, when necessary, the always was 7% then 67% was sometimes to the employees working from home since until to date.

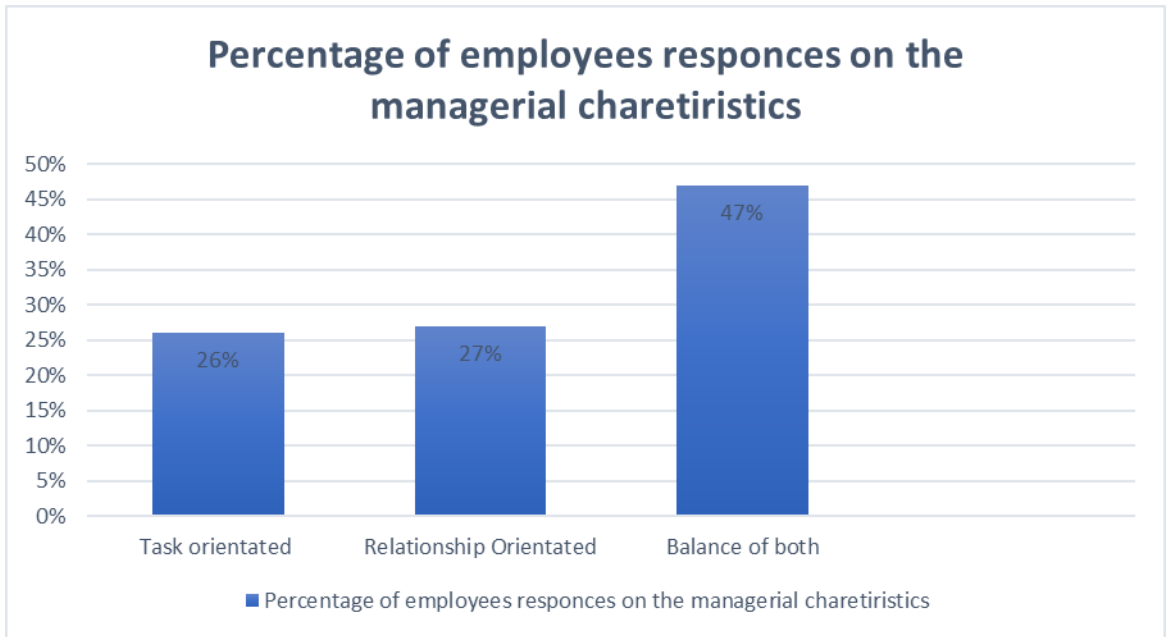
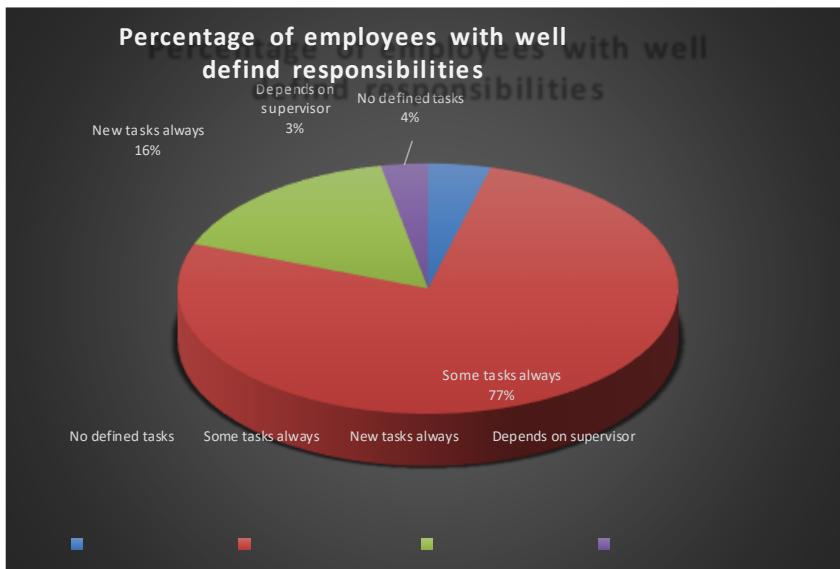


Figure 8.6: What are the characteristics of your manager?

Source: Author's own construction

Response: The study investigated the calibre of the respondents in terms of their work; the graph shows task orientation was 26%, relationship orientation was 27%, and 47% was balanced.

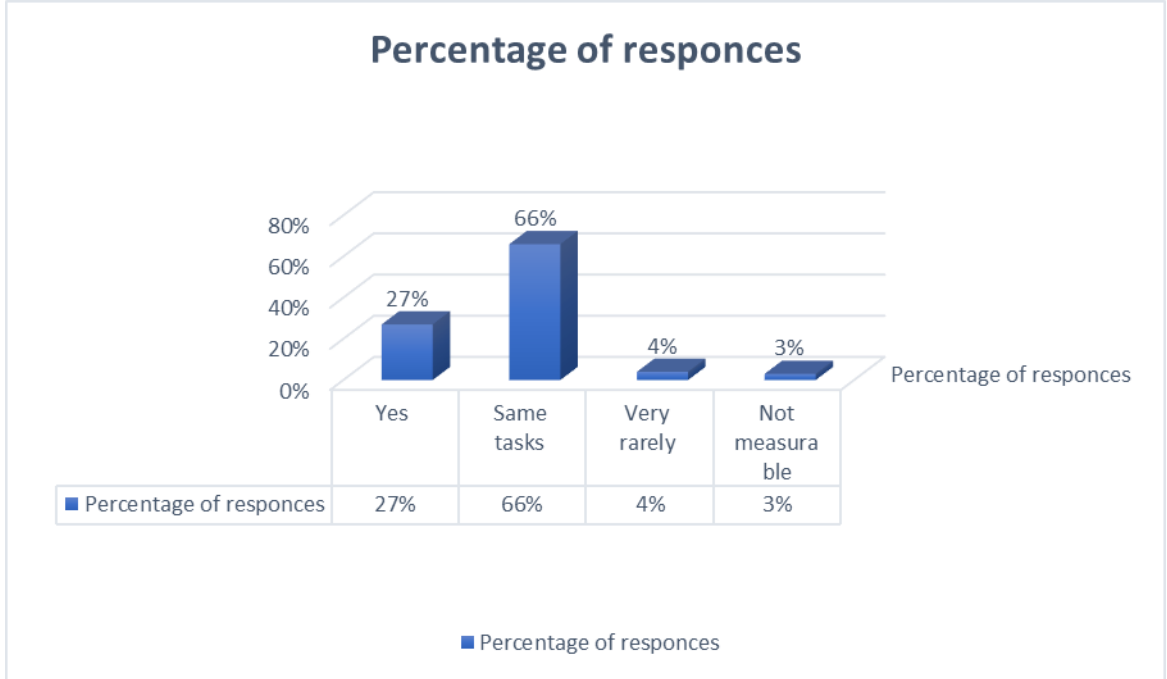


*Figure 8.7: Do you have clearly defined work responsibilities?*

Source: Author's own construction

Response: The graphs represent the information on whether were well-defined responsibilities; the results of new tasks were always 16%, depending on supervisor was 3%, no defined tasks were 4% and some tasks always 77%.

Figure 8.8: Is your work /tasks structured and measurable?



*Figure 8.8: Do you have clearly defined work responsibilities?*

Source: Author's own construction

Response: The number of people that responded to the positions they are in and their duties, whether it is measurable or not. The responses that came back were yes by 27%, same tasks by 66%, the very rare were 4% and not measurable was 3%.

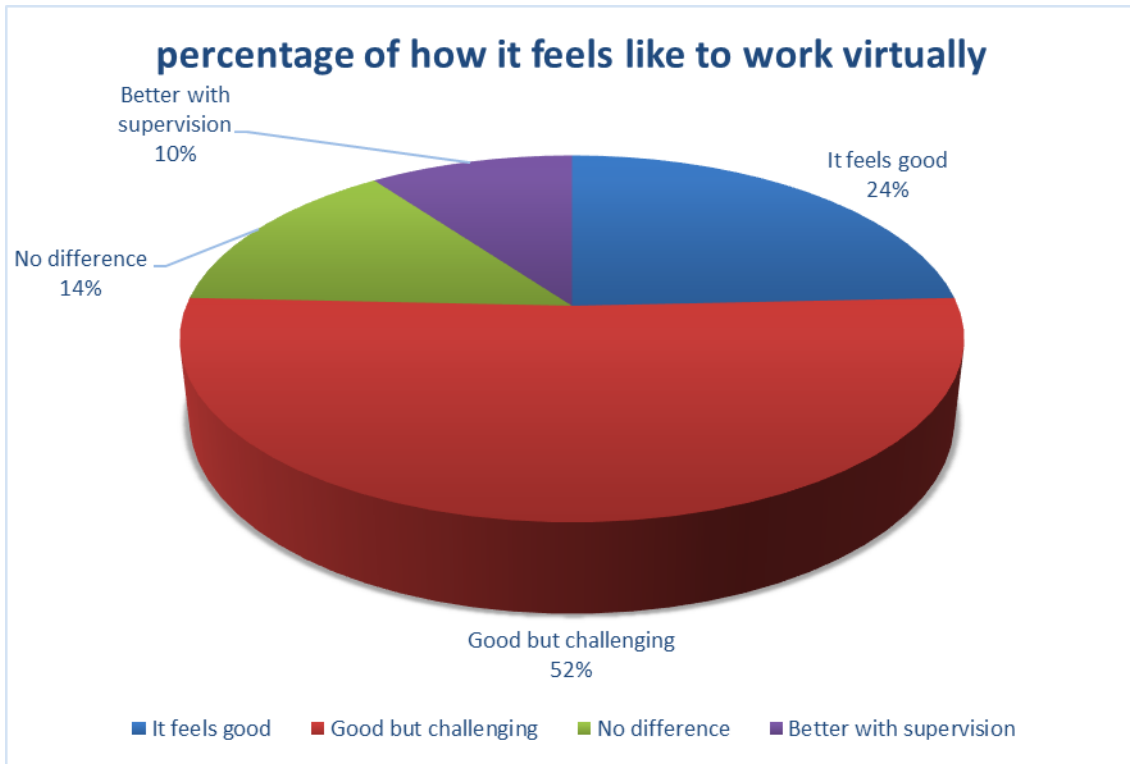


Figure 8.9: Does it feel like to work virtually without a manager breathing on you

Source: Author's own construction

Response: The pie chart represented a percentage that felt like working virtually. The results were as follows: 52% was good but challenging, it feels good was 24%, better with supervision was 10%, and 14% made no difference. Therefore, this virtual working is good, but it gives challenges.

Table : List here below anything that you may want to think is as important in these circumstances

Good/clear communication
Working flexible hours
Work and life balance
Clear and informative supervisors

Tasks must not be complicated
Teamwork
Work culture
Motivation
Guidance
Adaptability
Time management
Professionalism
Being organised
Self-discipline
Good work ethics

Source: Author's own construction

## **8.2.2 Section B Likert scale**

### ***8.2.2.1 Flexibility and agility***



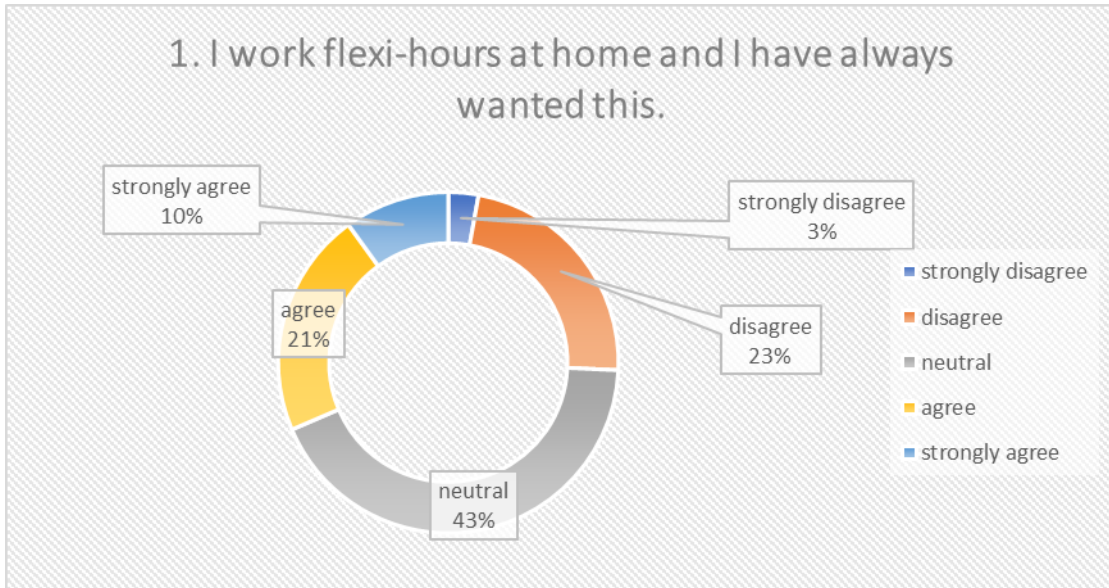


Figure 8.10: I work Flexi hours at home and have always wanted this

Source: Author's own construction

Response: The figure above shows 43% neutral to the flexi-hours at home that I always wanted, 3% strongly disagree, and 23% disagree, which makes 26% disagree. The chart showed 10% strongly agree and 21% agree; therefore, it showed 31% agreement. The chart proves that the majority were neutral on the flexi-hours they always wanted.

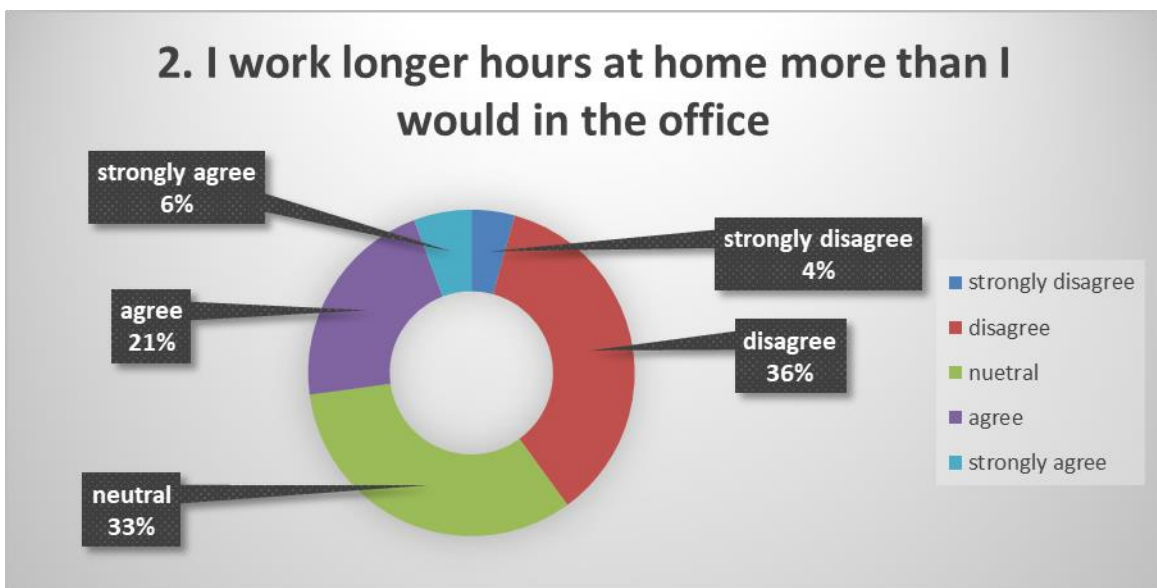


Figure 8.11: I work long hours at home more than I would in the office

Source: Author's own construction

Response: The figure presents a pie chart on the statement "I work long hours at home more than I would in the office" the results were split into 5 categories where 4% strongly disagree, and 36% disagree, which gave a total of 40% on the disagreement. The other side showed a total of 27% agreement which was 6% strongly agree and 21% agree, and there was 33% neutral to the statement. So, the results show they disagree that they work longer hours than they do in the office.

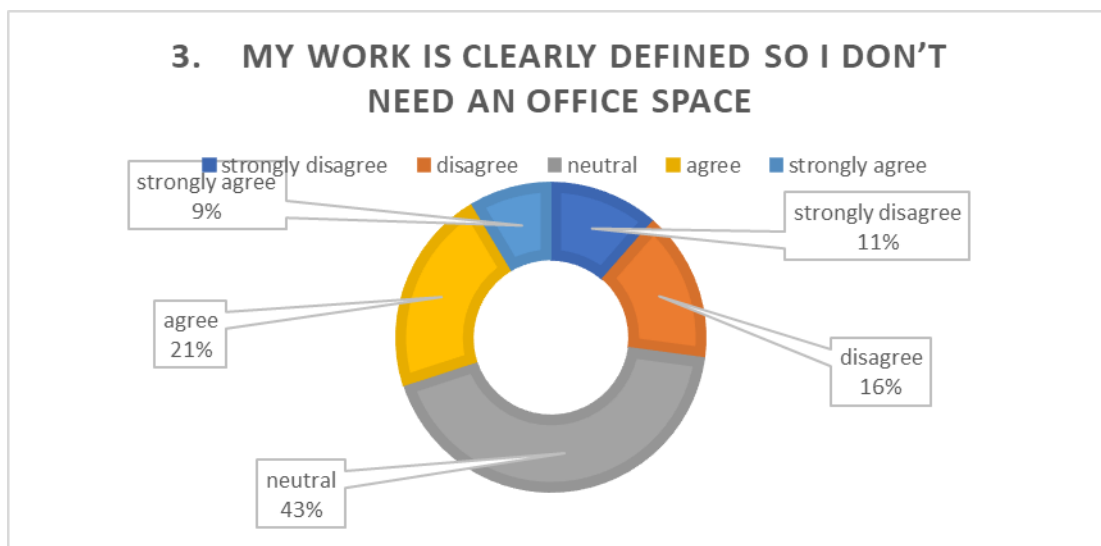


Figure 8.12: My work is clearly defined, so I do not need an office space

Source: Author's own construction

Response: The figure represents a statement that says my work is clearly defined, so I do not need an office space. The chart shows that 43% of neutral, 27% of disagreement, 11% strongly disagree, and 16% disagree. The other side shows 30% of agreement, with 21% of agree and 9% strongly agree. Therefore, the majority were neutral, according to the statement.

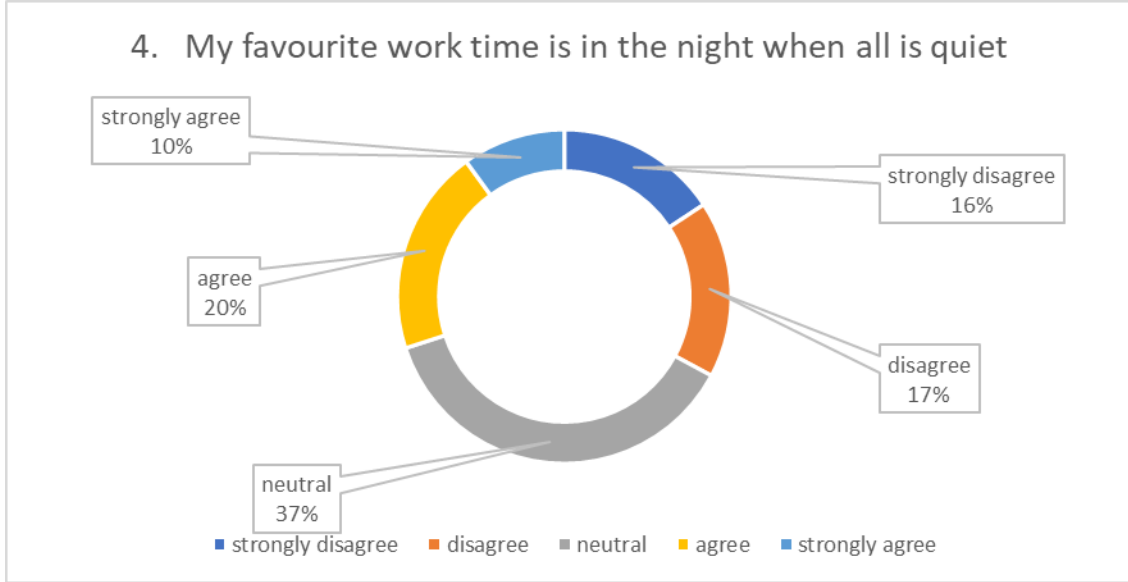


Figure 8.13: My favourite work time is at night when all is quiet

Source: Author's own construction

Response: The pie chart represents that there was 30% of agreement in a combination of 20% agree and 10% strongly agree. There was a neutral of 37% of the statement. The disagreement showed that 33% strongly agreed, with 16% and 17% disagreed.



Figure 8.14: I do not have much discipline to work without the manager's assistance

Source: Author's own construction

Response: The pie chart shows that there was 39% of neutral, 21% of disagree, 13% was agree, there was 16% strongly agree, and there was only 11% who strongly disagreed about the statement.

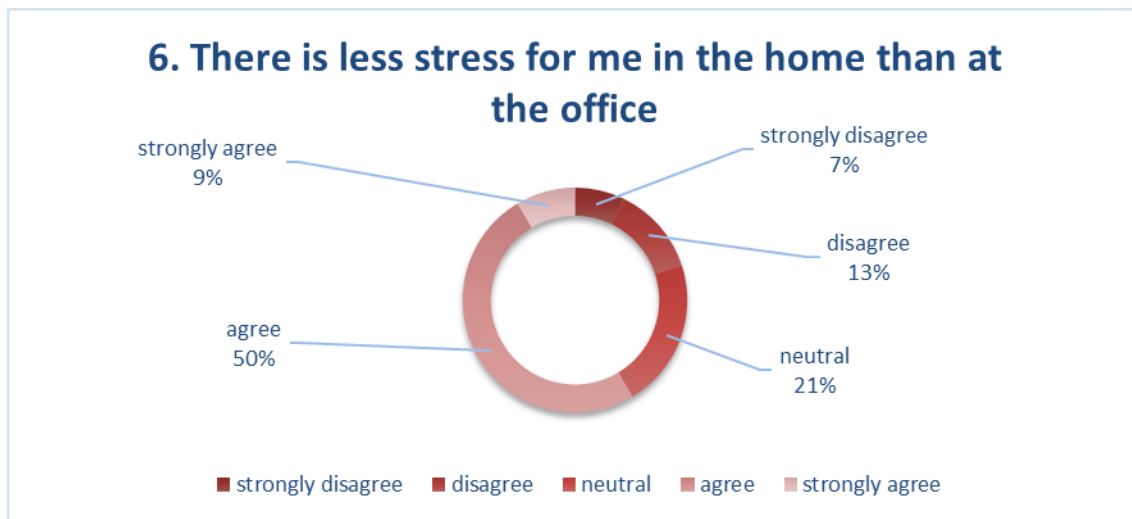
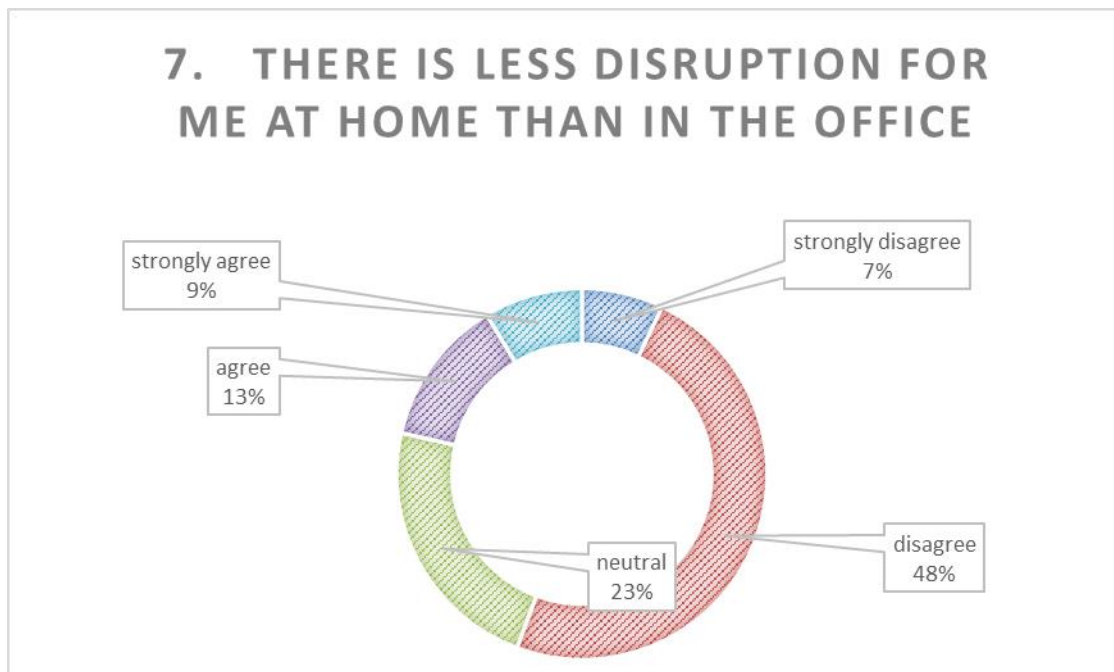


Figure 8.15: There is less stress for me at home than at the office

Source: Author's own construction

Response: The study provides the above information regards to the "There is less stress for me in the home than at the office" with the following: strongly disagree was 7%, disagree was 13% and in total was 20% that disagreed with the state that says there less stress for me at home than in the office. The neutral was 21% did not choose any side and strongly agreed, while 9% and 50% agreed. Therefore, the majority agreed that there is less stress as they are at home than in the office.

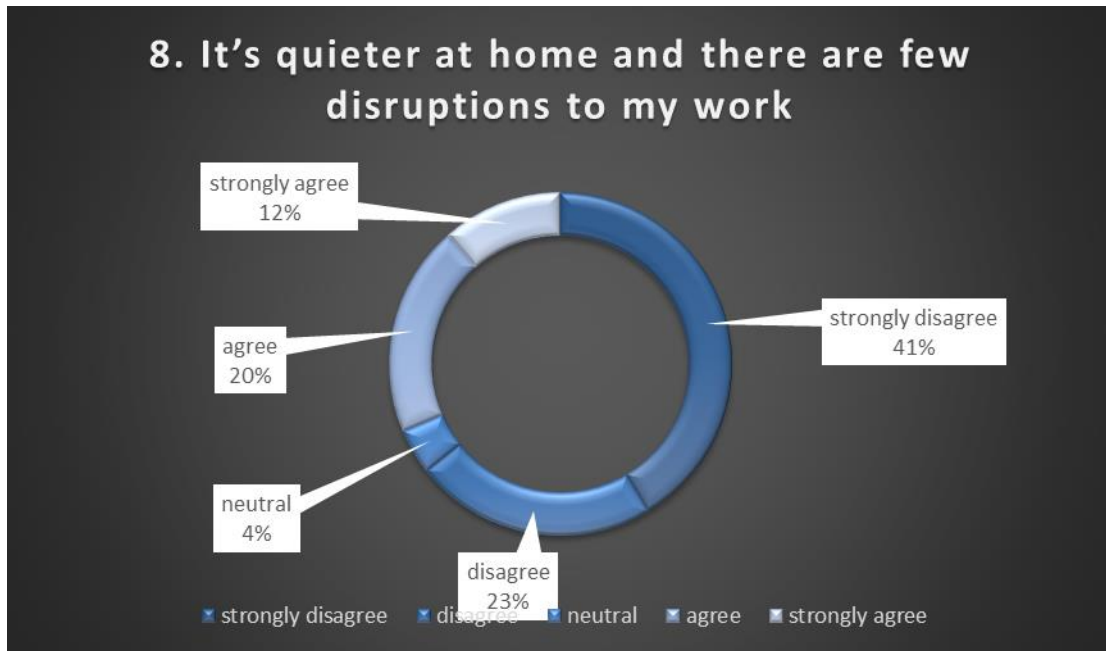
## 7. THERE IS LESS DISRUPTION FOR ME AT HOME THAN IN THE OFFICE



*Figure 8.16: There is less disruption for me at home than in the office*

Source: Author's own construction

Response: The pie chart represented the results of the statement that referred to the "There is less disruption for me at home than in the office" the neutral was 23% about this statement. The agreement was a 22% combination of strongly agree with 9% and 13% agree. So, the results show that 55% disagree with the statement, with 7% strongly disagreeing and 48% disagreeing, which then shows they disagree that there is less disruption at home than at work.



*Figure 8.17: It is quieter at home, and there are few disruptions to my work*

Source: Author's own construction

RESPONSE: The above figure presents a 4% neutral, strongly agree of 12%, and 20% agree with the statement. On the other, the disagree was 23% and strongly disagree with 41% to the statement. Therefore, the majority was on the disagreement that there is quieter at home than in an office.

### 9 THE OFFICE ENVIRONMENT GIVES THE IMPETUS / THE PUSH TO MY WORK

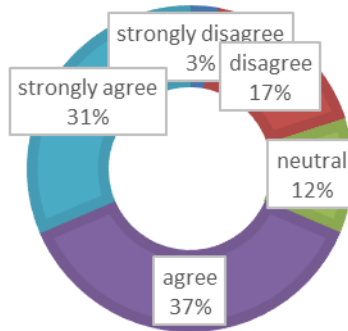


Figure 8.18: The office environment gives the impetus / the push to my work

Source: Author's own construction

Response: The figure shows a neutral of 12%, 3% strongly disagree, and 17% disagree, which shows that the office environment does not push them to work. The agree was 37%, and 31% strongly agree that the office environment motivates getting work done.

### Number of respondents

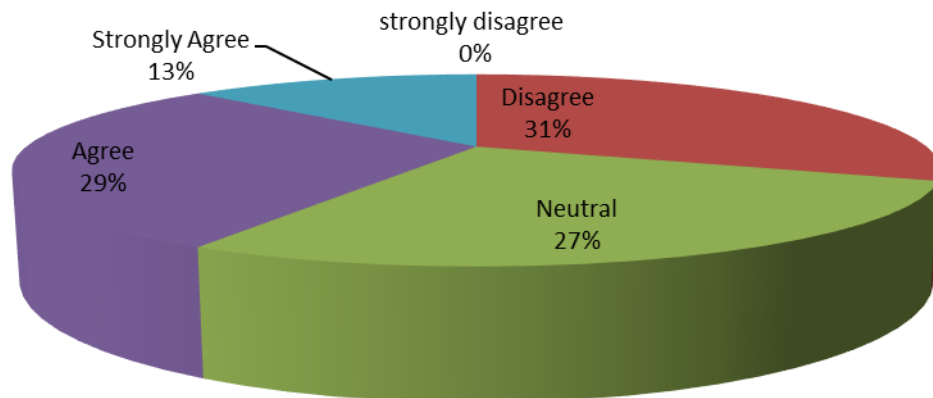


Figure 8.19: Talking to colleagues is part of my work and is not disruptive

Source: Author's own construction

Response: 27% of respondents were neutral regarding communicating with a colleague as part of their work, 0% strongly disagreed, while 13% strongly agreed that talking to colleagues is not disruptive. Those that disagreed were 31% and 29% that agreed. The results show that talking to colleagues is not disruptive and part of their jobs.

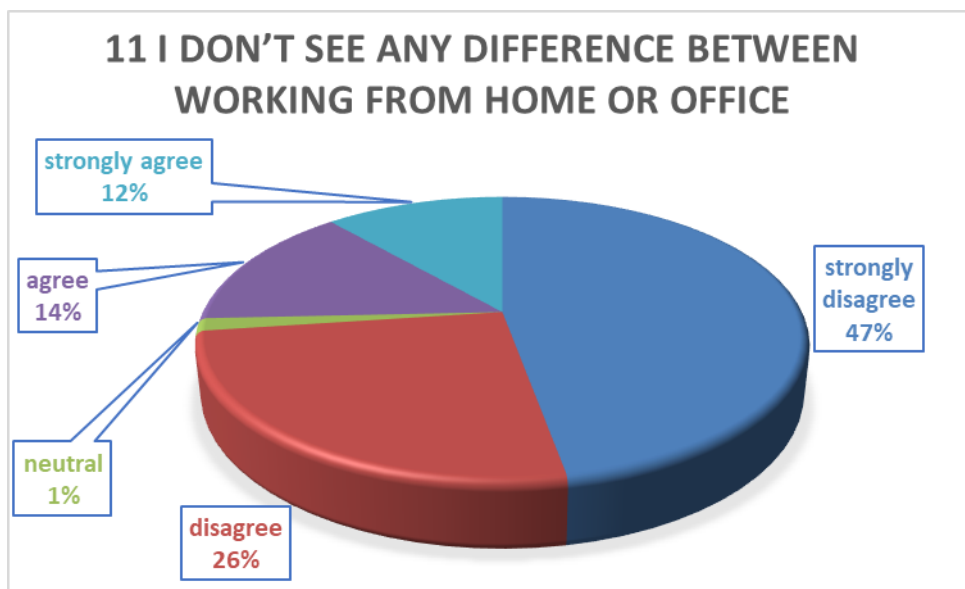


Figure 8.20: I do not see any difference between working from home or office

Source: Author's own construction

Response: The above figure shows that the strongly disagree 47% and strongly agree 12%. The disagree was 26%, agree 14%, and neutral was only 1%. Therefore, 73% showed disagreement with the statement.



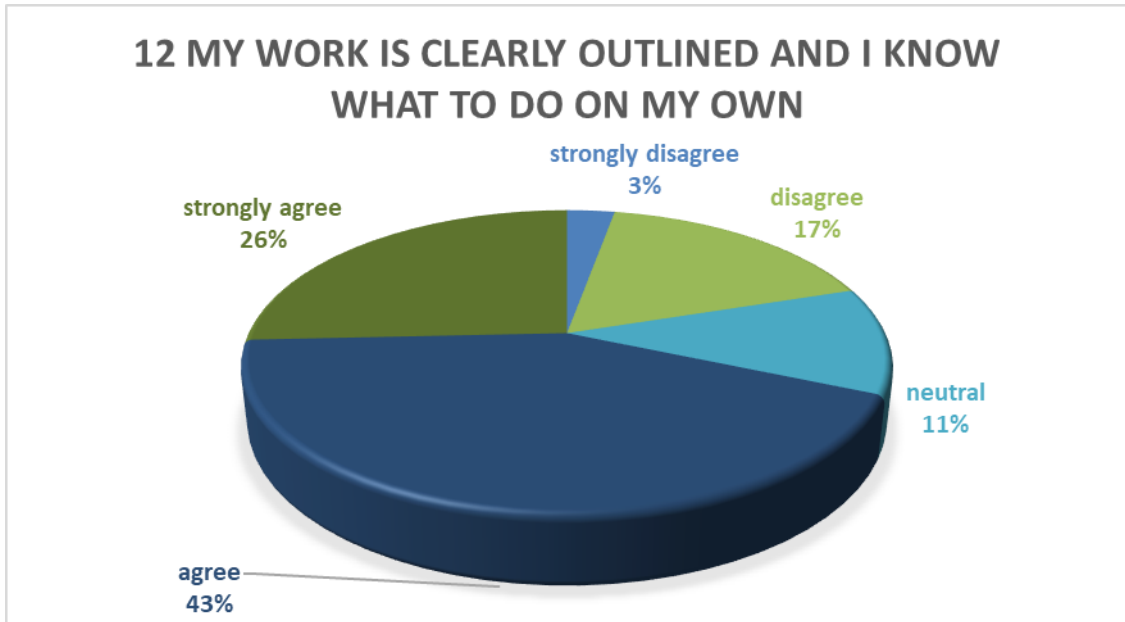


Figure 8.21: My work is clearly outlined, and I know what to do on my own

Source: Author's own construction

Response: The graph presents 26% strongly agree, 43% agree, and 11% are neutral. On the other side, 3% strongly disagree, and 17% disagree. Therefore, most respondents state they know how to do the job independently.

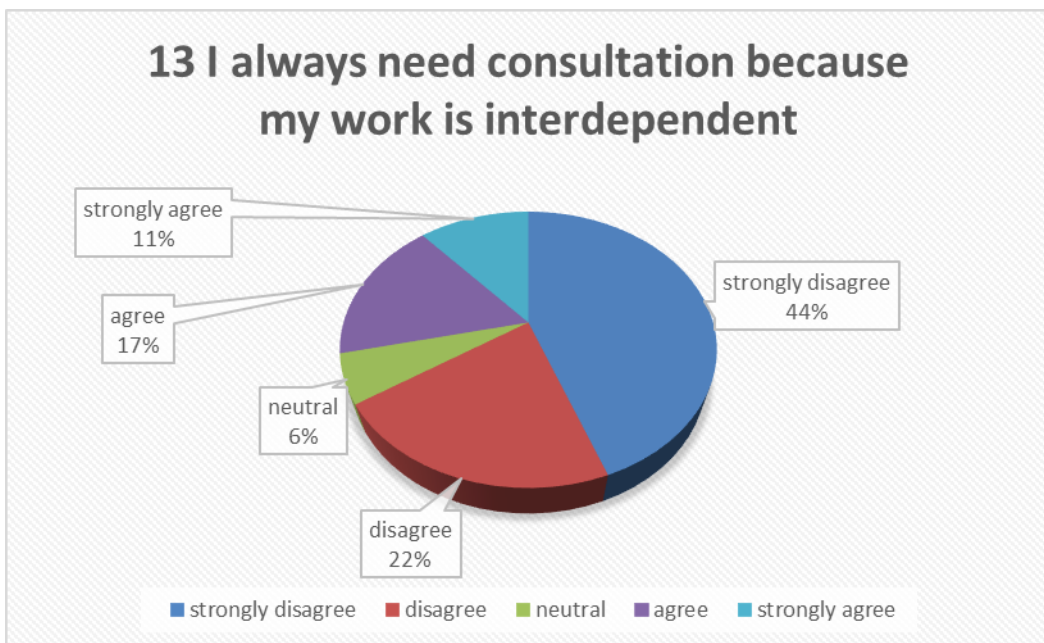


Figure 8.22: I always need consultation because my work is interdependent

Source: Author's own construction

Response: The figure shows a strongly agree of 11% and 17% agree, and 28% agree with "I always consult because of my job description". The disagreement was 66% in total, and a combination of 4% strongly disagree, and 22% disagree that each time they must consult because their work is interdependent. The neutral was only 6%.

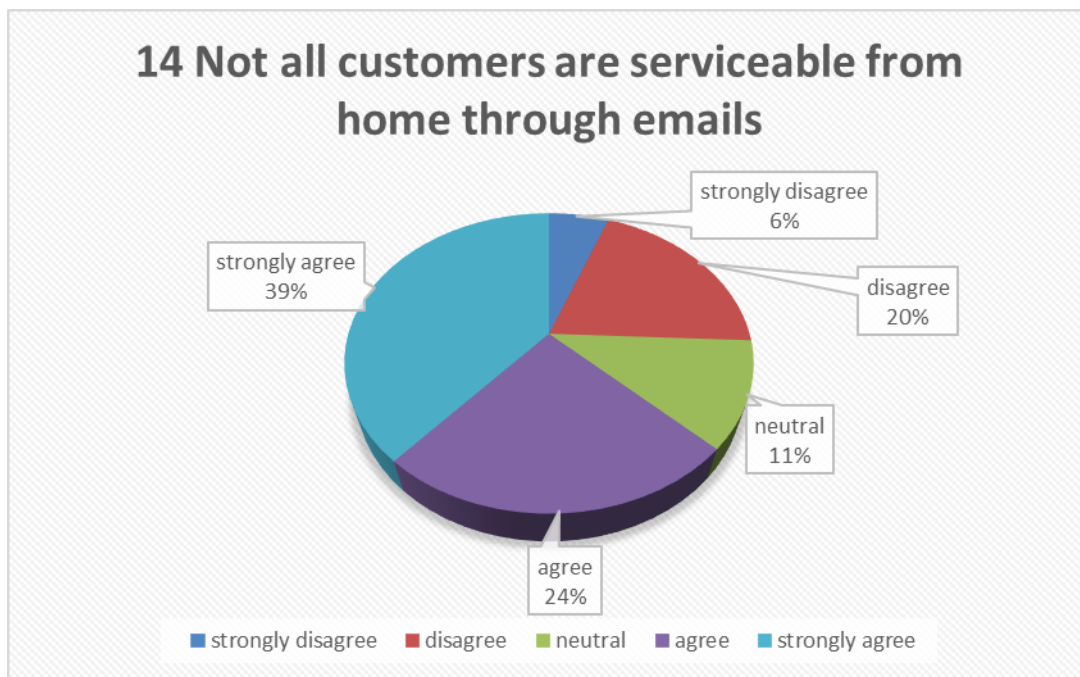


Figure 8.23: Not all customers are serviceable from home through emails

Source: Author's own construction

Response: The figure 7.23 chart presents that as follows: 6% strongly agree and 20% disagree in total, 26% disagree that not all customers are not serviceable through emails which they believe that all customers are serviceable through. The neutral was 11% to the statement. Therefore, the combination of agreement was 63% consisting of agree was 24% and 39% strongly agree that not all customers are not serviceable through emails.

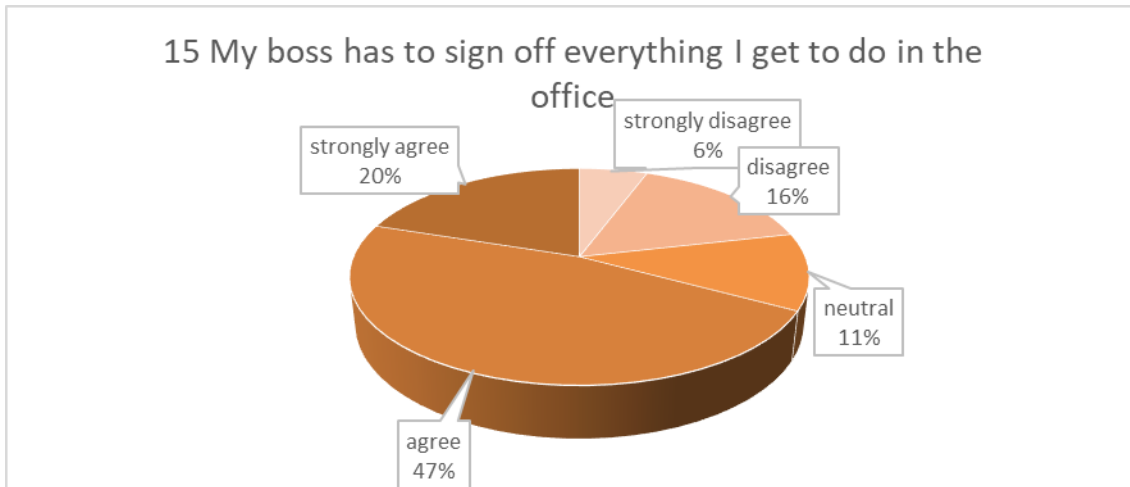
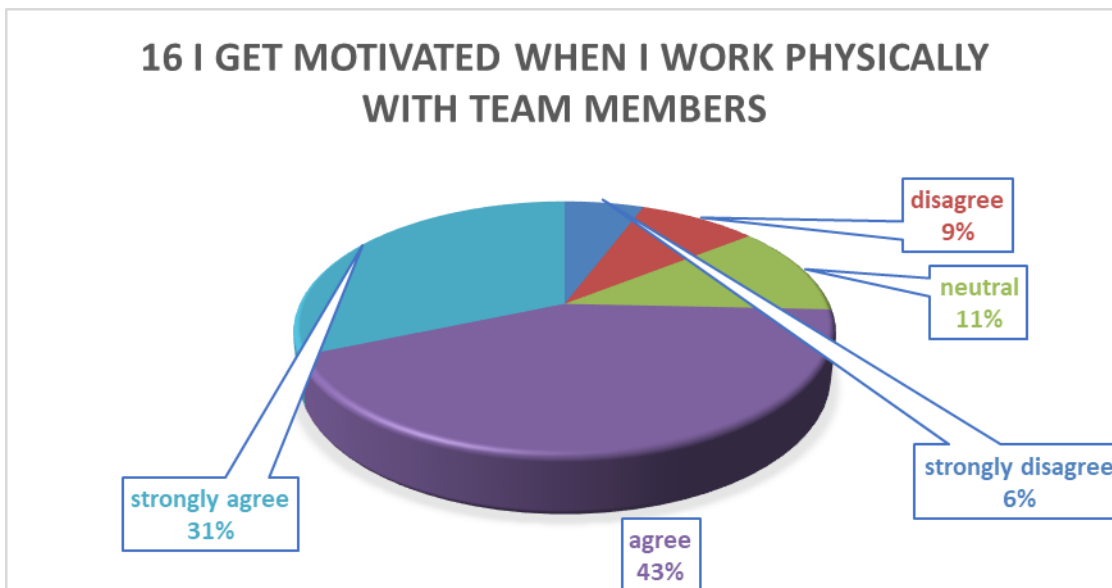


Figure 8.24: My boss has to sign off everything I get to do in the office

Source: Author's own construction

Response: The pie chart presents a figure above 7.24 that shows 11% of neutral to that boss signing off everything I do, the 16% of disagreeing to the sign off of everything by the boss, the strongly disagree 6% to boss having to sign off everything I do at the office. The agree was 47%, and 20% strongly agree with the statement. Therefore, the agreement was the majority.

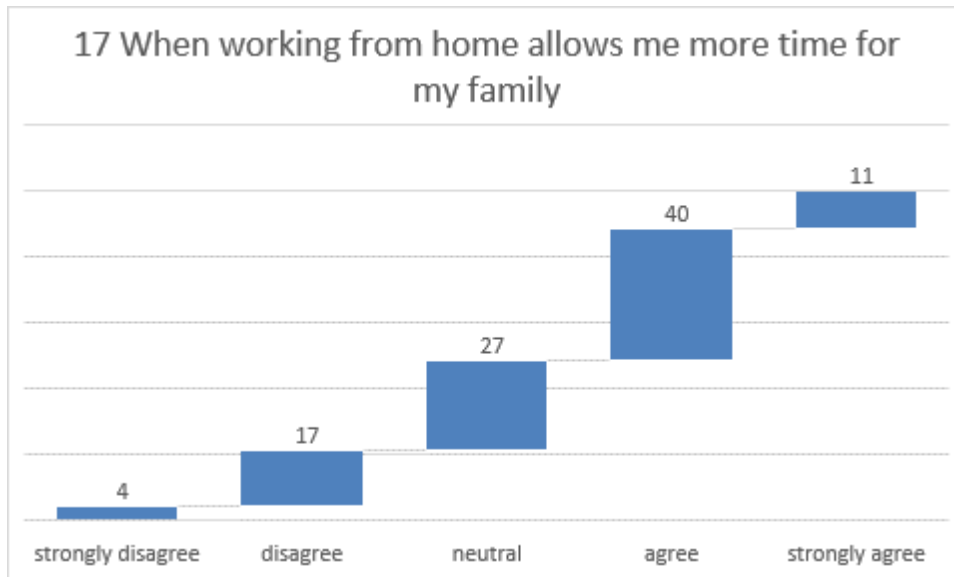


*Figure 8.25: I get motivated when I work physically with team members*

Source: Author's own construction

Response: the figure above shows results on the "I get motivated when I work physically with team members; the results show as follows 9% disagree, 11% are neutral, 6% strongly disagree, 43% agree, and 31% strongly agree. The majority showed to agree that getting motivated working physically with the team.

### 8.2.2.2 WORK / PERSONAL LIFE BALANCE



*Figure 8.26: When working from home allows me more time for my family*

Source: Author's own construction

Response: The study shows that there was 4% strongly disagree, 17% was for disagree, 27% neutral, the agree side was 40%, and 11% strongly agree. The results show majority agree with the statement.

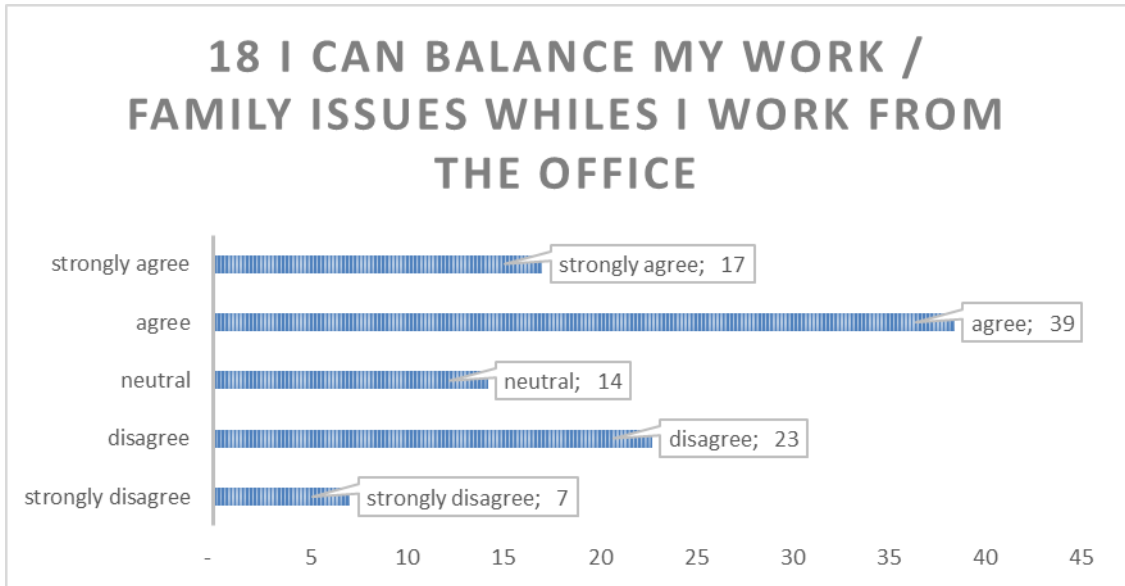


Figure 8.27: I can balance my work/family issues while I work from the office

Source: Author's own construction

Response: the figure above shows 17% of strongly agree, 39% of agree, those who were neutral were presented as 14%, and a total of 30% were on the disagreement side with a combination of 23% disagree and 7% strongly disagree. Therefore 56% agreed that they could balance life at the office.

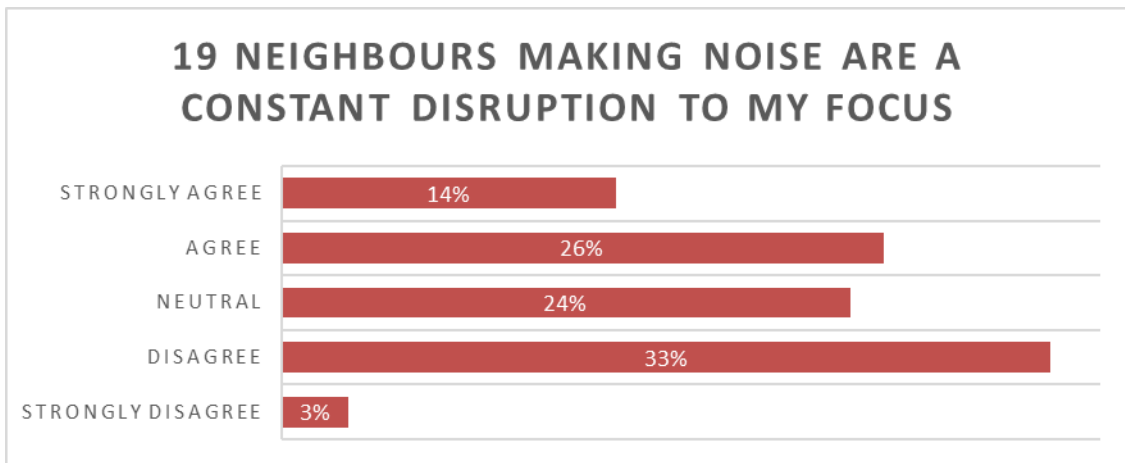


Figure 8.28: Neighbours making noise are a constant disruption to my focus

Source: Author's own construction

Response: The following bar chart above shows the following information 14% strongly agree and 26% agree with the statement, then 33% disagree and 3% strongly disagree, and 24% are neutral. Therefore, those that agreed had an edge of 4% over those who disagreed.

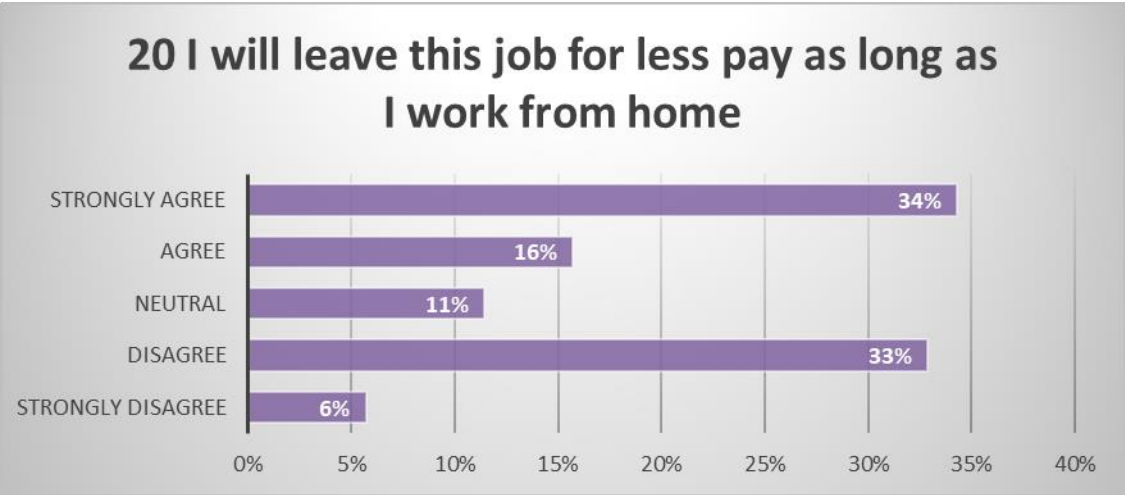
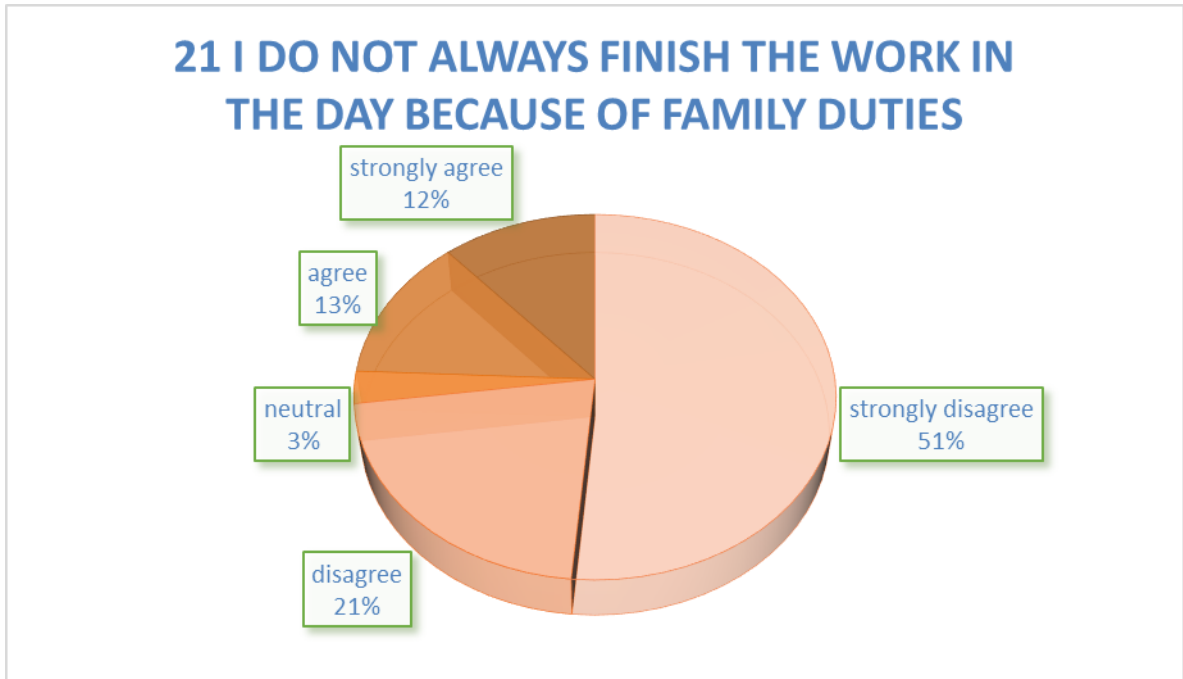


Figure 8.29: I will leave this job for less pay as long as I work from home

Source: Author's own construction

Response: The figure shows a percentage of 11% being neutral to the statement, 39% strongly disagree (6%) and disagree (33%). The agree was 50% which was the majority ruling in the statement.



*Figure 8.30: I do not always finish the work in the day because of family duties*

Source: Author's own construction

Response: The pie chart presented above shows the results on the statement "I do not always finish the work in the day because of family duties", with a neutral of 3%, the agree of 13% and strongly agree of 12% with a total of 25%. The disagree was 21% and strongly disagree 51%, with a total of 72% disagreeing with the statement.



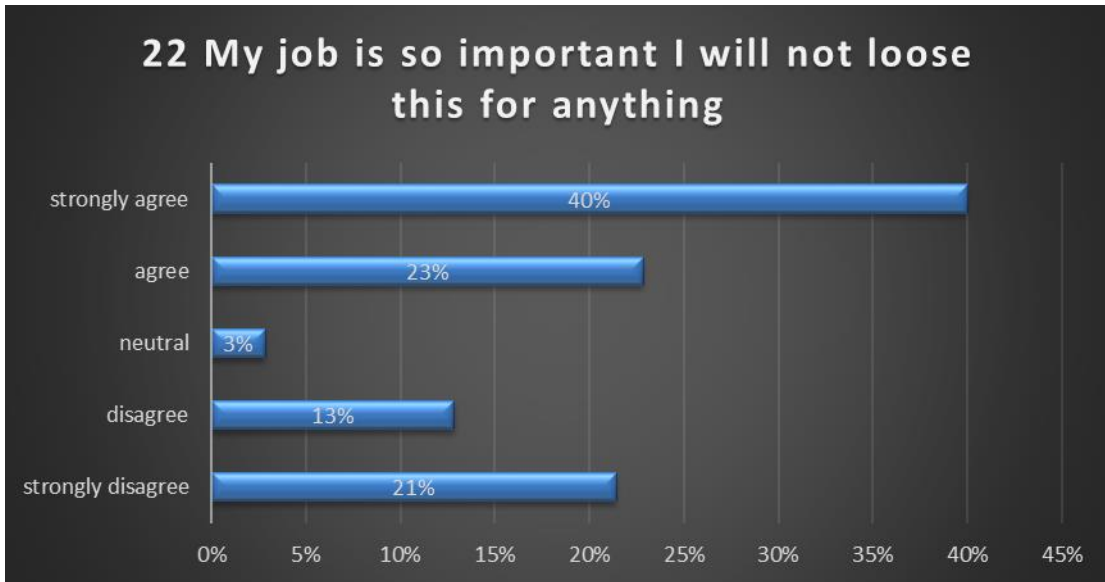


Figure 8.31: My job is so important that I will not lose this for anything

Source: Author's own construction

Response: The figure above shows a bar graph of responses to strongly agree 40%, agree 23%, neutral 3%, disagree 13% and strongly disagree 21%. Therefore, the combination of strongly agree and agree with 63% shows that they agree with the statement "my job is so important I will not lose this for anything."

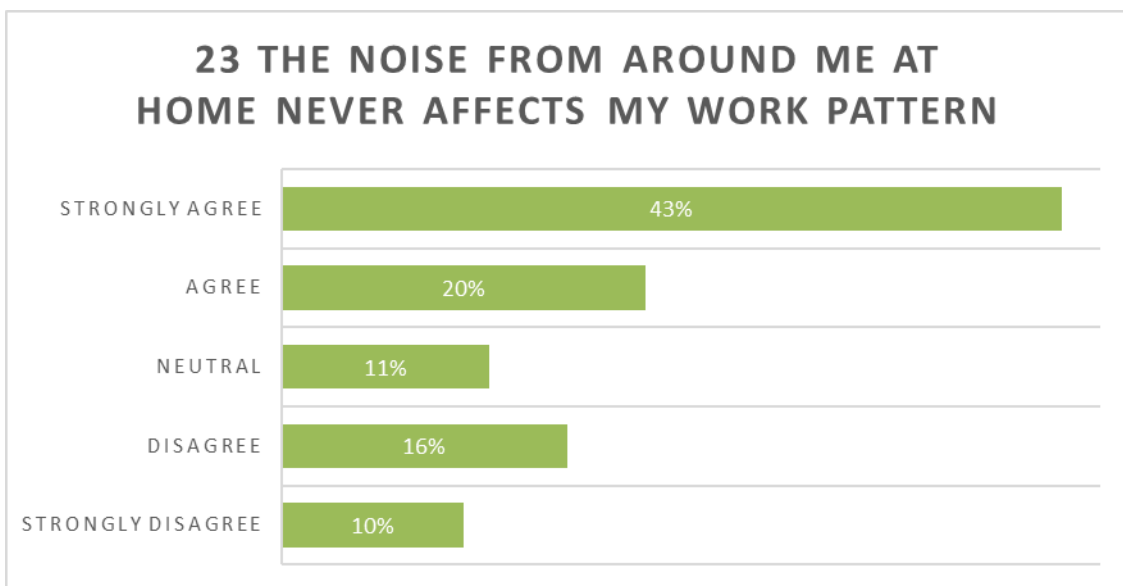


Figure 8.32: The noise from around me at home never affects my work pattern

Source: Author's own construction

Response: The bar graph shows 43% strongly agree and agree of 20%. The disagree was 16% and strongly disagree 10%, with a total of 26%. The neutral was 11%.

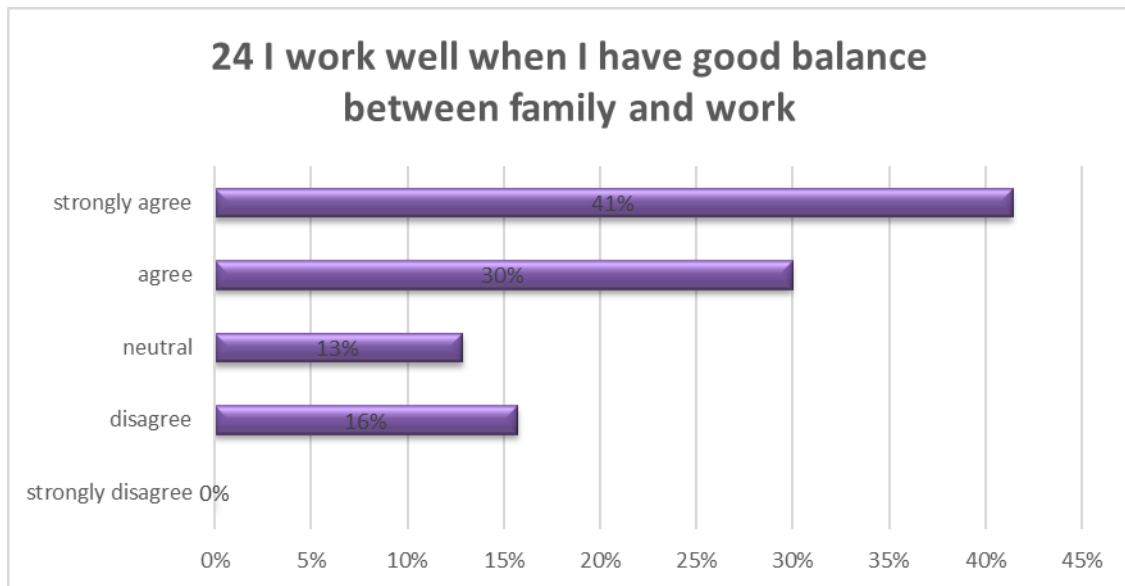


Figure 8.33: I work well when I have a good balance between family and work

Source: Author's own construction

Response: The disagree was 16%, and strongly disagree was 0%; the total was 16% disagreeing with the statement. The neutral was 13%. The agree was 30%, and 41% strongly agreed, with a total of 71% that said, "I work well when I have a good balance between family and work."

### 8.2.2.3 Technology makes it easier

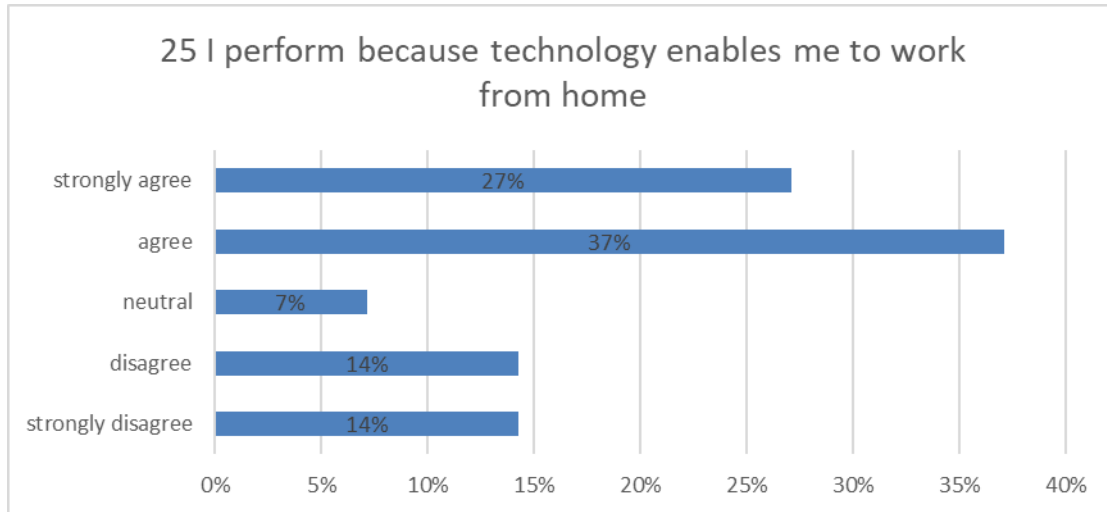


Figure 8.34: I perform because technology enables me to work from home

Source: Author's own construction

Response: The bar graph shows a neutral of 7%, disagree and strongly disagree 14% each with a total of 28%, 64% total of agreeing in 37% and 27% was strongly agree therefore has the majority of they perform because the technology makes me do my work from home.

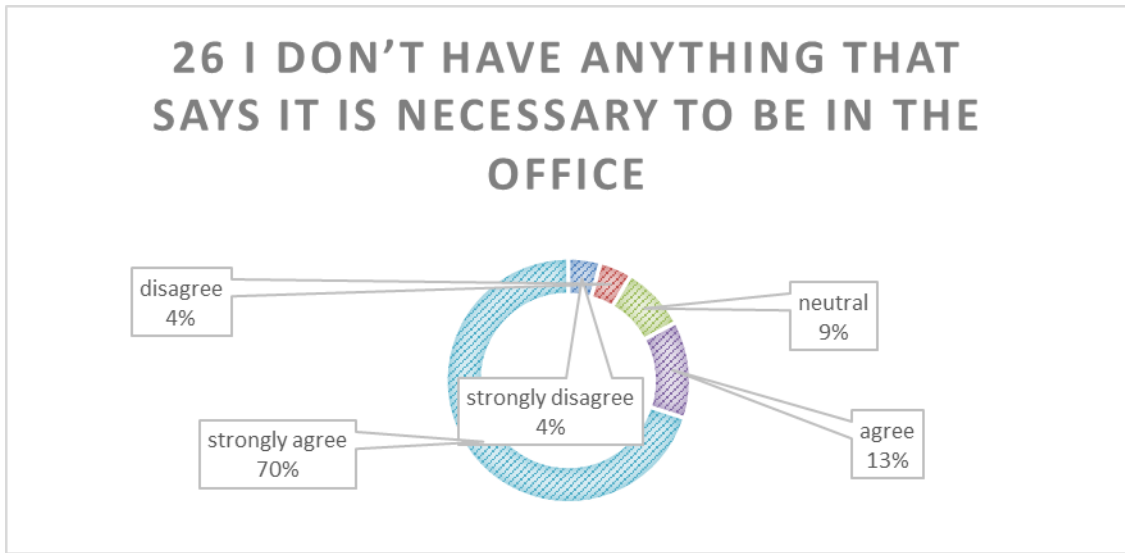


Figure 8.35: I do not have anything that says it is necessary to be in the office

Source: Author's own construction

Response: The pie chart shows a disagree and strongly disagree of 4% each, a total of 8%, neutral 9%. The agree was 13%, and strongly agree was 70%; the total of 83% agree say, "I do not have anything that says it is necessary to be in the office."

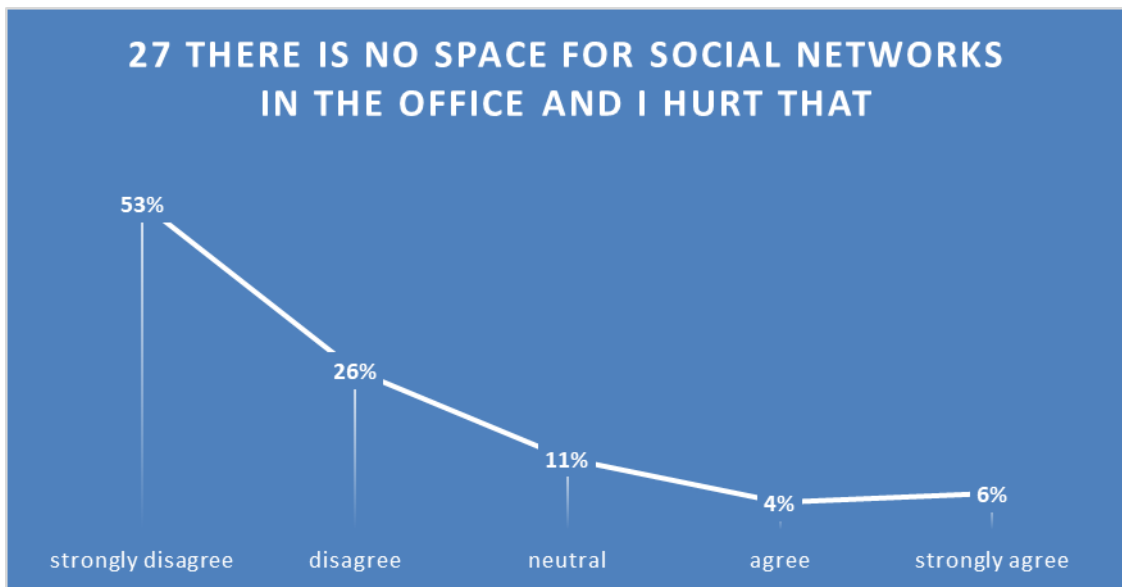


Figure 8.36: There is no space for social networks in the office, and I hurt that

Source: Author's own construction

Response: The line graph shows results of 53% strongly disagree, 26% disagree with a neutral of 11%, on the other hand, the agree was 4% and 6% strongly agree. The line graph shows that there is a disagreement where it says there is no time for social media; there is a higher of disagree.

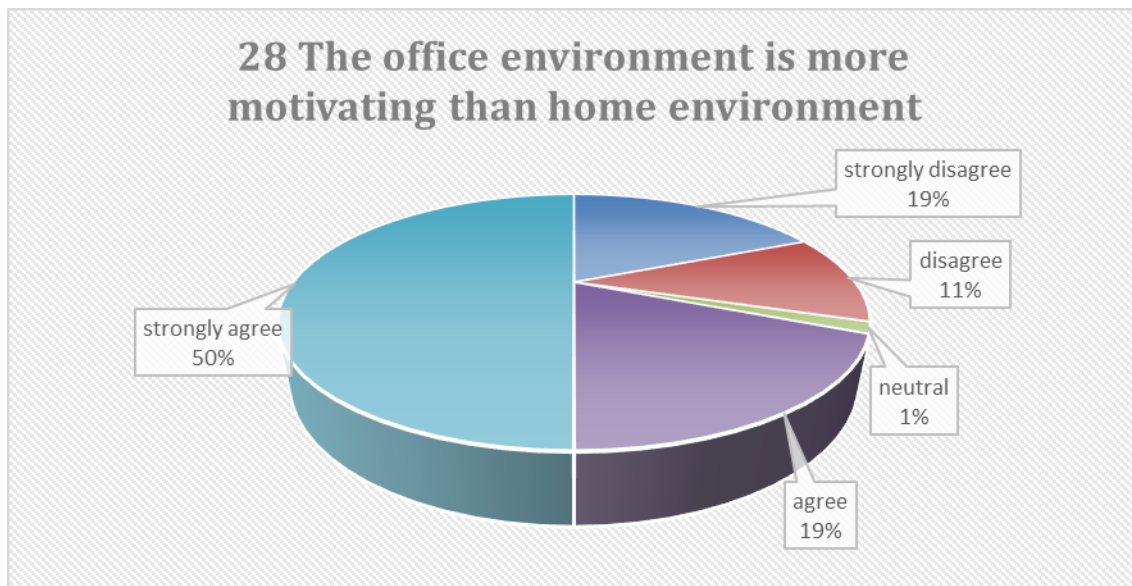


Figure 8.37: The office environment is more motivating than the home environment

Source: Author's own construction

Response: The neutral was 1%, 11% was disagree with the agree and strongly disagree sharing the 19% and 59% was strongly agree. The office environment is more motivating than the home environment was agreed more by respondents 69%.

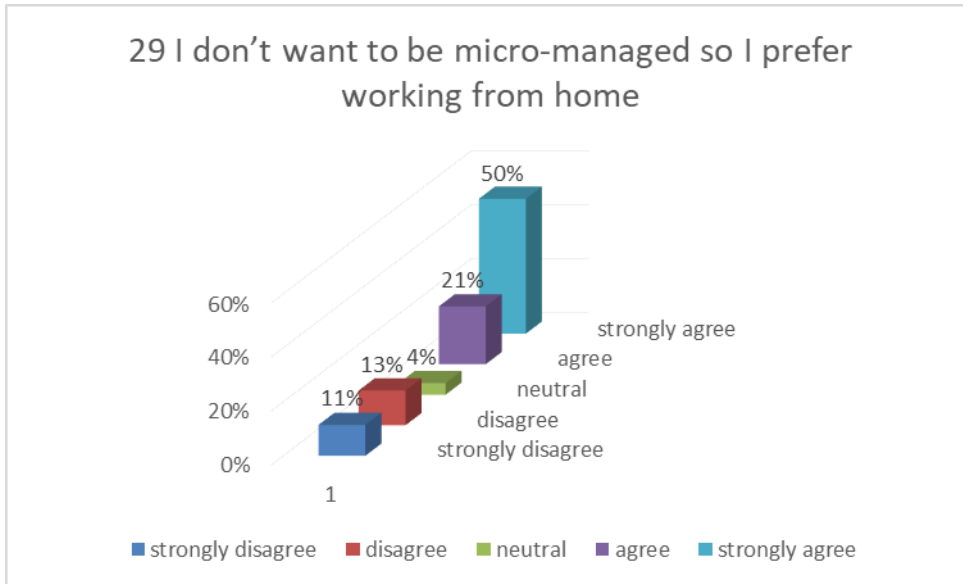


Figure 8.38: I do not want to be micro-managed, so I prefer working from home

Source: Author's own construction

Response: The bar graphs presented a statement that said I do not want to be micro-managed, so I prefer working from home; the neutral was 4%, the strongly disagree was 11% and disagree was 13%, on the other hand, agree was 21%, and 50% strongly agreed, therefore, the respondents totally agree by 71% they do not want to be micro-managed, so they prefer working from home.

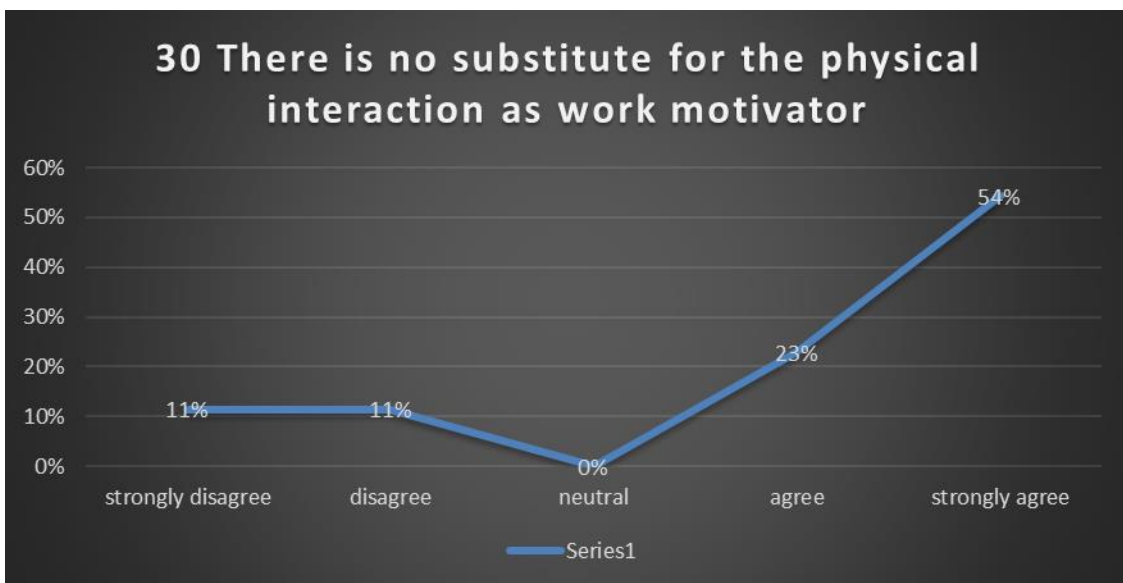


Figure 8.39: There is no substitute for physical interaction as a work motivator

Source: Author's own construction

Response: The line graph presents 11% strongly disagree and disagree in each with a total of 22% to the statement which they believe there is a substitution to physical interaction. Agree and strongly agree combined give a 78% with a agree of 24% and 54% strongly agree that there is no substitution of physical interaction.

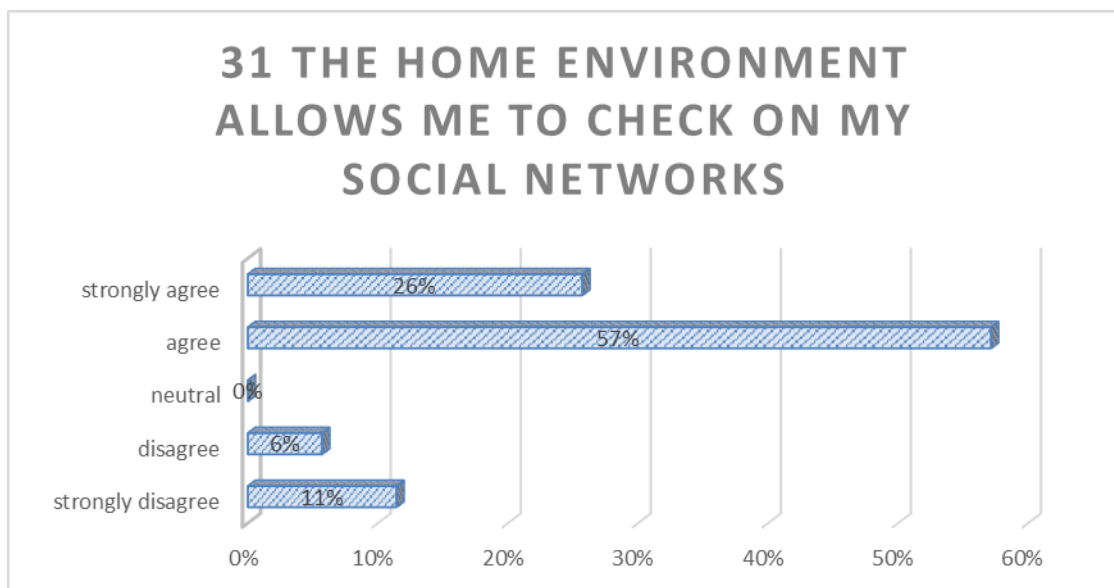


Figure 8.40: The home environment allows me to check on my social networks

Source: Author's own construction

Response: The above agree that working from home gives them more powers to be on social networks agree and strongly agree was 83% were on greenlight to be on social networks, 0% were neutral, and only 17% disagree and strongly disagree that working from home allows them to look on their phones more.

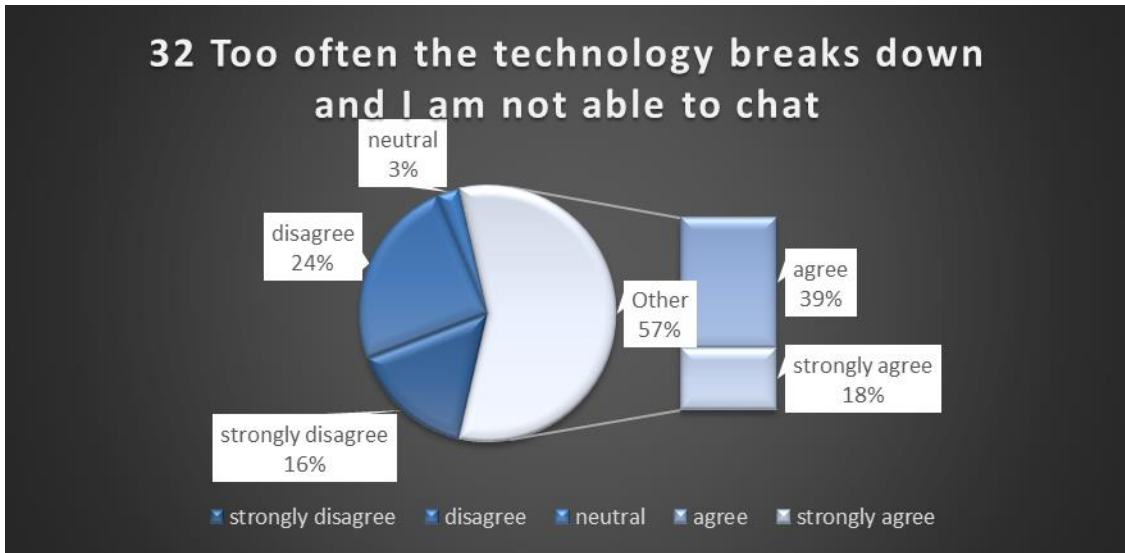


Figure 8.41: Too often, the technology breaks down, and I am not able to chat

Source: Author's own construction

Response: The pie charts presented a 3% neutral, 40% of the combination on disagree, 24% and 16% strongly disagree. The rest was other, with 57% of agree, 39%, and 18% strongly agree with the statement.

#### 8.2.2.4 The realities of my life

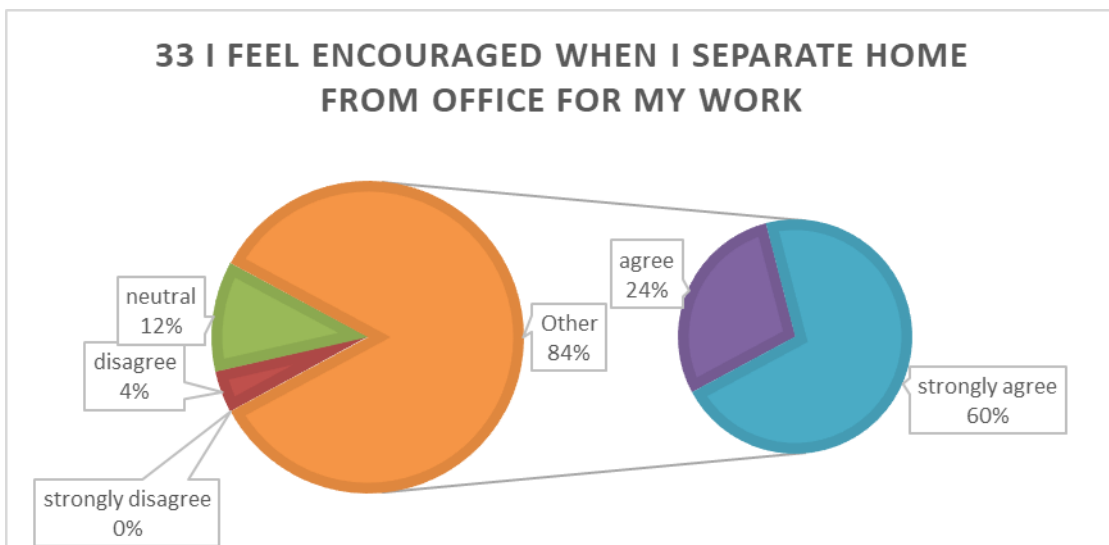


Figure 8.42: I feel encouraged when I separate home from the office for my work

Source: Author's own construction



Response: The pie chart shows other of 84%, which formed from 24% agree and 60% strongly agree to the "I feel encouraged when I separate my work to home issues then only 4% disagree and strongly disagree was 0% and a neutral of 12% to the statement.

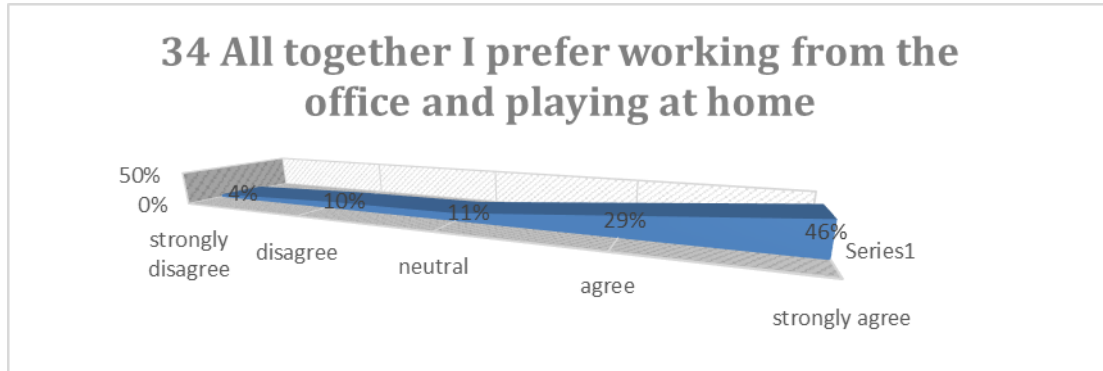


Figure 8.43: Altogether, I prefer working from the office and playing at home

Source: Author's own construction

Response: The figure above presented a 4% strongly disagree and 10% combined with 14% to the statement. There were only 11% who were neutral. The agree was 29%, and 46% was firm. Therefore, the statement was agreed by 85% of respondents.

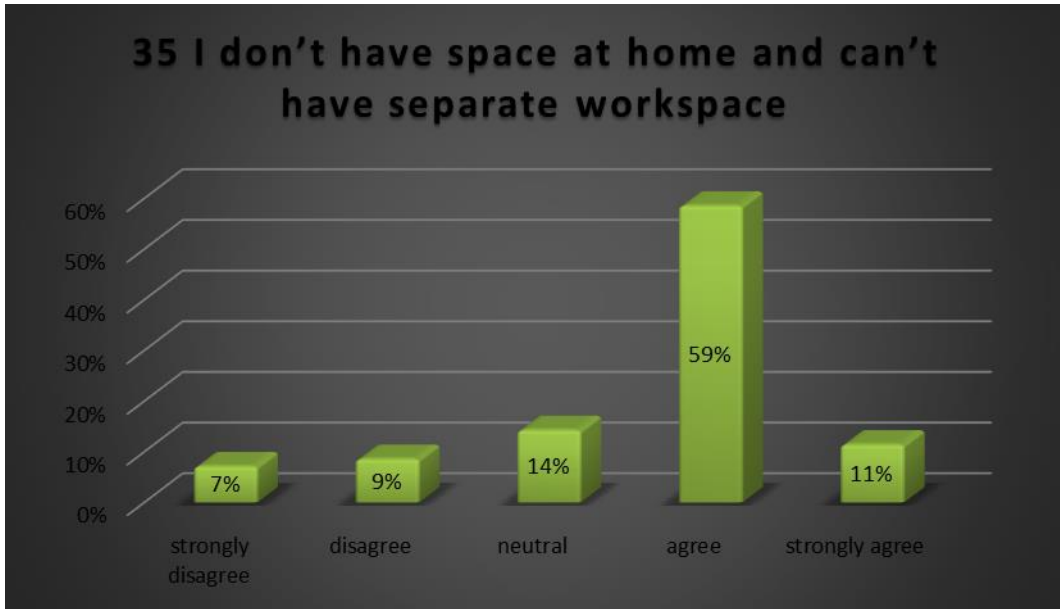


Figure 8.44: I do not have space at home and cannot have a separate workspace

Source: Author's own construction

Response: The bar graph shows 7% strongly disagree, 9% disagree, 11% strongly agree, 14% neutral, and 59% agree. Therefore, 16% disagreed with the statement, and 70% agreed.

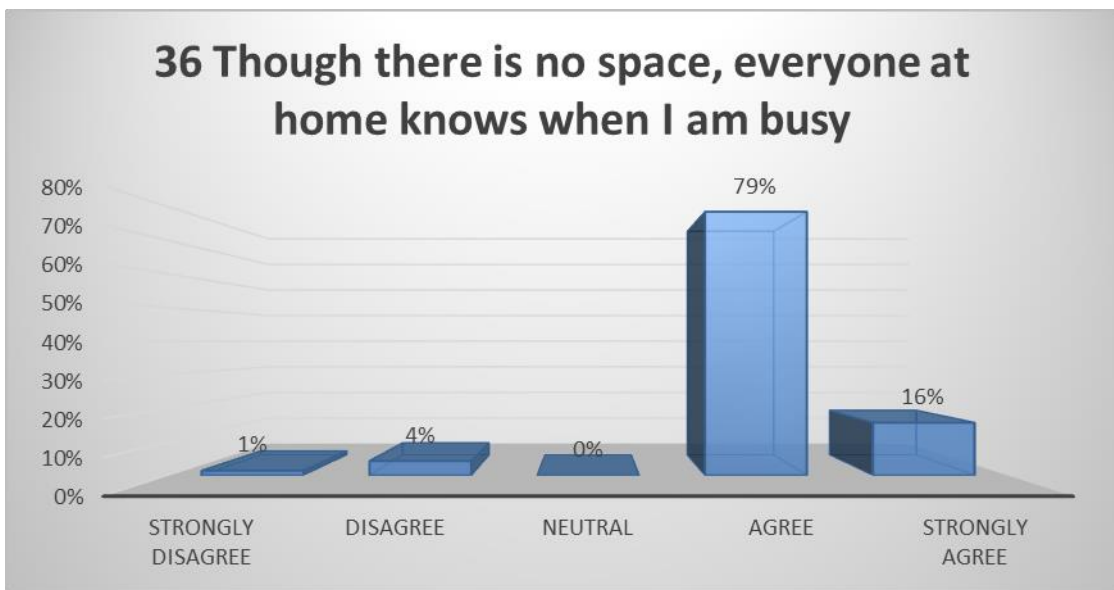


Figure 8.45: *Though there is no space, everyone at home knows when I am busy*

Source: Author's own construction

Response: there were no respondents that were neutral=0%, there were 5% that were strongly disagree=1% and disagree=4% and 95% strongly agree and agree with the statement.

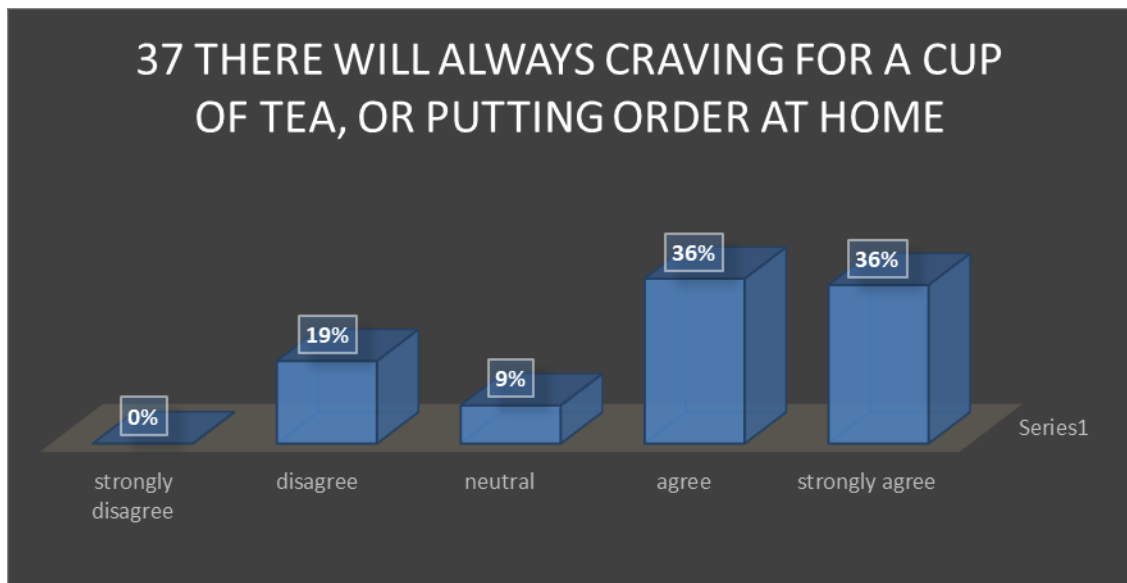


Figure 8.46: *There will always be a craving for a cup of tea or putting order at home*

Source: Author's own construction

Response: The bar graph shows 9% neutral to the statement then, 19% disagree, and 0% strongly disagree that they do not crave tea when they are at home. Then 72% agree they always crave tea when working from home.

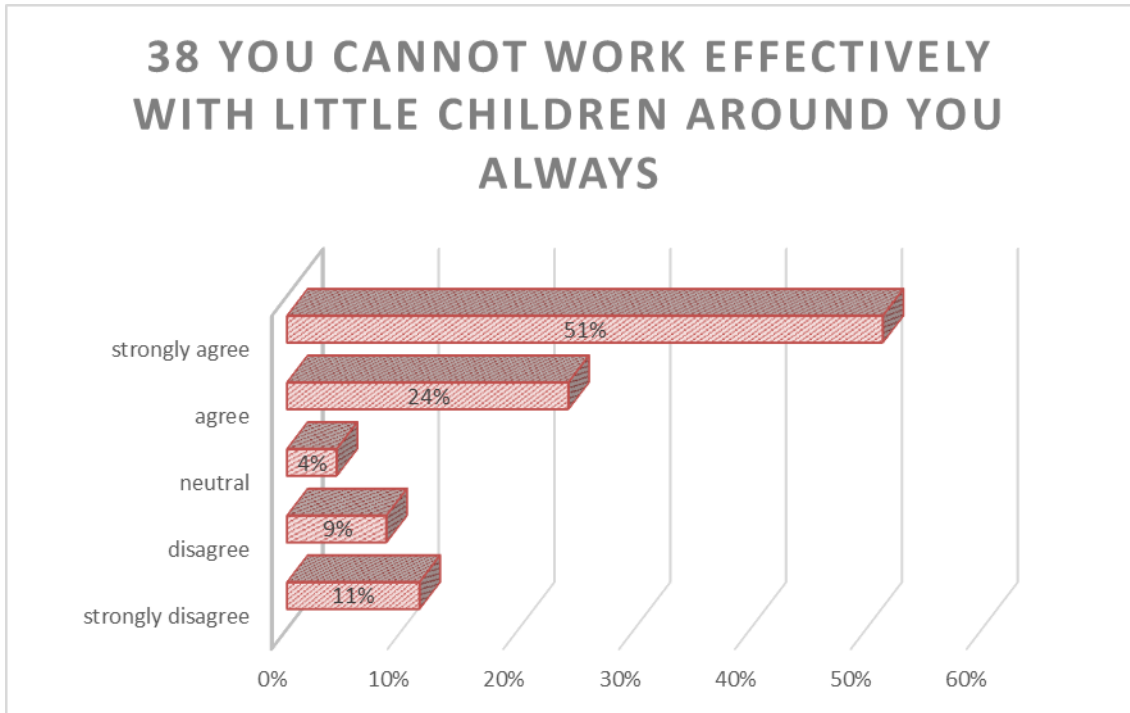


Figure 8.47: You cannot work effectively with little children around you always

Source: Author's own construction

Response: The figure above reveals the statement above; the results state that strongly agree was 54% and 24% agree; the one in the middle, which was neutral, was 4%. On the other hand, 9% disagreed, and 11% strongly disagreed. So 75% agreed with the statement, and 20% disagreed.



Figure 8.48: In the office; my mind shuts out everything except focus on work

Source: Author's own construction

Response: The line graph shows 0% strongly disagree and disagree with 7% and 11% neutral. The other side showed that 50% agree, and 31% strongly agree; 81% agree with the statement, then only 7% disagreed, and the rest were neutral.

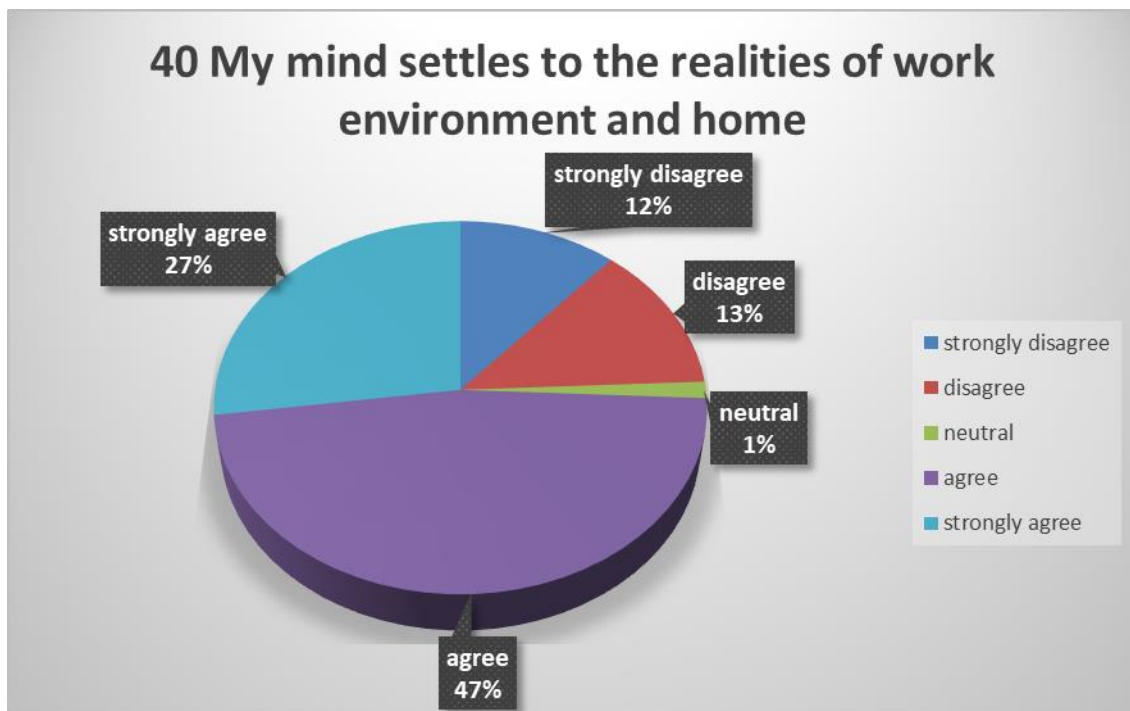


Figure 8.49: My mind settles on the realities of work environment and home

Source: Author's own construction

Response: The pie chart shows a 1% neutral to the statement, 12% strongly disagree with the statement, and 13% disagree with the statement; therefore, the disagree combined was 25%. On the other hand, 74% combined agree and strongly agree with the statement, with 27% being strongly agree and 47% was strongly agree.

### 8.2.3 SECTION C – Open ended section

You are kindly requested in this section to identify what you consider to be the merits and demerits of your knowledge of the subject under study. It is assumed that you are in your second year now operating in this format since the dawn of the Covid 19 Lockdown order. The focus of the study is, however, on the "effect of work from home on general productivity as viewed by you."

REQUEST 1; If you were the manager/supervisor of people doing your work now as it is, please list five critical issues [in terms of performance] you would look out for to make sure subordinates perform.

*Table 8.1: Critical issues in employee productivity*

Staff members have a good internet connection.
Motivate and communicate effectively with the staff.
Offer consultation to staff members
Deal with delayed due date's deadlines
Technical issues
Time management
Teamwork
Motivation from peers by seeing them doing the work
Longer duration of tasks caused by lack of motivation
Effective and clear communication
Accountability
Lack of face-to-face gatherings

Daily task measures
Work and life balance
Dependability and taking responsibility
Connectivity internet coverage
Working culture
Resistance to change and adapt
Absenteeism
Discipline
Undivided attention to work
Training on new systems
Management and leadership styles 2
Unavailability of the necessary equipment to work from home 2
Equal treatment of employees

Source: Author's own construction

REQUEST 2; from your 18 months plus experience since lockdown, what do you consider to be the most "negatives" [in terms of performance] when people work from home? Please list 5 of them below.

*Table 8.2: Negatives in working from home*

Increased stress levels
Poor of teamwork

Lack of motivation
Lack of understanding
Poor communication
Different work ethics
Lack of respect
Lack of team member motivation
Less input from team members
Delayed responses to staff members and clients
Lack of involvement
More excuses for getting the work done and increased laziness of employees
More disturbances from the noise made by neighbours
More time to socialise instead of focusing on getting the work done
Lack of vision among team members
Failure to manage time
Lack of corroboration
Slaking of work due to not meeting deadlines
Family disturbing work
Taking long breaks
Too much independence
Poor decision making



Poor internet connections
Lack of participation and involvement
It may be a risk to productivity
Unclear task descriptions
Load shedding
Work ethics differences

Source: Author's own construction

REQUEST 3; From your 18 months of exposure to working from home, what five things do you consider as advantages, in terms of productivity/performance, when people work from home?

*Table 8.3: Five productivity positives in working from home*

Saving money
Flexible work schedule
Less stress on face-to-face interactions
Provides a customisable office
There is location independency
Less moving from point a to point
Being stress-free of uniforms and corporate wears
Allows you to work in comfort
Having your own space

Fewer disturbances and destructions of surroundings and peers
Provides better work and life balance
Improved communication skills
It has an impact on sustainability
Less risk of getting sick
It allows more time to spend with family
Saving travelling expenses
It helps with improving your lifestyle, getting to eat healthier
Improves decision-making skills as you are working alone most of the time
It saves time because of less travelling, choosing outfits, ironing clothes and putting on makeup
It provides the advantage of personalising your workspace, which may improve productivity.

Source: Author's own construction

REQUEST 4; From your 18 months of experience, please list five changes you could make to the existing culture to ensure that all people working from home would perform better.

*Table 8.4: Five changes to culture to improve performance*

Planning monthly tasks in advance
Providing enough time for staff to complete tasks
Provide more training

Organise more workshops
Motivate employees more
Communicate effectively
Create team building activities
Focus on priorities
Compare and measure results
Encourage employees more communicate more
Learn together
Focus on results
Have meetings regularly
Provide clear task descriptions
Plan properly
Avoid distractions
Manage time accordingly
Embrace diversity
Socialising with one another
Celebrate accomplishments
Allowing everyone to communicate their differences
Communicating regularly
Being realistic with the team

Improve internet connections
Providing guidance to employees
Creating more online platforms
Delegate tasks properly
Ensure that the employees have access to the resources they need
Daily check-ins and moderate working hours

Source: Author's own construction

REQUEST 5; From your 18 months of exposure to working from home, please list five reasons why you would not allow people to work from home in terms of performance.

*Table 8.5: Five reasons not to allow work from home*

Might create differences
Might be confusing
It might create employee turnover
It might result in depressed employees
There might be a risk in productivity
More delays might occur
Employees might get too comfortable
There might be no social media time control
No direct working hours may lead to laziness

There might be more procrastination in this type of office environment
It might result in more absenteeism rated
It might cause high levels of employee takeover
There might be less competition
Creates room for miscommunication
Dealing with family issues while at work
Challenges people who are not self-motivated or have less confidence in themselves
May cause conflict of interest
It might challenge employees who cannot set boundaries between work and life
This might result in a lot of mistakes and errors

Source: Author's own construction

REQUEST 6; Using the table below, please indicate your priorities, supposing you were the owner of this business, but using your Lockdown work-from-home experience.

48 no difference

22 there is a difference

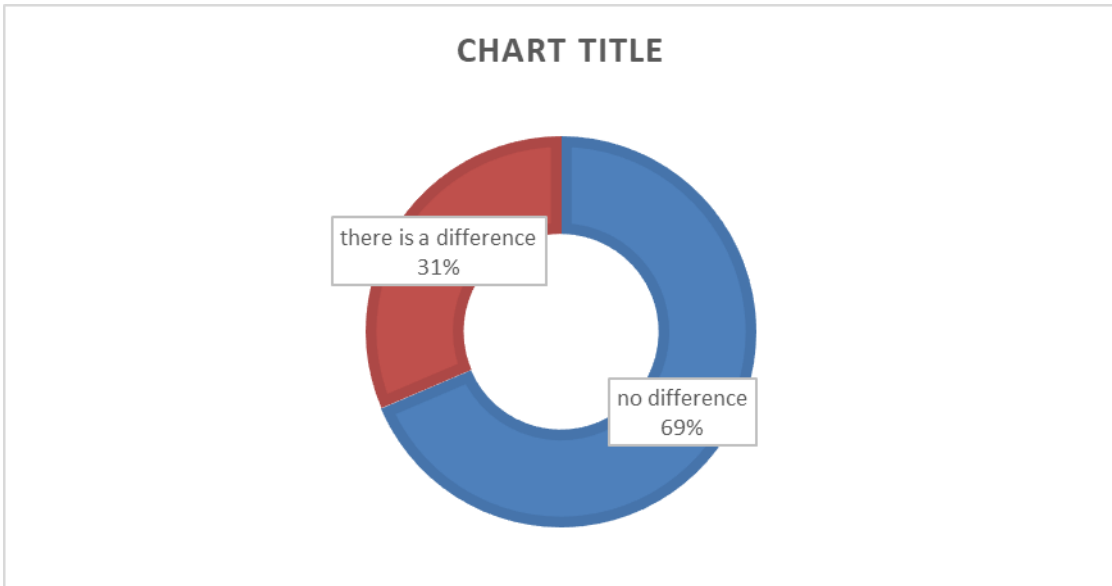


Figure 8.50: Work better in the office

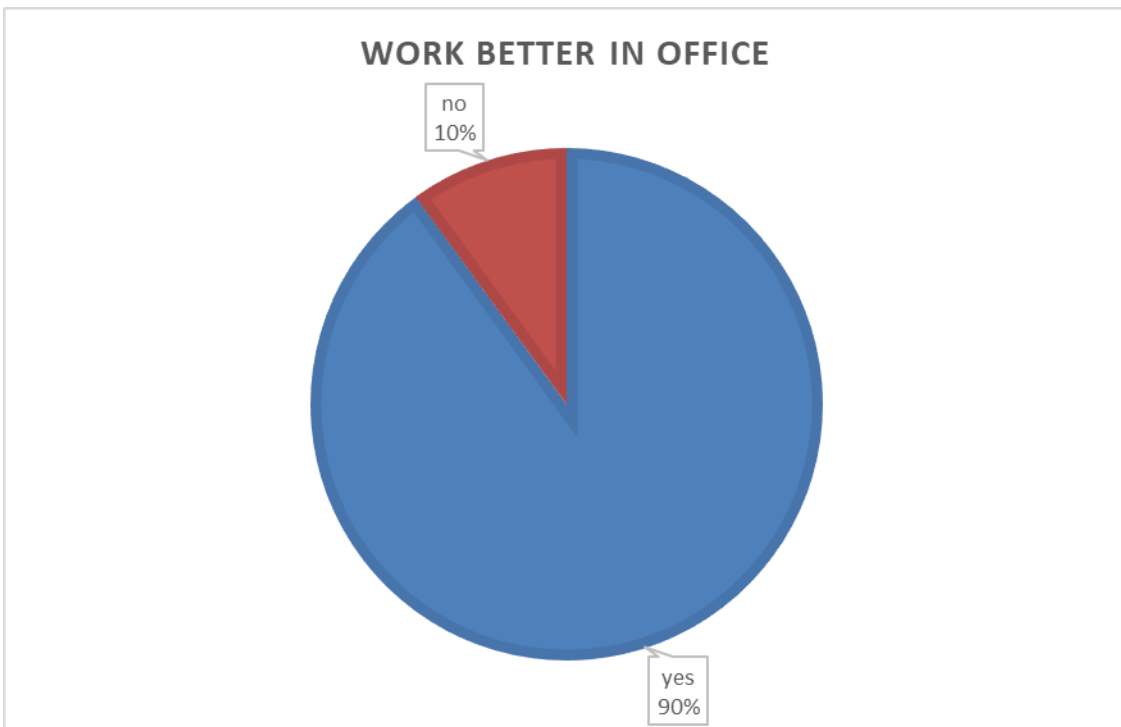


Figure 8.51: Work better in the office

Yes 41    No 29

Motivation in the office

Yes 39    no 7

Motivation at home

Yes 27    19

Disturbances in office

Yes 7    No 39

Disturbances at home

Yes 22    No 24

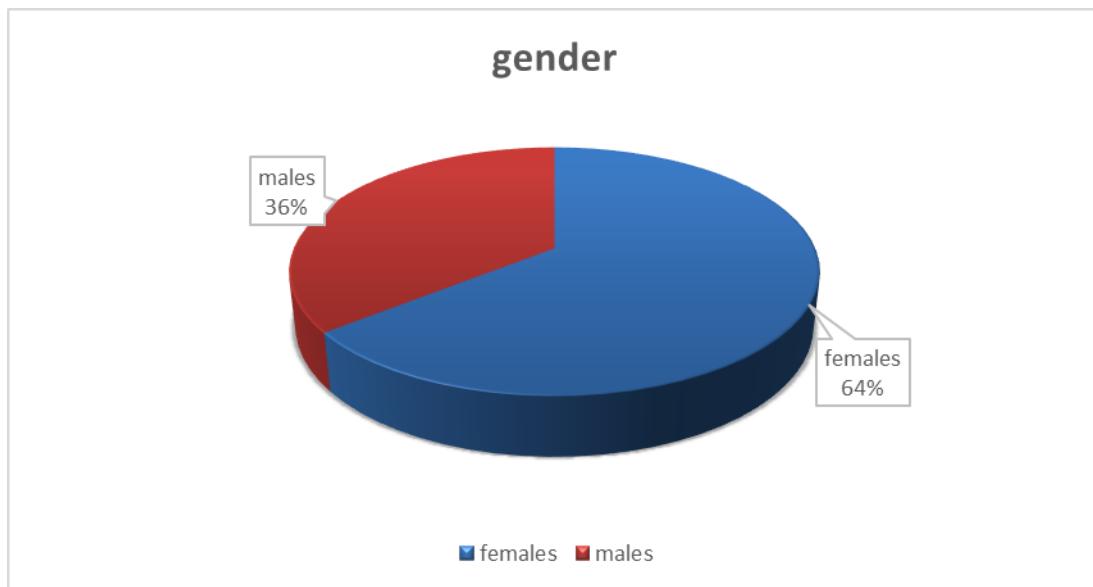


Figure 8.52: Gender

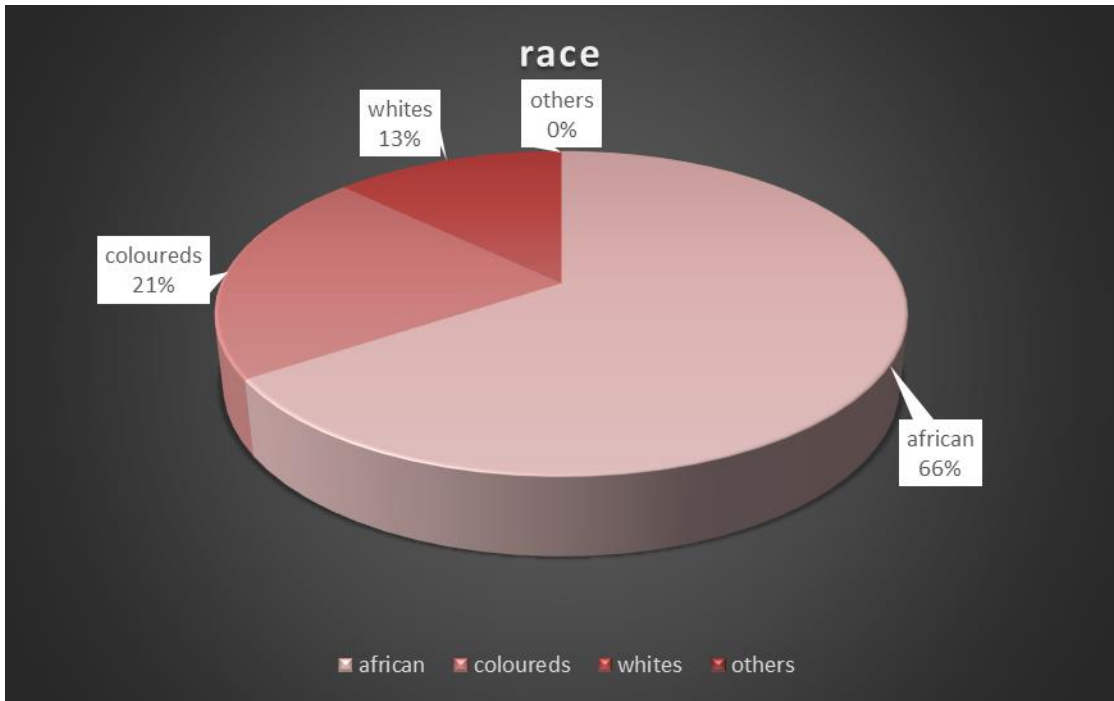


Figure 8.53: Race



### **8.3 Chapter Summary**

This chapter focused on the collected data, extracted from the questionnaires and made into a pie chart, line graphs and bar graphs. The study was doing a discussion of the findings, data analysis and interpretation of the data. The chapter begins with the introduction of the chapter. Then, it moves to the questionnaire sections where in the first section, which is section A is biography where the study was doing some random checks where it was looking at the positions and time they spent in their position, in Section B, it looks at the closed-ended questions where there was a range from 5 to 1 where 5 was the highest level of strongly agree, and 1 was the lowest of strongly disagree. Finally, the last section, C, was open-ended questions where participants were given a chance to state their opinion on the given questions.

## **CHAPTER 9**

### **SUMMARY, RECOMMENDATIONS AND CONCLUSIONS**

#### **9.1 Introduction**

The purpose of the research was to draw a comparison of the employee productivity levels between traditional and virtual at tertiary institutions in the western cape. The country has been under surveillance for the past two and half years, and the movement has been limited. People were only moving when there was a need. No one knew that the target population investigated could work virtually because of most people's perception, even though it is not documented that administrators always need to be in the working permission. The study was then able to do an investigation checking the productivity of employees when they were working in an old traditional way and virtual at the tertiary in the western cape.

In this chapter, the study looks at the summary of the findings with the conclusion of the research, the recommendations of the findings of the result, and what could be studied in the future.

#### **9.2 Summary of Chapter Objectives**

**CHAPTER 1:** Introduction to the study, where the study was given a brief of what the investigation was going to talk about and paving the way on what the chapters will be talking about. Key concepts were defined and clearly stated what the research was about. The literature review and the back of the study were preliminary to the survey, making sure to give a clear foundation for the literature review chapters.

**CHAPTER 2:** The study looks at the literature on the following topics in this chapter: Job performance, factors impacting job performance, and alignment of job performance to qualifications and tasks. The study went as far as expanding more and giving a necessarily explaining of the topics and the scholars supporting the issues.

**CHAPTER 3:** The study focuses on the motivation theories on what motivates employees and what is the motivation itself. The study dwells more on these topics: Motivation, theories of motivation, factors that boost performance, and factors that demotivate employee performance. The study was well presented in terms of how it is supposed to work.

**CHAPTER 4:** The study in this chapter focused on technology, technological working system, the impact of technology on performance, virtual and online operations, impact of technology on efficiency. The literature investigated the virtual side of the literature reviewed, which was then examined in this study.

**CHAPTER 5:** Ergonomics, the impact of ergonomics on performance, the impact of environment on performance, the role of leadership/management on employee performance, and implications of unsupervised admin operations.

**CHAPTER 6:** Conceptual framework, performance models, motivation models, a conceptualised model for virtual operations

**CHAPTER 7:** Research design, research methodology, mixed research methodology, merits and demerits of the mixed research methodology, data collection models, choice of data collection design, and data analysis.

**CHAPTER 8:** Data cleaning, editing, coding, capturing, illustration construction, analysis and interpretation.

**CHAPTER 9:** Summary of findings, conclusions, recommendations, limitations, study significance, and prospects for future study.

### **9.3 Summary of Findings**

#### **9.3.1 Section A: Biography**

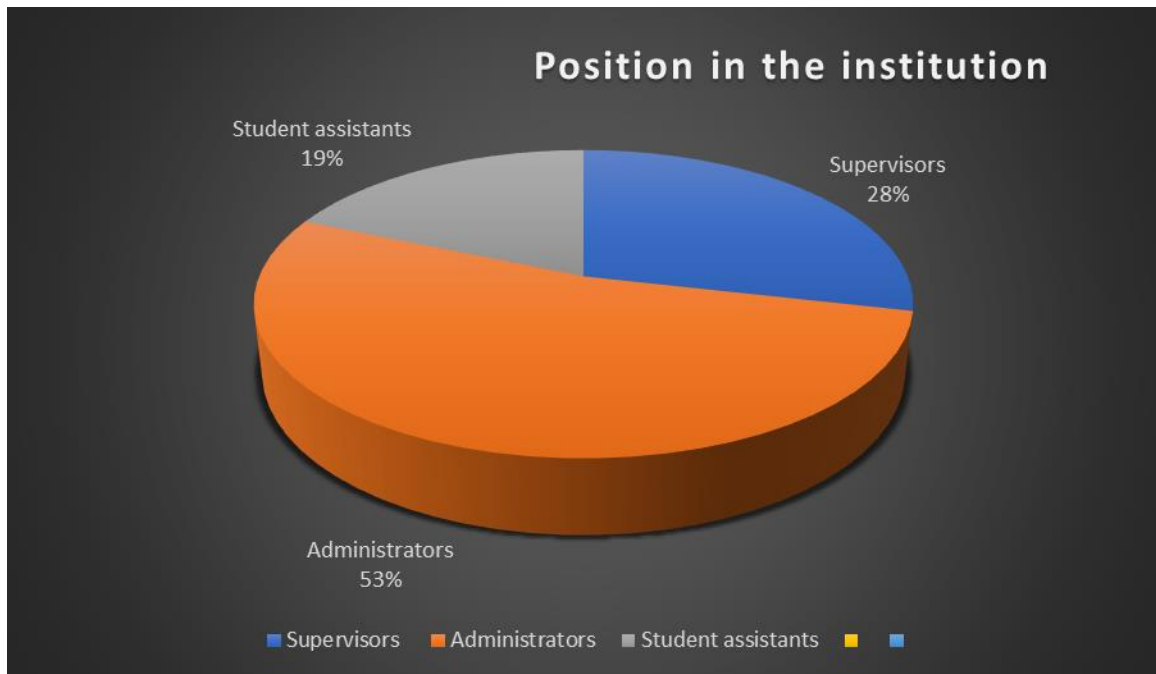


Figure 9.1: The positions of respondents to this survey

Source: Author's own construction

*Conclusion:* The study investigated the administrators in the research, and all the populated surveys were directed to the selected University of the Western Cape. Administrators The study compared the traditional way of working and the virtually of in terms of employee productivity. The study presented that 53% of administrators and 43% were student assistants and supervisors also dealing with administration work.

*Recommendation:* The study needs to balance the survey population so that whatever would be said could try to be balanced and not make the majority to be the administrators.

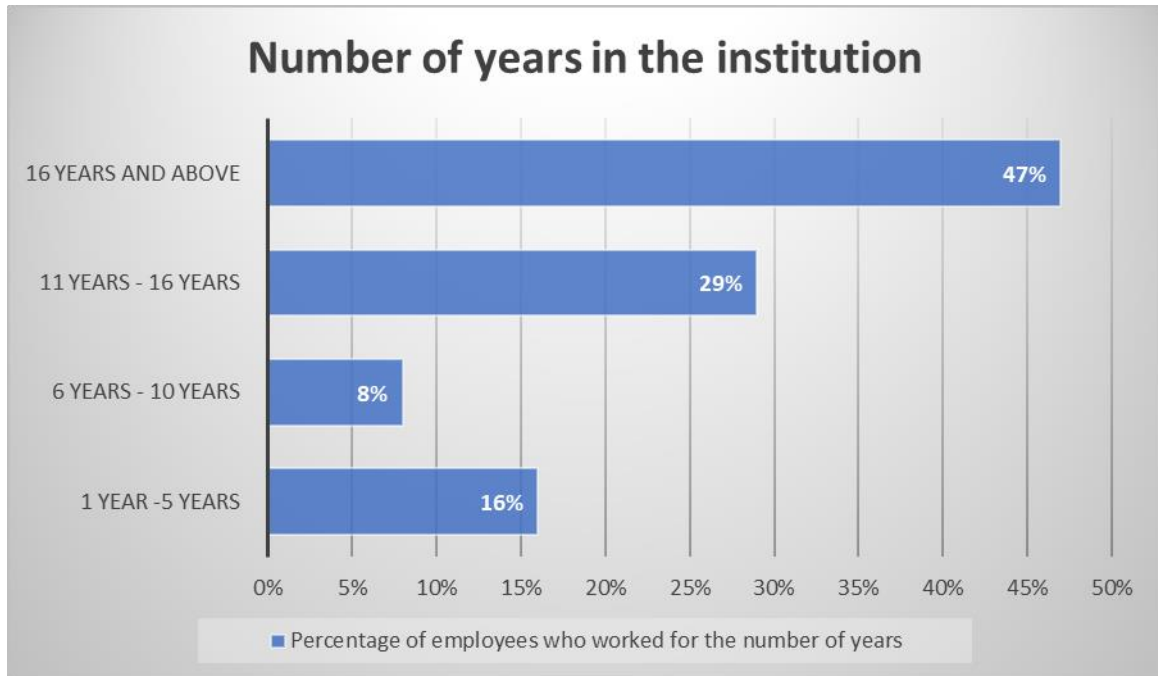
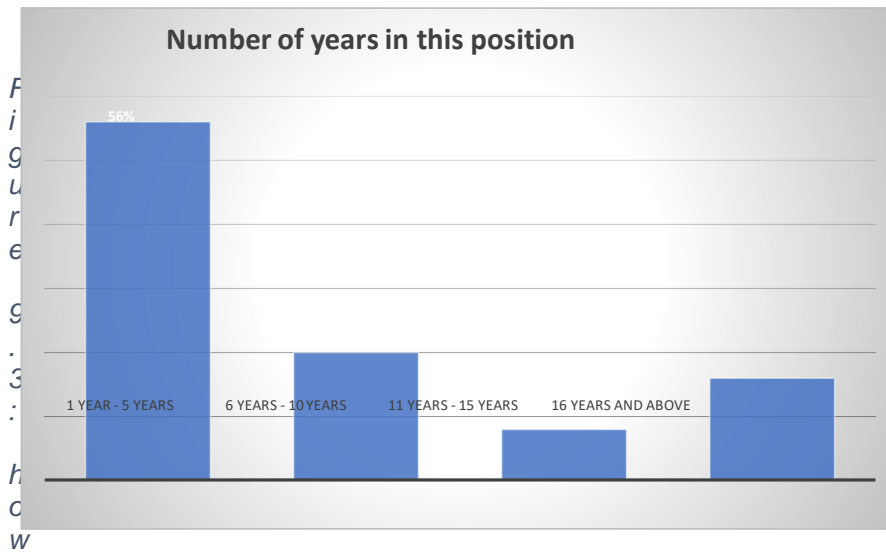


Figure 9.2: Number of years in the institution

Source: Author's own construction

*Conclusion:* One of the questions, when one is doing an investigation is to find out how many years the respondent has been in the company; do they know the in's and out of the company, where one would be able to differentiate the traditional way and virtually way and its productivity of the work. The data presented that 47% were 16 years and above, 11 years to 16 years was 29%, 8% were 6 to 10 years, and 16% were from 1 to 5 years.

*Recommendations:* The study needs to focus more on those who have been in the company for more than two years because it has been for two years since the company has been utilising the virtual office type of work, so those who have less experience would not be an assistance to the study because they do not know the traditional way of working. Other than that, not many recommendations can be said about other years because they qualify as fit to answer the survey.



How many years have you worked in this role?

Source: Author's own construction

*Conclusion:* This question is as important as the previous question, but this is the one that has significance because it has what the study is investigating. The results show the majority to be the ones who have been in the position of the company was 56% of year 1 to 5 years in that position.

*Recommendation:* The study recommends that one would have to use the older experience in terms of an answer to the survey as much as they would not be in the position for more than five years, and the study would recommend a purposive sampling to get relevant people.

### 9.3.2 Section B: Likert Scale [Close-ended questions]

#### 9.3.2.1 Flexibility and agility

Table 9.1: Flexibility and agility in working from home

	strongly disagree	disagree	neutral	agree	Strongly agree
	1	2	3	4	5
1 I work flexi-hours at home, and I have always wanted this.	3%	23%	43%	21%	10%
2 I work longer hours at home than I would in the office	4%	36%	33%	21%	6%
3 My work is clearly defined, so I don't need an office space	11%	16%	43%	21%	9%
4 My favourite work time is at night when all is quiet	16%	17%	37%	20%	10%
5 I don't have much discipline to work without a manager's assistance	11%	21%	39%	13%	16%
6 There is less stress for me at home than at the office	7%	13%	21%	50%	9%
7 There is less disruption for me at home than in the	7%	48%	23%	13%	9%

office					
8 It's quieter at home, and there are few disruptions to my work	41%	23%	4%	20%	12%
9 The office environment gives the impetus / the push to my work	3%	17%	12%	37%	31%
10 Talking to colleagues is part of my work and is not disruptive	0%	31%	27%	29%	13%
11 I don't see any difference between working from home or office	47%	26%	1%	14%	12%
12 My work is clearly outlined, and I know what to do on my own	3%	17%	11%	43%	26%
13 I always need consultation because my work is interdependent	44%	22%	6%	17%	11%
14 Not all customers are serviceable from home through emails	6%	20%	11%	24%	39%
15 My boss has to	6%	16%	11%	47%	20%



sign off everything I get to do in the office					
16 I get motivated when I work physically with team members	6%	9%	11%	43%	31%

Source: Author's own construction

*Conclusion:* The study in this heading looked at flexibility and agility, where it checked the motivation of employees to do their work and produce the results on what they are working on. The study or table above presents the first five statements. The participants were not choosing any sides; most of their responses were neutral to those statements. The table showed that not most customers are efficiently served through emails and must meet up with them face to face to unpack what was discussed in the email. Where they disagree that the statement said there is no difference between working from home and working in the office, they believe there is a vast difference.

*Recommendation:* The study suggests that all the flexibility and agility of the statements that were asked need to be measured in terms of those stating that people who cannot get assistance through emails need to engage face-to-face.

### 9.3.2.2 Work and personal life balance

Table 9.2: Work and personal life balance

	strongly disagree	disagree	neutral	agree	Strongly agree
	1	2	3	4	5

17 When working from home allows me more time for my family.	4%	17%	27%	40%	11%
18 I can balance my work/family issues whiles I work from the office	7%	23%	14%	39%	17%
19 Neighbours making noise are a constant disruption to my focus	3%	33%	24%	26%	14%
20 I will leave this job for less pay if I work from home	6%	33%	11%	16%	34%
21 I do not always finish the work in the day because of family duties	51%	21%	3%	13%	12%
22 My job is so important. I will not lose this for anything	21%	13%	3%	23%	40%
23 The noise from around me at home never affects my work pattern	10%	16%	11%	20%	43%
24 I work well when I have a good balance between family and	0%	16%	13%	30%	41%

work					
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Source: Author's own construction

*Conclusion:* In this heading, the study focused on work, personal and life balance, which checks whether the employees can balance work and personal matters. The respondents agreed with all these statements except 21 because they feel they do finish the job, and they are not doing any family duties while in office hours.

*Recommendation:* The study recommendation that can be given under this heading is that one needs to make sure the work they are doing is not disturbed by the personal life balance and the work. The other suggestion would be to make sure that once they are in their working hours, they need to make sure they are not disturbed by family issues whether they are working from home or the office.

### 9.3.2.3 Technology makes it easier

Table 9.3: Technology makes it easier

	strongly disagree	disagree	neutral	agree	Strongly agree
	1	2	3	4	5
25 I perform because technology enables me to work from home	14%	14%	7%	37%	27%
26 I don't have anything that says it	4%	4%	9%	13%	70%

is necessary to be in the office					
27 There is no space for social networks in the office, and I hurt that	53%	26%	11%	4%	6%
28 The office environment is more motivating than the home environment	19%	11%	1%	19%	50%
29 I don't want to be micro-managed, so I prefer working from home	11%	13%	4%	21%	50%
30 There is no substitute for physical interaction as a work motivator	11%	11%	0%	23%	54%
31 The home environment allows me to check on my social networks	11%	6%	0%	57%	26%
32 Too often, the technology breaks down, and I am not able to chat	16%	24%	3%	39%	18%

Source: Author's own construction

*Conclusion:* The study looked at technology and the role it plays in employees being able to accomplish their work. This was one of the essential headings in the close-ended questions because if this heading and its questions were not asked in the survey, it would be challenging to compare work productivity of those working virtually. After all, it needs technology for the work to be done. The study shows that the majority of the respondents agree with most of the statements regarding technology as a facilitator for remote working.

*Recommendation:* The study should then check the use of the technology that is not being misused in terms of employees being more on social networks than doing the work they are supposed to do. The study should then check the technology connectivity each person has, whether they are not struggling because of network constraints, causing them not get the work done on time or to be optimally productive.

#### 9.3.2.4 The realities of my life

Table 9.4: The realities of my life

	strongly disagree	disagree	neutral	agree	Strongly agree
	1	2	3	4	5
33 I feel encouraged when I separate home from the office for my work	0%	4%	12%	24%	60%
34 Altogether I prefer working from the office and playing at	4%	10%	11%	29%	46%

home					
35 I don't have space at home and can't have a separate workspace	7%	9%	14%	59%	11%
36 Though there is no space, everyone at home knows when I am busy	1%	4%	0%	79%	16%
37 There will always be a craving for a cup of tea or putting in order at home	0%	19%	9%	36%	36%
38 You cannot work effectively with little children around you always	11%	9%	4%	24%	51%
39 In the office, my mind shuts out everything except focus on work	0%	7%	11%	50%	31%
40 My mind settles on the realities of the work environment and home	12%	13%	1%	47%	27%

Source: Author's own construction

*Conclusion:* In this section, the study investigates the reality of the respondent's life on how they adjust to working in terms of the environment and how they adapt

to the people with whom they work. It presents all the people's types of work that they are dealing with when they need to be productive. All the questions under the heading showed that the respondents agreed with these statements.

*Recommendation:* The study should dwell more on productivity as it shows that there are some disturbances when working in both the traditional way and virtually. Still, in the classic, it feels more productive because the study can show how efficient the people can be because of the respect of the place, also advise where the employees are lacking in terms of their work and what can be done to assist.

### **9.3.3 Section C: Open-ended question**

*Conclusion:* The statements given in the open-ended questions, where participants were given a chance to express their opinion in the investigation of the study and also respond to the close-ended reaction in section b. The study analysed the responses from the previous chapter and looked at all the answers; it compared and contrasted the feedback given in the survey.

*Recommendation:* The study suggests that the given information from these five statements of the survey in the section would be considered by the selected company and be practised to make sure the company benefit and also the study in this section would be able to give an area where they can provide whatever information with regards to the survey.

## **9.4 limitations of the Study**

The study's research was limited only to the selected University in the western cape. In the established University, there are different types of employees that one can find; there are academic and non-academic staff, not to forget employees. The study was limited to the non-academic staff and the selected university administrator. The study did not focus on those not doing administration work; some employees are lecturers who do the administration work. Still, the study was not necessarily focused on those types.

## **9.5 Conclusion**

A brief overview of the study is provided in this conclusion. Chapter one was an introduction and background of the study where it provided the problem statement and the objectives the study would like to achieve and stated the significance of the study. Chapter 2 to chapter 5 was a brief on the literature review and expanded more on what the study was looking at it. The study then focuses on the conceptual model in chapter 6. Chapter 7 outlined the research methodology, while Chapter 8 was the data findings where the respondents from the survey showed that the comparison of virtual offices and traditional offices demonstrated a gap between the office where colleagues could disturb and attending to customers results in not as much productivity compared to when they work from home. The sample that was given felt there is productivity from home but not as compared to the one who is doing the work in the office and also complaining from working from home that there are many obstacles they have to deal with.

## **9.6 Further Area of Study**

The study met all the objectives, where it looked at the things given in the questionnaire, which were then answered. In this section, the study looks at the things that could be studied further for future studies.

The study needs to research other types of employees from the selected University of the Western Cape to check the study's comparison.

The study needs to expand more to other universities to see the productivity of their employees.

The study would need to apply a different sampling method and analyse the data separately; for example, the research on various faculties and how they operate regarding employee productivity.



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# QUESTIONNAIRE

**A comparison of employee productivity levels between traditional and virtual offices at tertiary institutions in the Western Cape**

**DEAR RESPONDENT;** You are requested to fill in this questionnaire if you have time and you are interested in doing so. Understand; it is not a must for you to fill in this questionnaire – if you feel uncomfortable whilst you are filling, in you are free to withdraw, you don't have to provide a reason. All the information provided by you is strictly confidential, and no authorities will have access to this information

## SECTION A – BIOGRAPHY

### 1. What is your position in the organization?

Supervisor	Administrator	General worker	Other
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### 2. Other, please specify

.....

### 3. How long have you been in this organization?

1 year -5 years	6 -10 years	11 - 15 years	16 years or more
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### 4. How long have you worked in this position?

1 year -5 years	5 years -10 years	10 years or more	16 years and above
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### 5. What are your duties / tasks in the organization?

Managing admin staff	Administration	Support admin staff	Other
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### 6. Other . please specify

.....

**7. Are you working from home since the Covid Lockdown?**

Always	Sometimes	When necessary	Never at all
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**8. What are the characteristics of your manager [task/relationship oriented]**

Task oriented	Relationship oriented	Balances both	Doesn't care
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**9. Do you have clearly defined work responsibilities?**

No defined tasks	Same tasks always	New tasks always	Depends on supervisor
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**10. Is your work / tasks structured and measurable?**

Yes	Some tasks	Very rarely	Not measurable
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**11. How does it feel like to work virtually / without a manager breathing on you**

It feels good	Good but challenging	No difference	Better with supervisor
---------------	----------------------	---------------	------------------------

**12. List here below anything that you may want to think of as important in these circumstances.**

- .....
- .....
- .....
- .....

➤ **SECTION B – LIKERT SCALE**

In this section you are requested to rank the statements in the order of 1-5 [1 = strongly disagree, 2 = disagree, 3 – neutral, 4 = agree and 5 = strongly agree].

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	<b>FLEXIBILITY AND AGILITY</b>					
1	I work flexi-hours at home = I have always wanted this	1	2	3	4	5
2	I work longer hours at home more than I would in the office	1	2	3	4	5
3	My work is clearly defined so I don't need an office space	1	2	3	4	5
4	My favourite work time is in the night when all is quiet	1	2	3	4	5
5	I don't have much discipline to work without manager's assistance	1	2	3	4	5
6	There is less stress for me in the home than at the office	1	2	3	4	5
7	There is less disruption for me at home than in the office	1	2	3	4	5
	<b>PRODUCTIVITY WHEN AT HOME</b>	0	0	0	0	0
8	It's quieter at home and there are few disruptions to my work	1	2	3	4	5
9	The office environment gives the impetus / the push to my work	1	2	3	4	5
10	Talking to colleagues is part of my work and is not disruptive	1	2	3	4	5

11	I don't see any difference between working from home or office	1	2	3	4	5
12	My work is clearly outlined and I know what to do on my own	1	2	3	4	5
13	I always need consultation because my work is interdependent	1	2	3	4	5
14	Not all customers are serviceable from home through emails	1	2	3	4	5
15	My boss has to sign off everything I get to do in the office	1	2	3	4	5
16	I get motivated when I work physically with team members	1	2	3	4	5
	<b>WORK / PERSONAL LIFE BALANCE</b>					
17	When working from home allows me more time for my family	1	2	3	4	5
18	I can balance my work / family issues while I work from the office	1	2	3	4	5
19	Neighbours making noise are a constant disruption to my focus	1	2	3	4	5
20	I will leave this job for less pay as long as I work from home	1	2	3	4	5
21	I do not always finish the work in the day because of family duties	1	2	3	4	5
22	My job is so important I will not lose this for anything	1	2	3	4	5
23	The noise from around me at home never affects my work pattern	1	2	3	4	5
24	I work well when I have good balance between family and work	1	2	3	4	5
	<b>TECHNOLOGY MAKES IT EASIER</b>	0	0	0	0	0
25	I perform because technology enables me to work from home	1	2	3	4	5
26	I don't have anything that says it is necessary to be in the office	1	2	3	4	5
27	There is no space for social networks in the office and I hate that	1	2	3	4	5
28	The office environment is more motivating than home environment	1	2	3	4	5
29	I don't want to be micro-managed so I prefer working from home	1	2	3	4	5
30	There is no substitute for the physical interaction as work motivator	1	2	3	4	5
31	The home environment allows me to check on my social networks	1	2	3	4	5
32	Too often the technology breaks down and I am not able to chat	1	2	3	4	5
	<b>THE REALITIES OF MY LIFE</b>	0	0	0	0	0
33	I feel encouraged when I separate home from office for my work	1	2	3	4	5
34	All together I prefer working from the office and playing at home	1	2	3	4	5
35	I don't have space at home and can't have separate workspace	1	2	3	4	5
36	Though there is no space, everyone at home knows when I am busy	1	2	3	4	5
37	There will always be craving for a cup of tea, or putting order at home	1	2	3	4	5
38	You cannot work effectively with little children around you always	1	2	3	4	5
39	In the office my mind shuts out everything except focus on work	1	2	3	4	5
40	My mind settles to the realities of work environment and home	1	2	3	4	5

### SECTION C = OPEN ENDED SECTION

You are kindly requested in this section to identify, from your knowledge of the subject under study what you consider to be the merits and demerits. It is assumed that you are in your second year now operating in this format, since the dawn of the Covid 19 Lockdown order. The focus of the study is however on the "effect of work from home on general productivity as viewed by you."

**REQUEST 1; If you were the manager / supervisor of people doing your own work now as it is, please list 5 critical issues [in terms of performance] you would look out for to make sure subordinates perform.**



- ❖ .....
- ❖ .....
- ❖ .....
- ❖ .....
- ❖ .....

**REQUEST 2; From your 18 months plus experience since Lockdown, what do you consider to be the most “negatives” [in terms of performance] when people work from home? Please list 5 of them below.**

- ❖ .....
- ❖ .....
- ❖ .....
- ❖ .....
- ❖ .....

**REQUEST 3; From your 18 months exposure to working from home, what 5 things do you consider as advantages, in terms of productivity / performance, when people work from home.**

- ❖ .....
- ❖ .....
- ❖ .....
- ❖ .....
- ❖ .....

**REQUEST 4; From your 18 months experience, please list 5 changes you could make to the existing culture to make sure that all people working from home would perform better.**

- ❖ .....
- ❖ .....
- ❖ .....
- ❖ .....
- ❖ .....

**REQUEST 5; From your 18 months exposure to working from home, please list 5 reasons why you would not allow people to work from home in terms of performance.**

- ❖ .....
- ❖ .....
- ❖ .....
- ❖ .....
- ❖ .....

**REQUEST 6; Using the table below, please indicate what your priorities would be, supposing you were the owner of this business, but using your Lockdown work from home experience.**

	Yes	No	YES – BRIEF COMMENT	NO – BRIEF COMMENT
Work better in office				
Work better from home				
Motivating in office				
Motivating at home				
Disruption in office				
Disrupting at home				
No difference for me				

*What is your gender*

<i>Male</i>	<i>Female</i>
-------------	---------------

*What is your racial grouping*

<i>African</i>	<i>Asian</i>	<i>Coloured</i>	<i>White</i>
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***Thank you for responding to these questions / statements, no one will be given access to your responses. Please don't put your name or that of your organisation = we want you to remain anonymous.***



**Assistant Dean**  
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10 August 2021

**Permission to conduct survey on FBMS premises**

I grant Siyasanga Ntanjana (student no. 216042488) permission to collect data from Administrators in the Faculty of Business and Management Sciences at the Cape Peninsula University of Technology (CPUT). Siyasanga Ntanjana is a registered student for the Masters in Business and Information Administration. The thesis is titled “A comparison of employee productivity levels between traditional and virtual offices at tertiary institutions in the Western Cape”. The supervisor is Dr Larry Jowah.

This consent in no way commits any individual to participate in the research, and it is expected that the student will receive explicit consent from participants. I reserve the right to withdraw this permission at any point in the future.

In addition, the company’s name may or may not be used as indicated below.  
 (Tick as appropriate):

	Thesis	Conference paper	Journal article	Research poster
Yes				
No	✓	✓	✓	✓

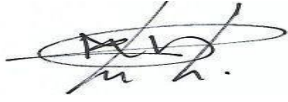
Yours sincerely

Professor R. Rampersad  
**Assistant Dean, Research, and Innovation**

Office of the Chairperson  
Research Ethics Committee

**FACULTY: BUSINESS AND MANAGEMENT SCIENCES**

The Faculty's Research Ethics Committee (FREC) on **14 September 2021**, ethics **APPROVAL** was granted to **Siyasanga Ntanjana (216042488)** for a research activity for **Master of Business and Information Administration** at Cape Peninsula University of Technology.

	<b>14 September 2021</b>
<hr/> <b>Signed: Chairperson: Research Ethics Committee</b>	<hr/> <b>Date</b>

<b>Title of dissertation / thesis / project:</b>	<p style="text-align: center;"><b>A comparison of employee productivity levels between traditional and virtual offices at tertiary institutions in the Western Cape</b></p> <p style="text-align: center;">Lead Supervisor (s): Dr L. E. Jowah</p>
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**Decision: APPROVED**

The proposed research may now commence with the provisions that:

1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the CPUT Policy on Research Ethics.
2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study requires that the researcher stops the study and immediately informs the chairperson of the relevant Faculty Ethics Committee.
3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing accompanied by a progress report.
5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, notably compliance with the Bill of Rights as provided for in the Constitution of the Republic of South Africa, 1996 (the Constitution) and where applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003 and/or other legislations that is relevant.
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