Evaluating critical success factors of remote work for bank employees, in Gauteng, South Africa.

By

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GLOSSARY OF ABBREVIATIONS

Abbreviation	**Full description**
ANOVA	Analysis of Variance
COVID-19	Coronavirus disease
GDP	Gross Domestic Product
HSSREC	Humanities and Social Sciences Research Ethics Committee
ICT	Information and Communications Technology
IMF	International Monetary Fund
IoT	Internet of Things
MS Forms	Microsoft Forms
SPSS	Statistical Package for Social Sciences
VPN	Virtual Private Network

ABSTRACT

Remote working occurs when employees conduct work outside the traditional office location of the employer. This practice has been steadily increasing over the years due to technological enablers and globalization. However, the COVID-19 pandemic accelerated remote working in the past few years because of government social distancing regulations, that were enforced to circumvent the spread of the virus. The regulations influenced many organizations to unexpectedly adopt remote work policies. This was due to their required adherence to COVID-19 restrictions and sustained business continuity, during the global health crisis. Even though literature provides numerous studies on remote work, they are often not in the context of South Africa and the COVID-19 period. The focus of this research was to determine predictors of remote work success in a South African context, considering the pre- and post-COVID periods. This research was undertaken to evaluate critical success factors of remote work for bank employees in Gauteng, South Africa to provide conclusive evidence of the most important predictors of remote work success. This will facilitate decision making for organizations that continue with telecommuting beyond the pandemic period. In this study, remote work success is defined as the ability of an organization to meet or exceed its business objectives whilst working remotely. A conceptual framework was defined to frame the study and it included organizational, people, Information Communication Technologies (ICTs), location and environmental factors. Then a quantitative post-positivism research methodology was applied to further analyze each of the proposed critical success factors of telework. This study was conducted in the field of Information Systems and Technology, and it sought to understand the social phenomenon of employee perceptions of what they considered critical success factors of remote work. Therefore, the selected structured quantitative research approach was deemed suitable.

The data collection for the study was conducted using a closed-ended electronic questionnaire. The sample population of this study consisted of 150 remote-working bank employees. Empirical evidence from statistical tests confirmed that all the proposed critical success factors suggested in the conceptual framework of this research were significant predictors of successful remote working except for organizational factors. The people factors were identified as the greatest predictor of remote working success. The research outcomes also indicated that even though the surveyed respondents had a great preference for remote work, they sometimes wanted to work from the office location. Despite the research outcomes demonstrating that employees perceived remote work as more successful and productive than working from the office. There were slight differences in significant agreements across the sample population demographics such as gender, marital status, ethnicity, and age. In conclusion, the research found that the most critical success factor of remote working was employees of the organization. The research outcomes demonstrated that people factors were instrumental to the success of remote working organizations. Provided the people felt empowered with adequate telecommuting IT tools, remote work policies and management support.

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Chapter One – Introduction and Background

1.0 Introduction

The introduction and background of the study, the problem statement, the goal of the investigation, including the main questions formulated for the study, motivation, the overall structure of the dissertation with an outline of the chapters are all provided in this chapter, which covers the brief basis of the research.

1.1 Introduction and background

Remote work was globally accelerated due to the COVID-19 outbreak (Dabija, 2021). Remote work is synonymous with home-based, virtual workplace, mobile work, flexible work arrangement, telework, and telecommuting, distributed work, distance work. According to literature all these terms described work that occurs outside the premises of an employer (Lebopo, Seymour, & Knoesen, 2020). Remote workers are also referred to as teleworkers, virtual teams, telecommuters, or dispersed teams. All these terms suggest working conditions that do not require physical presence of co-located teams, for work to take place. Other authors defined remote work in terms of two dimensions, i.e., the employee distance from traditional workplace and the use of Information and communication technologies to work (Carillo, Cachat-Rosset, Marsan, Saba, & Klarsfeld, 2021). The fundamental principle for remote work is that employees work in a location different from that of the employer. They collaborate through digital and electronic technologies to achieve organizational objectives and project goals. This is a worldwide phenomenon that has been growing steadily in pertinent labour markets, further escalated by the COVID-19 outbreak.

The world was overcome with a COVID-19 global pandemic in the late months of the year 2019. An infectious disease caused by the SARS-CoV-2 virus. The World Health Organization (WHO, 2019) reported that initial traces of the virus in humans supposedly originated from China. Earliest known cases were linked to a wholesale food market in Wuhan from early December in 2019. The corona virus pandemic became highly publicized worldwide in mid-December 2019 hence the name “COVID-19” (Abulibdeh, 2020). The first South African case was reported in January of 2020. Subsequent and more frequent cases were then reported. The high number of reported COVID-19 cases led to an official national lockdown that authoritatively commenced mid-March of year 2020, when the National State of Disaster Act was declared by the South African president. This Act was instituted to enforce government-imposed safety and social distancing rules with the intention to curb spreading of the COVID virus in the Republic. The national lockdowns were based on a high number of COVID cases reported on various media platforms by the department of health.

The COVID regulations imposed a global unexpected and rapid transformation of office based to home-based work. Organizations from different parts of the world compelled employees to stay home in adherence to COVID-19 regulations (Dabija, 2021). Dabija (2021:1) further stated that "Before the outbreak of the COVID-19 pandemic, remote work and its related forms were partially acknowledged by employers, as an alternative or possibility for task management, but not a necessity". Other researchers such as Abulibdeh (2020) shared a similar sentiment on the global remote work upsurge during COVID-19 period. The telework upsurge was also evident in South Africa, as many organizations were compelled to adhere to the State of National Disaster Act put in place by the government, by pursuing remote work policies instead of the physical/office-based work arrangements.

In the year of 2022, the pandemic was declared non-critical in many parts of the world (Murray, 2022) Social distancing restrictions were also removed in South Africa. This required organizations to re-adjust and adapt to implementing voluntarily remote work policies, outside a health crisis. As remote working organizations were no longer bound by COVID-19 regulations. The re-adjustment necessitated an evaluation of whether remote working policies that were instituted during COVID-19 era were still suitable outside the COVID regulations. This was the main reason for the selected topic of this study. The research out- comes will be a consequential addition to the body of knowledge in the topic of remote working. Based on the evaluated critical success factors of remote work in the context of pre and post COVID periods. With the intention to provide knowledge to organizations on the effectiveness of voluntary remote work and perceived productivity from teleworkers.

1.2 Research problem

Remote work predated the COVID-19 pandemic and promises to continue in future. Research evidence suggested that COVID-19 accelerated the adoption of telework worldwide (Abulibdeh, 2020). The adoption of remote work by organizations was driven by the mandatory lockdowns and social distancing regulations instituted by government policies. To curb the spread of the infectious and deadly disease. The daily statistical reports on the number of COVID-19 infections that were published by the National Institute for Communicable Diseases (2022) reported that the Gauteng province had highest COVID-19 infections and related death rates in South Africa. The Gauteng province is often described as the retail hub of South Africa and as such, the province is a host to various multi-national corporates and Information and Community Technology organizations (Deon, 2011). This was one of the reasons Gauteng was selected for conducting this study.

This study investigated critical success factors of remote work, outside the COVID-19 regulation confinements, whereby employers and employees were at liberty to voluntarily choose between conventional and virtual workplaces. The pandemic period proved that remote work can be an effective risk mitigating strategy (Laakko, 2021) to ensure survival and business continuity of an organization when office-based operations are no longer possible.

This was the case with the COVID-19 natural disaster in the period 2020 and 2022. The pandemic interrupted the office-based work routine in favour of telework because of strict COVID- 19 regulations (Lebopo, Seymour & Knoesen, 2020). The global lockdowns were intended to contain the spread of the virus but also had a direct impact in the increase of remote working (Heiberg & Winning, 2020). Due to several organizations being compelled to implement remote working at short notice in adherence to the regulations.

When the pandemic was officially declared obsolete in many parts of the world, organizations were now faced with the task to determine remote working strategies outside the COVID restrictions. The transition of remote working caused by COVID-19 has been investigated in different perspectives such as education (Sadjadi, 2023); corporate (Smite, Moe, Hildrum, Gonzalez-Huerta & Mendez, 2023) insurance (Tarasiuk, A., & Wojno, 2023) for various organizations in different parts of the world. A similar telework study conducted in China investigated remote working for banks but was focused on technical security issues pertaining to accounts, client-to-cloud and cloud-to-client authentication, trust, privacy, and security (Zhao,

Miao, Zhao & Naghshbandi, 2023). However, in the South African context, there is little research of the impact of remote work on banking institutions. To close the literature gaps this study sought to investigate and identify the critical success factors of remote work, using a research sample from a banking institution in the Gauteng province of South Africa. This study provided knowledge regarding remote employees' perceptions about what they considered to be critical success factors for effective telecommuting and productivity.

1.3 Aim of Study

This research project evaluated critical success factors of remote working for bank employees in the Gauteng province, at the Rosebank office. This study aimed to add to the body of telework knowledge, by presenting research outcomes to support decision making for organizations that want to implement or retain remote work policies. The study defined and evaluated critical success factors of remote work in South Africa. The study outcomes offer information and recommendations for suitable remote working conditions based on strong predictors of remote working success. For organizations to create conducive and productive conditions for remote workers, outside the COVID-19 restrictions.

1.4 Research Questions

An electronic questionnaire was identified as a suitable data collection instrument to address each of the research questions of this study. The data collection process was carried out in the month of November 2022. Thereafter, a quantitative analysis of the data was completed using a Statistical Package for the Social Sciences (SPSS), an IBM software tool for data analysis. With assistance from a professional statistician for computing the tests applied to all the research variables in this study.

Research question 1: What is the impact that people, organization, ICTs, location & environment factors have on the success of remote work, for employees of a bank in Gauteng, South Africa?

Research question 2: What is the perceived impact of working remotely on the productivity of bank employees in Gauteng?

Research question 3: How often do employees prefer office-based or remote working?

1.5 Research objectives

Research objective 1: To determine if aspects of people, the organization, ICTs, location, and environment have an impact on the success of remote work for bank employees in Gauteng, South Africa.

Research objective 2: To determine the perceived impact of working remotely on the productivity of bank employees in Gauteng.

Research objective 3: To determine employee preference between office-based and remote work.

Emphasis was placed on the "why" during the investigations. To understand the underlying motives and reasons for employee preferences. So that the key factors driving the choice could be extrapolated and encompassed in the research findings.

1.6 Significance of Study

The study aimed to provide a retrospective of remote work from employees of a particular South African bank. The selected bank for the study was one of the organizations that accelerated remote work during

the COVID-19 period. The bank adopted remote work to mitigate negative impacts on business continuity when routine office-based work was interrupted. In addition to determining critical success factors for remote work, the study sought to gain insights on employee preferences between office-based and home-based work arrangements. Furthermore, research participants were asked to provide their perceptions on the impact that remote work had on their individual productivity.

1.7 Structure of the study

The structure of this dissertation comprises of five chapters summarized in Table 1.1.

Table 1.1: Structure of the Thesis

Chapter	Content
Chapter one - Introduction and Background	This chapter provided an overview, background and aims of the study. It also presented the research questions and objectives that were addressed when evaluating critical success of remote work in a south African banking institution in Gauteng.
Chapter two – literature review	Chapter two examined literature on the topic of telework. Focusing on the impact exerted by COVID-19 and key success factors of remote work. Key words that were used to search for literature addressing the research questions and objectives included remote work, success factors, COVID-19, 4IR, Telecommuting and ICTs. This chapter demonstrated how teleworking and industrial revolutions coincided. Then it examined applicable theoretical frameworks that aligned to the research objectives of this study. The conceptual frame- works were evaluated and compared according to their suggested contributions to remote work success. The strengths and weaknesses of each framework were determined and discussed, to create a conceptual framework suitable to meet all study objectives. The adapted conceptual framework captured strengths from the existing frameworks and provided recommendations for the weaknesses. Chapter two also provided the scope of the research and influenced the choice of research methodology and data analysis, covered in chapters three and four of the study.
Chapter three – Research methodology	The research methodology chapter described the research approach followed to evaluate critical success factors of remote work in a banking institution located in South Africa, Gauteng province. It provided reasons for the selected research methods, data collection instrument and sampling strategy. The chapter was concluded by highlighting ethical considerations and limitations for the data collection and analysis.

Chapter four – Data Analysis	The research findings from respondents and literature were presented in chapter four. A discussion on the research instrument and statistical tool for data collection and analysis was also provided in this chapter. Namely the survey questionnaire and SPSS were utilized during the data collection, analysis, and interpretation. Discussions about research results in chapter four lay a foundation for chapter five. Chapter five concludes the report with interpretation of the study findings and recommendations for future research.
Chapter five – Summary of findings & Conclusions	This chapter presented a summary of the results from the evaluation of the proposed critical success factors of remote work, from literature and sample population. The research conclusions and recommendations on future studies were also discussed in this chapter.

1.8 Summary

Chapter one provided a provided the background of the study, the research problem and aims of the study. From which the research questions and objectives were formulated and presented. The significance of the study was briefly discussed as well. The chapter was concluded by providing a summary of the thesis structure that highlighted a synopsis of each chapter and its contents.

Chapter Two - Literature Review

2.0 Introduction

Chapter one introduced the conceptual setting, problem statement, research questions, and the significance of the study, as well as the layout of the dissertation. This section gives an overview of the existing literature reviewed concerning factors of remote work that employers and employees regarded critical for organizational telework success. This was in line with the objectives of this research project to evaluate the critical success factors of remote work, investigate the impact of remote work on employee productivity and investigate employee preferences between office-based and remote work. In the banking industry, for a particular financial institution where primary research was conducted. In reviewing the literature, the study was guided by the following research objectives and questions:

- **Objective one -** To determine if aspects of people, the organization, ICTs, location, and environment have an impact on the success of remote work for bank employees in Gauteng, South Africa.
- **Objective two** - To determine the perceived impact of working remotely on the productivity of bank employees in Gauteng.
- **Objective three** - To determine employee preference between office-based and remote work.

The study opted for a thematic literature review by focusing on some of the key themes provided in literature. The keywords that were used to search for relevant information regarding telework success factors included Telecommuting, *ICT, Socioeconomic status, Productivity, Telework success and Industrial Revolutions.* These search terms were instrumental in filtering out irrelevant sources and providing literature that aligned to the scope and topic of the study. Therefore, the chapter was based on the review of journal articles, internet blogs, and other publications sourced using the keywords relevant to the topic of remote work success factors.

In reviewing the relevant literature, the study started by conceptualizing "Remote work" or "Remote working". By focusing on themes that were regarded applicable to the study such as, successful remote working; evolution of remote working; remote working in the 21st century; and remote working prior to 21st century. The second part was a review of conceptual frameworks and justification of the proposed conceptual framework.

2.1 Remote work Success

In the context of this study, success refers to the ability of an organization to meet or exceed its business objectives under the conditions of remote working. The study definition of success contrasts with the general definition of the term "Success", which is often described as an accomplishment of an objective or intended purpose (Al-Sai, Abdullah, & Husin, 2020). The study approach was to zoom into the critical success factors of remote work, rather than the generalized definition of organizational success. Applying the general definition of success for this research would have required a broader investigation. AI-Sai et al, (2020) described critical success factors as one of the strategies used by Chief Information Officers (CIOs) to identify information that is most important for making significant strategic decisions in organizations. This aligned with the aim of this study, to provide insights about critical factors that contribute to the success of remote working organizations. To enable informed decision making regarding remote work strategies and policies, outside the constraints of COVID-19 regulations. The study outcomes offered new and statistically analysed knowledge on critical success factors of remote work i.e. People, Organization, Environment and Location and ICTs. For consideration by teleworking organizations for retrospect and planning.

Some of the reviewed literature on remote work indicated that success of a remote organization required a well-planned and implemented telework strategy (Gohoungodji, N'Dri & Matos, 2022). The authors further explained that doing this involved providing employees with essential resources and setting up proper communication channels and policies for remote work. Remote working organizations that adhered to these recommendations were reported to have higher probability of attaining organizational and employee goals (Gohoungodji et al.,2022). Some examples of organizational goals include profitability, customer satisfac- tion, competitiveness, and so forth. Whereas employee goals are unique to each remote worker, but they can typically include upskilling in use of ICTs, career growth, job satisfaction, rewards, recognition, and general well-being (Komiljonovna, 2023). Therefore, successful telework was regarded to create working conditions where both the organization and employees derived satisfaction and benefit from remote work. While meeting or exceeding both business and employee needs.

2.2 Technology as an enabler for remote work

Technology has drastically changed the operational roles in many organizations. There has been a persistent evolution of technology advancements throughout history that started in the 18th century and progressed to date (Davis, 2016). This is generally referred to as the Industrial Revolution. Technology advancements have been suggested to directly influenced the progression of remote working (Kasinathan, Pugazhendhi, Elavarasan, Ramachandaramurthy, Ramanathan, Subramanian & Alsharif, 2022).

Using Information and Communication Technologies (ICTs) to enable work outside of conventional office locations. ICTs enable remote work in the current day, by creating a borderless and global labour market that employees and employers can participate in (Lechman & Popowska, 2022). Since the traditional labour market and titles have changed, it is no longer always necessary for employees to be physically present on the premises of an employer to conduct business there. This transition implied a demand for a workforce with strong technological aptitude for remote work. Whereby the employees demonstrate minimal ICT knowledge and abilities necessary to contribute to the emergence of virtual workplaces (Pygma, 2022). Additionally, it was anticipated that in the future, virtual workplaces will be widely used and become the standard (Pygma, 2022). One of the studies on remote work evolution predicted that industrialized economies will be more impacted by distant labour than emerging ones (Change blog, 2022). According to the authors' forecast, by 2030, automation will cause the economies of the United Kingdom, Germany, and the United States to lose around 50% of their full-time employees in favour of remote labour (Change blog, 2022: 11).

This worked in conjunction with other literature on how advancements in technology have transformed the global landscape and fostered the rise of telework. Applying the same estimate to a developing nation like South Africa is not practical due to the little number of telework research studies conducted in this nation. In terms of economic advancement and style of living, there are differences between developing and developed nations as well (Gschwind & Vargas, 2019). Such differences were brought to light at a recent government event, which called into question whether South Africa, a developing nation, is prepared to fully embrace the contemporary digital era. The lack of infrastructure capabilities and the economic development conditions of South Africa prevents the government from taking advantage of 4IR potential (Glewwe & Van der Gaag, 2019). The president of South Africa established a presidential commission in 2019 (Pygma, 2022). The results of that endeavour, however, have not yet been made public (Pygma, 2022). This demonstrated that South Africa lacked the legislative frameworks necessary to address the market disruptions that 4IR is anticipated to cause. Furthermore, due to a lack of internet connection, foreign and domestic investments, to name a few causes, the digital advances were reported on a small scale (Pygma, 2022). All of those were contributing aspects to consider while evaluating the country`s readiness to seize remote working opportunities presented by the fourth industrial revolution. One of which included effective teleworking from anywhere in South Africa without any technological limitations because environment, location, employees, and ICT factors are all coherently enabling this.

2.3 Remote work in the twenty first century

The primary aspect of any employment determined the style of workplace atmosphere throughout history. When contrasting the traditional and emergent job descriptions, this became clear due to the labour and machinery-intensive nature of many historical jobs (Popkova, Yulia, Ragulina & Bogoviz, 2019). Which necessitated workers' physical presence. Information technology enabled work to be done from anywhere in the modern information age (Davis, 2016). This transition between traditional and modern working methods was made possible by ongoing technological development and globalization. Utilizing ICT systems that allow a geographically dispersed staff to work remotely through networked hardware and software capabilities. The world is currently in the fourth industrial revolution. This period is characterized by a convergence of artificial intelligence (AI), robotics, the internet of things (IoT), and generic engineering, to name a few. This period is also referred to as Industry 4.0 or 4IR (Davis, 2016). Convergence of the technologies was said to promote remote team collaboration among teleworkers and create effective remote working conditions.

ICTs were cited by Messenger (2019) in his assessment of telework in the 20th century as a crucial enabler of contemporary virtual enterprises. ICTs were said to provide teleworkers with remote connectivity to collaborate with colleagues from anywhere in the world (Messenger, 2019). The authors did, however, make a contrast between the old and modern conceptions of telework. Some historical telework studies often contextualized remote work in a stationary home location and often overlooked the possibility of mobile offices (Messenger, 2019). Mobile offices were suggested to provide extra mobility options to remote workers though the use of use portable ICT gadgets, that can be operated from any location instead of a restricted or stationary home offices. This meant that a remote worker might complete work while traveling by train, sitting at a coffee shop, or running other errands away from the workplace or their home. A possible explanation for this is that as the 20th century came to an end, ICT gadgets became more affordable and portable (Messenger, 2019). Therefore, the study also investigated the use and impact of ICTs on the success of remote work by remote workers of the banking institution, in which the research was completed.

The fourth industrial revolution, according to Carillo, Cachat-Rosset, Marsan, Saba, & Klarsfeld (2021), was also responsible for the ongoing evolution of remote work. Which is characterized by ongoing technological advancements, fast internet connections, AI automation, and big data analytics. There are differences in the impact and scope of 4IR between developing and industrialized countries, according to Messenger's 2019 report on telework in the twenty-first century. Since this study was conducted in one of the South African banking institutions, it is crucial to emphasize this disparity.

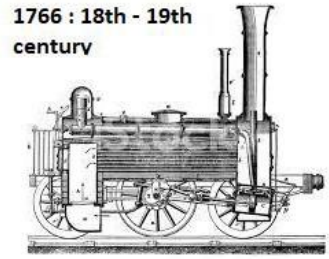
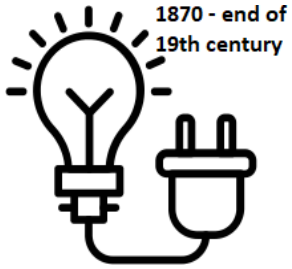
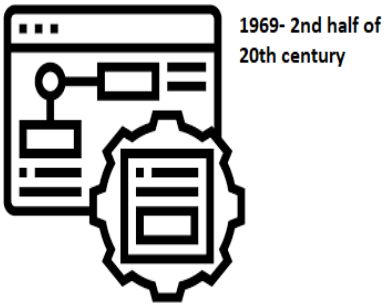
The report was put together and published by Messenger (2019) and other academic collaborators to demonstrate the influence of telework in the twenty-first century. The article was based on the analyses of several specialists from various advanced and emerging economies (Messenger, 2019). The combined study findings demonstrated the differences in ICT adoption between developed and poor nations. In comparison to established or first-world countries, developing nations typically lack key technological infrastructure, educational capacities, telecommunications infrastructure developments, reliable energy power, and other factors (Glewwe & Van der Gaag, 2019). This was derived from the categorization and characteristics of developed and developing nations, which are often assessed using per capita income. As a result, some of the recommended characteristics of developing economics were considered during the data gathering and analysis phases of this study. Considering that the study was carried out in South Africa, one of the emerging nations.

Researchers that studied telework and the fourth industrial revolution argued that technological advancements and remote work go hand in hand (Carillo et al., 2021). Sako (2021), for instance, produced a study about technology strategy and management in relation to remote work and supported the idea that it was not a recent development. Accordingly, remote work was viewed as a continuation of flexible work schedules (Sako, 2021). Sako (2021) emphasized further that the widespread use of internet access in the 1990s made remote work possible. It was also observed that the occupations of remote employees in earlier years, placed emphasis on job characteristics as determinants of whether work could be done remotely or at employer site. One must consider a variety of interconnected ICT hardware and software solutions that communicate through high-speed internet to provide real-time employee collaboration from various locations to show the crucial role that ICTs play in enabling remote work. This example shows how ICTs, people, and organizational factors combine, making it impossible for any one component to exist and have a significant impact on the success of remote work in isolation. When all or some of the crucial success factors worked together then remote working success was considered feasible.

2.4 Remote work before the twenty first century

A timeline of the industrial revolution in several centuries was deemed significant for this study to demonstrate the historical overlap between the evolution of remote work with industrial revolutions. The timeline also showed the shift from traditional to virtual labour markets, influenced by the technological advancement. The various work settings and trade instruments that were used during each stage of the industrial revolution are summarized in Table 2.1 together with changes in remote work, as the revolutions progressed from one century to the next. The information was taken from and modified for use in Popkova, Yulia, Ragulina, and Bogoviz's (2019:24). Additionally, as mentioned by Carillo (2021), this overview demonstrated the advantageous effects that technology improvements have had on telework. According to the author, advances in technology were positively correlated with the rising popularity of telecommuting. This was noted in Carillo`s (2021) research, which examined the relationship between the development of information technology and changes in teleworking patterns through different time eras.

Table 2.1. Evolution of telework in correlation to industrial revolutions.

Period	Characteristics	Remote work
The first Industrial Revolution 	Workers moved from rural to urban dwellings. Mass production.	Work took place at physical employer premises.
The second Industrial Revolution 	Increased use of railway, large scale iron and steel production. Increased use of steam power, telegraph and beginning of electricity.	Work was conducted on or near employer premises. Stationery technologies aimed to reduce employee commuting time.
The thirst Industrial Revolution 	More technological advances i.e., smart grid, renewable energy, Hydro- gen, and other energy storage technology	Emergence of mobile office

The fourth Industrial Revolution 	A combination of the digital, biological, and physical worlds, emergent use of new technologies such as artificial intelligence, cloud computing, robotics, 3D printing, the Internet of Things, advanced wireless technologies, among others	Virtual office whereby work took place anywhere in the world

Adapted from source: (Popkova, Yulia, Ragulina & Bogoviz, 2019:24)

To collaborate Popkova et al., (2019), Baard and Thomas, (2010) suggested that the global expansion of organizational boundaries was a response to the perpetual global competition. Made possible by developments in information and communication technologies, objects and systems that are interconnected, collaborate, and located in different parts of the world (Rudolf et al, 2019). Sako (2021) shared a similar view, but the author emphasized the predicted future impact of the fourth industrial revolution on remote work. Sako (2021:7) stated that "Digital technology of the future, with cloud computing, has much to facilitate such hybrid working. But it will take a lot more than giving employees laptops and broadband connections for "working from anywhere" to take hold".

There was more evidence of this prediction in developed countries compared to the developing economies (Glewwe & Van der Gaag, 2019). This was attributed to disparities noted to exist in telecommunications infrastructure, technological advances, and general standard of living, between developing and developed countries. The comparison was based on the formal classification of developing versus developed countries provided by Tesfom & Lutz (2006). Telework was conventionally done from a home office but through persistent technological advancements, teleworkers have become more mobile. Nowadays work can be done virtually from any location and this resulted in remote workers often referred to as virtual teams (Bosua et al., 2017).

2.5. Conceptual Framework

A conceptual framework or model sets forth the standards to define research questions for appropriate and meaningful answers to be uncovered, analysed, and presented in research findings. The study conceptual framework established a link between the study dependent and independent variables, factors, and other ideologies affecting the structure of the research. The dependent variable is "success" for remote work and independent variables are the proposed critical success factors namely, people, organization, location & environment, and ICTs.

This study developed its own conceptual framework. This was done to offer a backdrop for establishing the justification for research to be undertaken. Preceding frameworks from literature were inputs into the proposed study conceptual model. As highlighted by Bryman (2021) that study of existing theories was crucial in the research fields of information systems and social sciences. Additionally, the developed critical success factors of remote work conceptual framework offered the basis for understanding social processes and interpretation of the study findings (Bryman, 2012). Some of the related theories reviewed to assess their relevance for this research included the Evolution of Telework (Messenger & Gschwind, 2016); the Systems-based conceptual framework for Telework (Campbell & McDonald, 2007); Four factors of telework (Baruch & Nigel, 2021). Re- viewing these theories enabled the study to identify the relevant concepts and the study managed to develop the relevant conceptual framework called "critical success factors of remote work". The proposed conceptual framework allowed this study to produce relevant results.

2.5.1. The Evolution of Telework

An Evaluation Telework conceptual framework created by Messenger and Gschwind (2016) was the first theory reviewed in alignment with the selected study thematic keywords. Through the transition from the home office to the mobile office and virtual office, the framework classified factors of telework (Messenger & Gschwind, 2016). Information technology, communication technology, organization, and location were the key elements noted in the model. The authors proposed each of these factors as essential components for any remote work model to be successful. In line with the four factors of teleworking proposed by Baruch and Nigel (2021), ICTs were seen as a significant remote working enabling factor. In this framework, the progress of telework across three generations from home offices to mobile offices to virtual office was analysed. Figure 2.1 shows evolution of telework and its concepts.

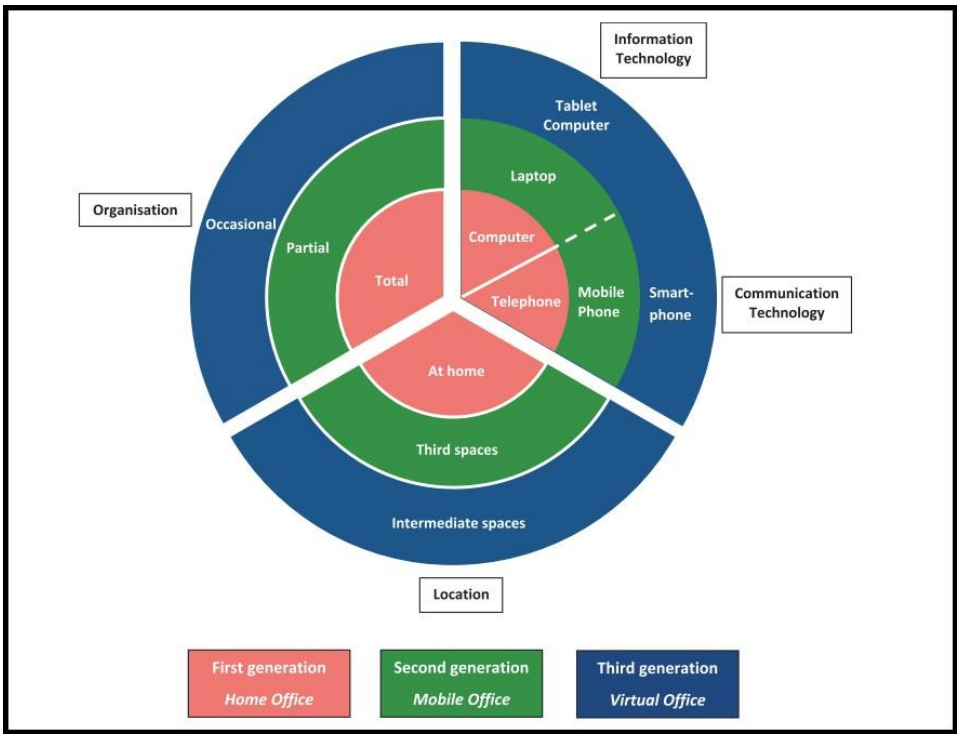


Figure 2.1. A conceptual framework of the Evolution of Telework. Source: Messenger and Gschwind (2016: 203)

This conceptual framework included studies conducted to contrast the "traditional," and “virtual work perspectives. The discussions of the study demonstrated how technological advancements have shaped the different forms of telework, from a historical and the most recent context. Such as remote work using new ICTs outside of the employer's facilities. The Evolution of Telework model illustrated the transformation of remote work definitions over a period. The model provided three components to consider in the evaluation of remote work and these included information and communication technology, location, and organization.

The model by Messenger and Gschwind's (2016) not only reflected the progression of telework into forms over a period, but that telework can be characterized in terms of the three subcategories demonstrated by the model.

The framework did not explicitly include people factors in the graphical illustration but articulated the role of employees and employers throughout discussions of study. A lot of attention was given to the influence of people in the evolution of telework, as one of the crucial elements for the success of telework. Results from Messenger (2019) provided insights on how remote work influenced both individual worker and corporate performance. Resulting in the conclusion that, from the perspectives of both employers and employees, one cannot debate remote work and completely exclude people, that is employers and employees involved in remote work. The findings of this study revealed that the people factor was statistically the strongest predictor of remote work success amongst all other factors hypothesized in the chosen framework. This was despite the exclusion of people in the Evolution of Telework model by Messenger and Gschwind's (2016). People are typically the foundation of any remotely performed work as noted in the Four factors framework that comprises of people as a key element of the model Campbell & McDonald, 2007). Therefore, this rendered the Evolution of telework by Messenger and Gschwind's (2016) inadequate to fully address the research questions and objectives. This study hypothesized people as one of the critical success factors of remote work to be evaluated and included in the conceptual framework. Therefore, an extension to the framework was required to adopt the evolution of remote work. By adding "people" as one of the key elements reflecting on the graphical illustration of the model and focus on it as one of the main independent variables. The framework, however, was still applied in this study to enhance and collaborate findings of other studies that suggested ICTs, organization, location factors as significant drivers of telework success. Therefore, the evolution of telework framework was partially applied in this study, as it addressed three of the four proposed critical success factors of remote work, namely organization, location, and ICTs.

2.5.2 The Systems- Based Conceptual Framework

The systems based telework framework was proposed by Campbell & McDonald (2007) to under- stand telework adoption and use. This framework predated the COVID pandemic period of 2019 to 2022, like the evolution of telework framework suggested by Messenger & Gschwind (2016). This was the first shortfall of both these frameworks. This was because of the underlying setting of voluntary remote work and non-consideration of COVID impact in the discussions (Campbell & McDonald, 2007). The authors suggested a generic view of the framework that comprised of three factors considered critical for telework success. These were teleworked drivers, telework processes, and telework impacts. Each of these were expanded on to provide a comprehensive outlook. The frame- work systematically assessed and critically analysed the three factors to demonstrate how they interoperated and effectively contributed to successful telework (Campbell & McDonald, 2007). Figure 2.2 Illustrates the conceptual framework for telework by Campbell & McDonald (2007).

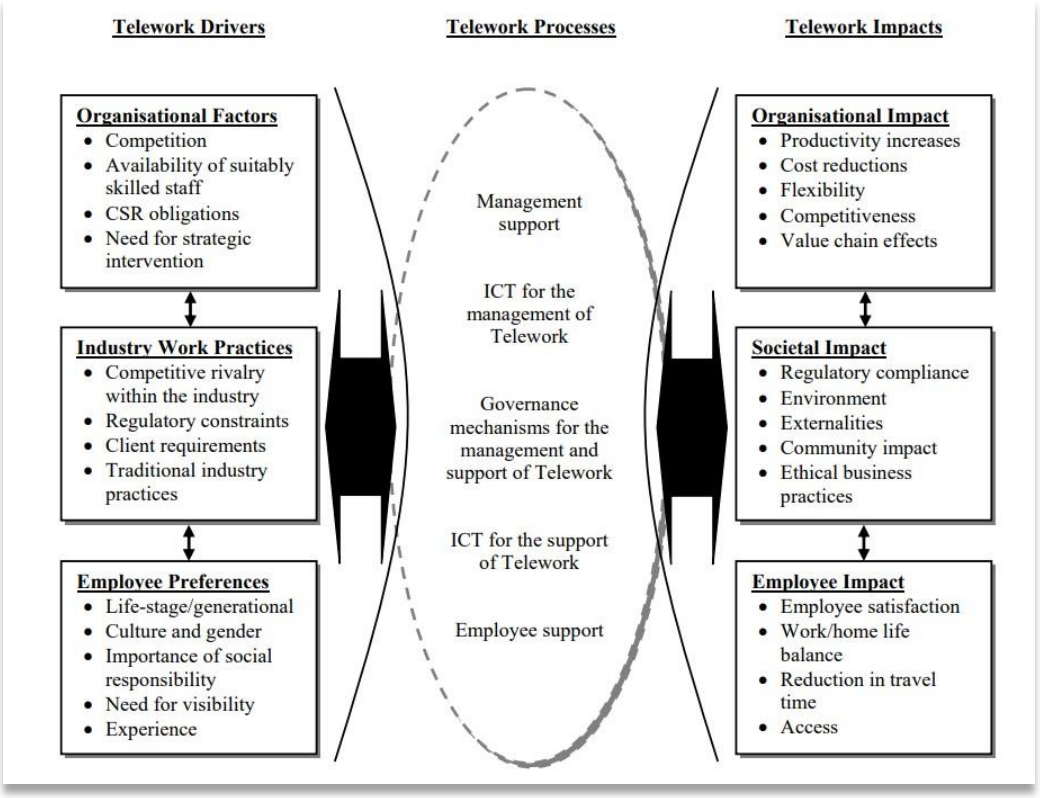


Figure 2.2. Systems-based framework for understanding Telework adoption and use (Campbell & McDonald, 2007)

The conceptual framework illustrated three major ideas that were regarded essential for telework success, these were telework drivers, telework process and telework impacts. The telework drivers came first. According to Campbell and McDonald (2007), telework drivers were seen to bridge industrial domains, internal organizational structures, and employee preferences. As they assessed how each telework driver influenced productive telework, the authors. Additionally, they showed interdependencies with one another to aid in remote collaboration. This collaborated discussions about the interrelationship of ICTs, people, organization, and location factors for achieving remote work success.

Secondly, the systems-based framework was focused on how management and ICT policies supported remote work in the organization (Campbell & McDonald, 2007). Through provision of necessary tools and policies that enabled successful remote work. The findings of the study substantiated the model by demonstrating that management and organizational support have a positive impact on remote work success. The surveyed respondents cited management support and adequate ICT resourced as some of the contributing factors to successful telecommuting.

Lastly, the telework impacts focused on a larger scale of telework factors, including the independent variables of this study i.e., people, ICTs, organization, location & environment and ICTS. Whereas the framework noted three main drivers of telework success as the organizational factors, Employee preferences and Industry work practices that only addressed two out of the four critical success factors of this study objectives. The industry work practices factors would expand the research scope of this project because it did not align to the telework factors contained in the research questions and objectives.

It was for this reason that only the aspects of the framework aligning to the research objectives and thematic keywords were considered in discussions of this report. The full scope of the systems- based framework was not adopted. The theoretical framework covered a different spectrum of re- mote work factors and explored different aspects of the topic by considering telework processes and impact of other additional factors. Which are not addressed in the research objectives of this study. As such, adopting the model in its current form would have required the study approach, objectives, and target population to be revised. This was not feasible due to time and resources constraints faced by the researcher; only applicable components of the framework were considered in this study. The evaluation of critical success factors for remote work was done in a highly specialized department of the financial institution, as time and resources only allowed for those conditions. Therefore, the organizational factors, employee preferences, ICT factors, management support. The next para- graphs outline Four factors conceptual framework reviewed in the literature pertaining to telework work success factors.

2.5.3 Four factors of telework.

Rimias (2021) proposed conceptual framework suggesting four-factors of remote work, to evaluate considerations of success factors of telework pre and post COVID -19 pandemic. The model was an extension of earlier studies done by Baruch (2001), to uncover success determinants of telework. The conceptual framework by Rimias (2021) placed focus on these four factors: individual, the organization, and home & family, as key significant determinants of success for remote workers. The framework described the importance and influence of the telework environment, individual family life and job-related factors on the success of remote work. It further illustrated the interdependent relations amongst all the four factors which were considered critical for successful telecom- muting (Rimias, 2021). The framework examined both the employer and employee perspectives in discussions about remote work success during a pandemic (Rimias, 2021).

Information communication or digital technologies were once again noted as enablers of remote work in this framework. This collaborated the views expressed in Messenger and Gschwind`s (2016) evolution of telework framework. The four-factor highlighted the significance of organizational, people and job factors to be considered in discussions pertaining to successful remote work. So was the wholistic well-being of the remote worker. The model considered the home-work life balance of the re- mote worker, their individual attributes, their surrounding situations and how each of these contributed to their effectiveness during remote work.

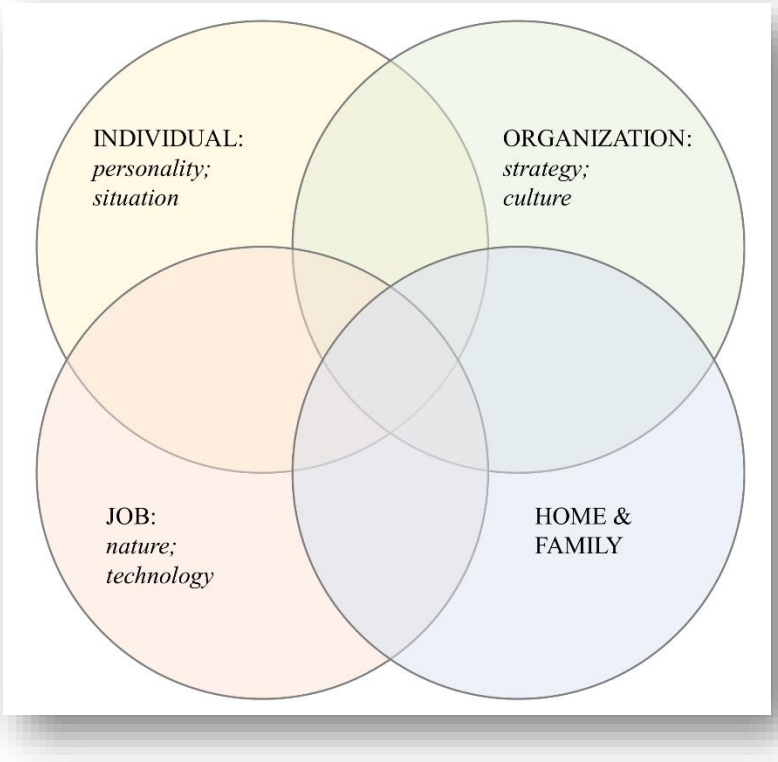


Figure 2.3: Four factors of teleworking (Irimias, 2021: 157)

Therefore, this framework was deemed a suitable reference in this study. As the framework took into consideration voluntary versus mandatory telework circumstances. This conceptual framework was able to provide a contrast to the models discussed earlier in this report, only considered voluntary teleworking (Rimias, 2021). However, limitations noted about this model in reference to study objectives, included the lack to demonstrate whether the location of remote workers had any influence in successful remote working. By successful remote working we refer to the measure of remote worker productivity defined by the employer. The preceding evolution of telework by Messenger and Gschwind's (2016) and systems-based framework by Campbell and McDonald (2007) both considered location as one of the factors of remote work success.

It was stated that location provided the employer with a view of where remote work is taking place to enable future resource planning and remote work policy implementations. For example, knowing the location of remote worker empowered the employer to better plan for social events and in person team meetings. Instead, the framework by Rimias (2021) only provided an ambiguous sub-category under the "individual" fac- tor referred to "situation". Situation herein did not explicitly refer to remote worker physical location nor was it suggested as one of the factors of the model to consider for telework success.

Remote workers in South Africa are generally from diverse socioeconomic statuses. As such, there is inequality and varying degrees to which remote workers have access to resources for remote work. The concluding remarks from Rimias`s (2021) research on considerations on telework before and during COVID-19 pandemic, indicated a need for further research studies. To determine effectiveness of remote organizations in a post COVID world. Based on different circumstances and challenges that each time frame presented for remote workers and organizations.

Therefore, this conceptual framework did not align fully to the objectives of this study. As the first research objective determine if people, organization, ICTs, location, and environment had an impact on the success of remote working for bank employees in Gauteng, South Africa.

The model Four-factors model excluded the environment and location aspects of remote workers, as a consideration for telework success. This was rectified by integrating applicable and common themes of the three assessed conceptual frameworks about factors of telework success, to frame a new conceptual model that closely aligned to the aims of this study. One of which was to determine the impact of all hypothesized critical success factors of remote work, these are namely people, organization, ICTS and location & environment. The model by Rimias (2021) excluded location and environment. Furthermore, the study that produced the Four Factors of Teleworking conceptual model was carried out in Romain. The context of the study was therefore not applicable to a South African environment. This is because Romania is a first world country and South Africa a third world country, with presumably contrasting labour markets. The different contexts in which this research and Rimias (2021) study were conducted, directly affects the environment and location critical success factors of remote work. The exclusion of environmental and location factors on the Four Factors model rendered it partially applicable and unsatisfactory, but influential in the evaluation of critical success factors of telework from a South African perspective. It was however commendable for the author to consider both the employer and employee perspectives when assessing success factors of remote work in their proposed conceptual framework.

This demonstrated the interdependence between these two factors, as one of the key drivers of success for telecommuting. The interdependency between all the suggested remote work factors in the Four- factors model collaborated ideas presented in the evolution of telework and systems-based telework frameworks. After reviewing the three theories, a new conceptual framework was proposed for meeting objectives of this study. The next paragraphs discuss the developed Critical success factors of remote work framework.

2.6. Critical success factors of Remote work

The common themes from the telework frameworks that were covered earlier in the chapter were combined to create the suggested conceptual framework. The developed framework was derived from literature. The pre- and post-COVID periods served as the basis for the framework's construct. The three previously mentioned conceptual frameworks i.e. The Evolution of Telework, Systems-Based Framework and Four Factors of Telework were used as the foundation for the concepts' propositions. Telework was required during the pandemic because workers had to stay at home due to COVID restrictions, that caused social isolation. When the pandemic was later deemed not to be a life-threatening emergency, the regulations were gradually lifted. The results from the analysed and tested questionnaire responses further validated the conceptual framework. To ascertain objectivity in addressing the research objectives and questions, the survey results were analysed and put to the test and results thereof presented in later chapters of this report.

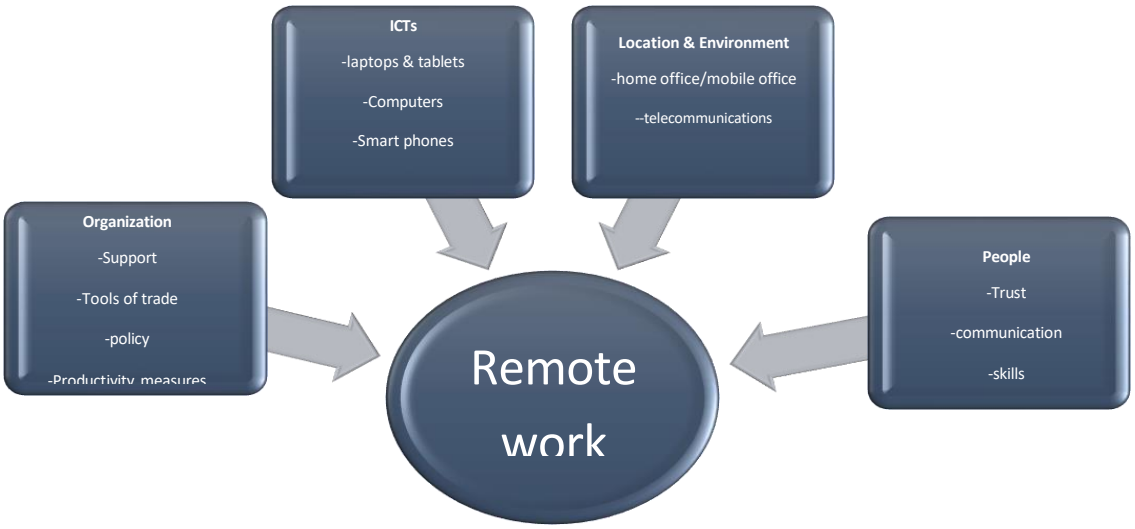


Figure 2.4. Critical success factors of remote work (Source: Author).

In favor of remote working success, four concepts for crucial success factors are shown in Figure 2.4. The study defined and examined the application of all proposed critical success factors, including organizational factors, people factors, location and environment factors, and ICT factors. The subsequent paragraphs provide discussions on the perceived impact of each of the critical success factors illustrated by the model.

2.6.1 Organization Factors

Remote work is essentially done for or on behalf of an organization. It is therefore vital to discuss the implications of remote work from the viewpoint of the employer. Bosua et al., (2017) suggested that organizations benefitted from saving on real estate costs, such as electricity bills and so forth, by working remotely. Remote working also proved beneficial to organizations during the COVID- 19 pandemic (Kazi Turin Rahman & Arif, 2020). By enabling business continuity when the unforeseen natural disaster forced workers to move from office to home locations to continue working remotely. This created a general impression for many organizations that remote work was beneficial to employers and employees. Bérastégui (2021) mentioned that trust between the employer and employee is one of the success factors of remote work guidelines. In his analysis of the transition from office to home base work as an aftermath of COVID-19, the author highlighted trust to under- pin the success of remote organizations (Bérastégui, 2021).

Bérastégui (2021) further suggested that matured telework organizations were less concerned about trust and more concerned about outputs from remoter workers. This was evident in the outcomes of his research as it showed a positive relationship between overall productivity of employees and remote work.

This collaborated findings from other literature on the topic of remote work and employee productivity. Bosua et al., (2017) were some of the authors that attributed increased remote worker productivity to lower rates of absenteeism when working remotely. The authors further acknowledged the challenge of measuring productivity of remote workers (Bosua et al.,2017). Their study accentuated the significance of organizational support for remote work success and to keep remote workers motivated and productive. By creating a conducive remote work culture, proving sufficient ICT collaboration tools, prioritizing the well-being of teleworkers by providing life and work balance, eradicating micromanagement of remote work (Mullins, Scutelnicu & Charbonneau, 2022). These were some of the examples provided to demonstrate how organizations offered support to remote workers to ensure that both the organization and remote workers yield positive outcomes from telework. Bosua et al., (2017) also observed from their research that employers that exerted excessive control and micromanagement over remote teams posed a risk to the success of remote work. Likewise, employees that lacked the disciple to self-organize and manage themselves in remote work posed a risk to the success of the endeavour (Bosua et al.,2017).

Another study on remote work highlighted that not only was remote work beneficial to employees and organization, but the economy, society, and environment at large (Gohoungodji, N'Dri, & Ma- tos, 2022). This supported the ideas expressed in the systems-based telework model by Campbell and McDonald (2007). Gohoungodji et al., (2022) stated that remote work benefited the economy by increasing a competitive advantage because it added value to profits and promoted global competitiveness across industries.

The overlap between people and organizational factors is important to note. Either factor cannot have an impact on remote work in isolation. As the organization is made up of people and such, without people remote work for the organization would not be needed. In the same way that remote workers perform work for the organization which employees them. Such as the surveyed remote working employees of the financial institution for this study.

However, the evaluation outcomes indicated that people factors have a higher significance to the success of remote work that the organizational factors. The discussion on impact of organizational impact on remote work success was instrumental in determining employee preference between office-based and remote work. Emphasis was placed on the "why" during the investigations. To understand the underlying motives and reasons for employee preferences. So that the key factors driving the choice can be extrapolated and encompassed in the research findings, documented in chapter four and five. The paragraphs that follow unpack findings from literature regarding the influence people apply on the success of remote work success.

2.6.2 People Factors

Other researchers who conducted studies on remote work such as Quade (2022), placed emphasis on the complexity of managing dispersed teams. The authors highlighted potential management challenges such as providing essential technological support and skills development for remote workers (Quade, 2022). To address these kinds of challenges, literature from other scholars of telework recommended collaboration between virtual teams and supervisors through communication mediums as a driving force for achieving project goals (Almendingen, Skotheim, & Magnus, 2023). Team dispersion was classified as temporary or permanent, based on the types of software delivery methodology followed in the organization. Organizations apply different options of project delivery for remote working teams (Downes, Daellenbach & Donnelly, 2023). For example, Agile projects follow short term and iterative delivery cycles. Contrary to the traditional waterfall approach that delivers the full solution in one ago and over a longer period.

Communication in Agile or Waterfall project delivery is typically conducted using formal and informal channels (Samli, Gupta, Sharma, Hooda & Bhatia, 2023). Instant messaging apps like WhatsApp and Google chat are often categorized as informal communication channels, whereas Microsoft Teams, Skype for business is more formal. The selection criteria for a communication medium are based on a combination of factors. These often include, project attributes, security features, accessibility, costs, operational support, usability of the medium and so forth.

Another theme that dominated the literature on telework regarding the people aspects was the differences in geographical locations, time-zones, culture of remote workers. These were observed to lead to lack of team engagement, feelings of isolation and general distrust among team members (Karis, Wildman, & Mané, 2016). The dispersion of teams was noted to create miscommunication and misalignment in remote teams. Subsequently causing loss in hours of productivity as teams wasted time in alignment meetings to clear miscommunications (Karis et al., 2016). The authors further stated that such challenges were less prevalent for co-located teams.

Some of the departments in the bank were made up by diverse remote working teams, operating from different countries and continents. For example, the organization had cross functional teams from countries such as India, South Africa, Mauritius, Zambia, Germany, and many others. Each jurisdiction adhered to its own social norms, culture, regulations, processes and so forth. However, employees from all those places were often required to collaborate remotely in projects to achieve objectives of the bank and deliver value to clients (Bhat, AlQahtani, & Nekovee, 2023). This meant that the bank had established a unanimous organizational culture to bridge probable gaps that presented a risk to effective remote work (Arslanoglu, Moro, Tonetto, De Nisi, Ambruzzi, Biasini & Bertino, 2023).

Furthermore, people became a critical factor to consider under the COVID 19 restrictions, as the world was faced with a multi-faceted health crisis that presented a threat to the health of remote workers, and as such they had to move from office to home locations to minimize risks. Remote workers were also expected to function and display resilience before and post the COVID period. Therefore, the critical success factor for remote working conceptual framework was adequate in determining critical success factors of remote work. The adopted model enabled the study to provide answers to the research objectives of determining whether people, organization, ICTs, location, and environment had an impact on the success of remote work for bank employees in Gauteng, South Africa. Some of the elements of the people factors that drive remote work success, as recommended by the literature reviewed are discussed in subsequent paragraphs.

2.6.2.1 In person meetings

Teams that collaborate remotely on a full-time basis sometimes felt the need for in person interactions. Video conferencing is often used to simulate face-to-face meeting. However, Karis et al., (2016) discovered that initial face-to-face meetings enhanced subsequent online interactions. The authors suggested that it was easier to create rapport with colleagues after meeting them in person first (Karis et al., 2016). The use of electronic mediums to communicate and collaborate with team members sometimes created delays in the process of project delivery. This is where office-based work showed an advantage. For example, getting feedback on a work-related query from a colleague seated next to you is likely to take a shorter time than waiting for an instant messaging or email response.

Some scholars of remote work indicated that remote workers often cited social isolation as one of the telework pitfalls (Kildiushova, 2021). For instance, the findings suggested that sometimes employees wanted to discuss topics unrelated to work to recharge and refocus their thoughts, when work became overwhelming. Thus, emphasizing the importance of creating remote work policies that catered for social or personal contact for remote workers. The study findings demonstrated that people were the most effective predictors of remote work success. Therefore, dispersed teams require an organizational culture of inclusion, that mitigates the risk of social isolation but promotes collaborations for successful remote work.

2.6.2.2. Organizational and Management support

Developing the technical and subject matter skills of remote workers is one form of support that teleworking organizations can provide to improve the collaboration and effectiveness of geographically dispersed teams. Support for remote workers included their access to the relevant tools of trade and technologies for conducting work remotely. Management and operational support from the organization were addressed by section two of the questionnaire instrument, to determine whether the organization under study provided sufficient management and ICT support to promote telework success. Some of the studies indicated that when management set extremely high expectations for remote workers, the teleworker home-work life balance was disrupted, and subsequently caused job related stress (Sablock, 2022). Therefore, Sablock (2022) advised organizations to promote a balance between home and work life of the remote worker. The author further wrote that under the right circumstances, remote work generally enriched the work and home life of remote workers and increased the will to work. Therefore, recommending that the homework life balance information be obtained from employees during performance review and feedback sessions with employers (Sablock, 2022). However, honest communication and trust between the employer and employee was a prerequisite. The next paragraphs provide an elaborate discussion on trust as of the key elements to consider in the evaluation of people as a critical success factor for remote work.

4.6.5. Common trust and understanding

Kildiushova (2021) classified trust as either cognitive or effective in his study about building trust in virtual teams. Cognitive trust was said to focus on competency assessment, reliability, integrity, functional abilities, and skills of another party. Whereas effective trust was regarded as built over time when an emotional relation was established with another party (Kildiushova, 2021). The author advised that miscommunication and misunderstanding occurred when remote employees were unable to observe each other. As well as that cultural and language diversity of remote teams intensified trust issues. This was because such differences created room for assumptions and misinterpretation of communication, context of each team member, and influences for their project contributions.

Clear, authentic, consistent, and continuous communication was recommended by Nyberg, Shaw, and Zhu (2021) for organizations to address trust issues. Agile project delivery practiced by the bank enabled this through framework ceremonies such as daily stand-up, frequent planning, and retrospective meetings of each delivery cycle. The meetings gave remote teams opportunities for frequent collaboration meetings. Then trust was established, and they defined their internal communication mediums and styles.

Nyberg et al., (2021) cautioned remote working organizations from enforcing only one way, top-down communication approaches instead of two-directional communication strategies. By encouraging knowledge sharing and transfer between remote working teams to create healthy competitive remote work cultures. A health culture was considered as one where people felt heard and included in key project discussions, activities and decision making. So that they became less resistant to collaborate with others. Consequently, strong networks and stakeholder relations were created to propel the remote working organization forward.

Trust and team cohesion is built when team members consistently honour telework commitments (Nyberg et al., 2021). The outcomes of this study indicated that teleworkers felt supported by the organization and their managers during remote work. Trust grew when minimal supervision and monitoring of remote workers by leaders was needed. Self-efficacy not only promoted trust amongst team members but increased employee confidence and trust in themselves. ICT collaboration tools with video capabilities were noted improve trust between teleworkers because they provided visual connection for dispersed employees, but the next paragraphs will expand on that (Karis, et al., 2016).

2.6.2.3 Collaboration tools with video capabilities

Collaboration tools that offer video capabilities allow remote workers to simulate face-to-face discussions and see one another. Video conferencing tools enabled virtual teams to not only rely on verbal communication, but also non-verbal communication (Karis, et al.,2016). Video communication mediums show the body language of participants, such as facial expressions, body posture, hand gestures and so forth. All which enhances the communication process by ensuring that the message communicated is clear, received by the audience and feedback is provided. Karis, et al, (2016) emphasized that teams that shared similar past experiences, same vocabulary and common goals stood a greater chance of succeeding in a remote work setting. However, personal contact remained an important aspect for remote working teams, even when applied to a minimal scale. As it helped to establish context and build trust between remote employees. Therefore, organizations should consider flexible remote work schedules when adapting to post-COVID telework policies. To ensure that all employee preferences are considered as some may still prefer office commute and face-to-face interactions. Flexible remote work models offered a bridged between full-time office commuting and full-time remote work (Jarvenpaa & Välikangas, 2020). This is discussed in the next paragraph.

2.6.2.4 Flexible work arrangements

Allowing flexibility for remote workers meant giving them autonomy to self-organize and self-manage their own schedules and productivity. For example, conventional office work stipulates strict physical presence and standard hours to start and finish working. Whereas in remote-work environments work hours are loosely enforced. Remote work is often done in the personal space of workers, and this causes an overlap between work and personal life of the remote worker (Jarvenpaa & Välikangas, 2020).

Research on telework suggested that many employees appreciated remote work and the flexibility it offered them (Jarvenpaa & Välikangas, 2020). Whereby time is rationed between office commuting and remote such as that teleworkers collaborate with co-workers and met their performance goals and project goals.

For example, the bank employees that participated in this study worked in hybrid telecommuting environment. They were expected to commute to the office in certain days of the month and worked remotely for the rest of the time. The schedules varied across departments at the institution where the study was conducted.

Self-efficacy of teleworker enforces accountability and responsibility for individual and team delivery (Kildiushova, 2021). Literature suggested that it can be used to achieve remote work success when employees are empowered by management support, have flexible remote scheduled and operate in environments with common trust and understanding. Section two, item number 5 of the research questionnaire addressed remote employee perceptions on the degree of support offered by the bank. Section five spoke to employee preferences between full-time office work and full-time remote work. Outcomes of the survey are documented in chapter four. The type of remote work model implemented in organization is informed by its culture (Nyberg et al., 2021).

2.6.2.6 Inclusive culture

Bennett, Campion, Keeler, & Keener (2021) advised that it was easier to enforce organizational mission statement, values, and corporate culture for co-located teams, than for virtual teams. Electronic messages through video or text platforms were often perceived less impactful than face-to-face interactions.

Nyberg and co-authors (2021) quoted Schneider on his 1987 description on organizational dynamics, where he placed emphasis on the centrality of individuals in the functioning of organizations. This was further explained to mean that people are what made any organization function effectively (Nyberg, et al., 2021). This highlighted the importance of creating a conducive culture, that embraced uniqueness and diverse nature of the individuals in dispersed teams.

Organizations were challenged to create a culture that considered all these differences and made them cohesively exist for their fundamental remote work success. It was suggested that this can be attained through the deconstruction of organizational control (Errichiello & Pianese, 2016). Organizational control was de- scribed by Errichiello & Pianese (2016) as the system that aligned employees' capabilities, activities and performances to organizational objectives and goals. The concept of deconstructing control in the telecom- muting perspective referred to a process whereby control was not solely a function of the organization or management, but employees too (Errichiello & Pianese, 2016). As this placed the accountability of achieving acceptable performance and productivity at the control of remote employees as well.

When all remote team members were collectively working toward achieving the same goals, they had to trust and rely on each other. This created a culture that embraced diversity and promoted inclusion, to influence the success of remote work. There was consensus in literature that culture of inclusion removes factions, employee isolation and mistrust in geographically dispersed teams. Therefore, IT managers were advised to intentionally and proactively implement measures to create a non-toxic remote working culture, that is inclusive and does not negatively affect remote workers nor reduce organizational performance.

2.6.3 Location and Environmental Factors

Traditional forms of telework were not pandemic induced and allowed employees the flexibility of working from anywhere. In contrast to remote work done under strict COVID-19- regulations, whereby employees were limited in movement. Remote employees were forced to telecommute from home locations (Carillo, 2021). As the COVID regulations required all citizens to socially distance. There was lack of prior planning from both employers and employees for full time telecommuting, as it was enforced during the worldwide lockdowns (Carillo, 2021). The diverse socioeconomic classes of the labour force in South Africa required organizations to consider policies that will ensure conducive environments for telework. This implied that management support was crucial for remote workers with varying socioeconomic statuses because the areas in which remote workers were situated could potentially impact their ability to access telework resources. Resources such as the uninterrupted supply of electricity, telecommunication infrastructure and ICT tools, and so forth, for successful remote work. Due to the underlying inequalities of the labour market. The paragraphs that follow will discuss some of the elements that influence successful remote work, from the location and environment perspective. These include access to network connectivity facilitated through telecommunications, travel time and costs, and employee well-being. The latter being a result of a balance between work and home life.

2.6.3.1 Telecommunications

It is well known that South Africa is currently having an electricity crisis that started in the mid-2000s, where the demand is reported to exceed supply from the main electricity supplier (Rakotonirainy, Durbach, & Nyirenda, 2019). This is a result of the monopoly market in which Eskom operates, to provide conventional electricity products to citizens. The monopoly gives Eskom as the only state-owned entity, full control over the supply of electricity for the whole country (Rakotonirainy et al., 2019). The post-apartheid regulations that enabled provisioning of free electricity to previously disadvantaged communities as per the free basic electricity introduced in 2001, further amplified the shortage of power supply. South Africa is a third world country characterized by income inequality. This has led to unequal access to basic resources for citizens, such as electricity, and ultimately some digital resources needed for remote work. Rakotonirainy et al., (2019) explained that the electricity supplying utility schedules frequent power cuts to maintain old power units, stabilize the grid, reserve, and ration the available supply of electricity. All of which are aimed to circumvent the shortages. These power cuts are imposed across all South African com- munities to control power supply and avoid system collapse and commonly known as “loadshedding” (Rakotonirainy, et al 2019). In addition to the scheduled power outages that relieve pressure and stabilize the grid, there are also unplanned power cuts. The unplanned outages are predominantly due to the system tripping from any of the following: excessive illegal connections, cable theft, vandalism and so forth.

Ofetotse, Essah, & Yao (2021) argued that unplanned electricity outages were more prevalent in locations with a high number of informal dwellings and rural areas. These types of outages were harder to proactively plan for and manage because of their arbitrary nature. They were presumed more likely to have a higher negative impact on remote workers from poor socio-economic backgrounds (Ofetotse, et al., 2021). Remote workers with unfavourable living conditions that render minimal access to basic service. Both planned and unplanned power outages have an impact on remote work for employees that solely rely on the public sector provisioned electricity. As power outages have a direct impact on the availability and accessibility of telecommunication networks by remote workers. The telecommunications core network links and infrastructure are often powered by electricity provided by the monopoly market.

"Telecommunication infrastructure consists of both the telecommunication media used to transmit information such as phone lines, fibre-optic cables, satellites, and microwave systems and the media used as input/output devices such as telephones, video cameras, monitors, fax machines, and computer that are needed to send and receive data. One set of media cannot be used without the other, but various combinations of use are possible" (Hovenga, Hovel, Klotz, & Robins, 1998: 271). Telecommunication technologies that enable remote work such as trunk transmission, switching, mobile telecommunication systems, digital and data networks, input, and output devices, etc., all require uninterrupted electricity supply. For remote workers to collaborate and successfully telework.

The ability of employees to continue working remotely during a scheduled or unplanned power outages became their prerogative. In some instances, employers were able to provide support based on effective remote work policies agreed with the employee. Though, the socioeconomic class of the remote worker considerably influences their access to good connectivity (Ofetotse, et al., 2021). The location where remote work is conducted was either conducive or stressful for the remote worker. Based on location of remote worker dwelling and their access to electricity and telecommunication resources, outside the employer premises. Unless if the remote worker had sufficient income for alternative electricity sources during planned and unplanned power outages. To maintain uninterrupted network connectivity and affordability to create a dedicated workspace at home.

Data was collected from research participants and analysed to ascertain the impact of employee location on the success of remote work. So that other ICT organizations that are planning to implement or retain permanent remote and hybrid working policies can gather insights from the results of the study, presented in chapter four.

2.6.3.2. Travelling costs

Kashani, Najafbagy and Mirsepasi (2016) considered traffic reduction, energy saving and less environmental pollution as some of the social and economic benefits of remote work. The authors suggested that the cost of office commute expanded beyond monetary resources committed for the actual journey to the office. By noting the additional intangible losses incurred by office commute. Sweet (2011) also mentioned time as one example of an intangible loss. By stating that hours were sometimes wasted in traffic congested routes for commuting workers. He added that time spent idling in traffic congestion subsequently influenced employee productivity for the day. Since the time spend in travel or wasted in traffic congestion often equated to lost number of productive hours for the employees (Sweet, 2011). This was construed to be true for the South African labour force. Given the country`s lack of adequate public transport and travel, as a developing economy.

2.6.3.2 Home vs work-life balance

Remote work generally occurred at the residential dwelling or household of the employee. A household was described by Statistics South Africa (Stats SA) (2018) as a group of individuals who live together in the same house or the same yard. As opposed to the general definition of family. Related family members may live in different locations (Stats SA, 2018). There is a higher likelihood of distractions for remote workers when there are several household occupants during remote work. When considering the number of household occupants, one must factor in the exclusivity and size of the remote workspace within the household to determine whether it has a positive or negative impact on the teleworking employee.

Findings by Bosua et al., **(**2017) suggested that teleworkers were less stressed because of minimal interruptions experienced when working from home since other household members were also working or supportive of the remote work taking place in the home. These outcomes were from a study the authors conducted to assess the impact of remote work on employee productivity and wellbeing.

The authors further stated that flexibility and a sense of autonomy over work made teleworkers more productive (Bosua et al., 2017). Scholars of telework generally support research outcomes that suggest a positive relation between remote work and productivity of telecommuters.

Manko & Rosiński (2021) expanded on the same sentiments by adding that remote workers were productive only when a balance between home and work life was attained, through appropriately managed boundaries between home and work life. Both the studies by Bosua et al., (2017) and Manko & Rosiński (2021) agreed that remote work enabled autonomy through isolation and therefore improved the performance and wellbeing of workers.

The research was conducted to assess the impact of telework on employee productivity and well-being (Bosua et al., 2017). The findings demonstrated interrelated elements considered for telework success from the perspective of employee well-being. It suggested that individual telework autonomy, employee commitment, and organizational supports, conducive work environment, ICT support all contributed positively to the overall well-being and productivity of remote workers. However, some scholars of telework research suggested that isolation reduced the productivity of teleworkers. For example, Sarginson (2020) stated that remote work sometimes resulted in reduced collaboration, loss of creativity, and productivity of remote workers.

Other scholars argued that senior management and supervisory roles perceived a higher productivity from subordinates that had teleworked prior COVID, in comparison to those workers that only started remote work during COVID (Choudhury, Foroughi, Larson, 2021). Furthermore, certain roles such as that of field engineers and technicians still required employees to work from premises of the employer. Another negative aspect of remote work was put forward by Messenger (2019), was that telework was sometimes invasive into the times and spaces reserved for the personal life of employees. It was additionally said that remote work sometimes blurred the boundaries between home and work life of the worker. Remote workers were therefore advised to practice detaching from work activities beyond typical office hours, when working from their home spaces (Messenger, 2019).

It is apparent that a combination of factors determined whether remote workers were more productive working from home than at the office. Literature suggested that the socioeconomic status and location of remote workers were crucial aspects to consider for successful telework (Yikilmaz, 2023). Moreover, individual worker demographics, number or minor children, number of household occupants where work was done, marital status, type and position of occupation, seniority of position held and so forth, all had a significant influence on the perceived productivity of remote workers. A precise combination of some or all these factors needed further analysis to determine the actual impact of remote work effectiveness on productivity of individual employees. Even though there were conflicting views and lack of in-depth studies in the topic of telework. To truly ascertain actual impact of remote work on productivity, many scholars supported the proposition that a balance between home and work life con- tributed to the success of remote work (Samtharam & Baskaran, 2023).

2.6.4 Information Communication Technology (ICT) Factors

According to a review of the literature about telework (Carillo et al., 2020), there was a high correlation between ICTs and distant work. But this study looked at whether ICTs were reliable indicators of successful remote employment. ICTs and "Digital technologies" are terms that some academics have used interchangeably to refer to a wide variety of tools, systems, and technologies, including social media, mobile devices, and the cloud (Quade, 2022).

Baker, Moon, and Ward (2006) described ICTs as not only a means of communication but one of work reconfiguration. This perspective implied that there was restructuring of the way of working during remote work through collaboration using ICTs (Baker, et al., 2006). This essentially translated to human-computer interaction identified as one of the fundamental requirements for successful remote working. This made ICTs and digital technologies a significant aspect in discussions about remote work because they provide this human-computer interaction alternative to face-to-face communication.

ICTs provide communication mediums that enable workers to collaborate and communicate when working remotely. Messenger (2019) shared the same sentiments, published in his research work on the evolutionary perspective of Telework in the 21st century. The author not only demonstrated that ICTs are enablers for remote but suggested a decline in ICT device cost and size, over the course of industrial revolutions. ICTs devices typically include laptops, tablets, and smartphones and the dispersion of the internet and world wide web access (Messenger, 2019). To support the belief that ICTs serve as enablement of remote work, Abulibdeh (2020) also emphasized the importance of information communication technologies as one of the critical success factors of telework.

It is important that communication devices and network access for remote workers are secured, and sensitive organizational data is protected (Sarginson, 2020). Best practices of remote work recommend that all devices used for remote work, whether they belong to the organization, or the employee should adhere to cyber security policies set by the organization. Sarginson (2020) suggested that dispersed workers of an organization required implementation of decentralized security measures for ICT devices and communication tools that enabled remote work.

There was evidence suggesting that phishing attacks increased during the pandemic period. The evidence was documented in the investigative study by Sarginson (2020), on security measures for remote workers against phishing attacks. This provided an example to some of the security considerations in the selection of appropriate collaboration tools for remote workers. Ferguson & Huston (1998) stated that it was common practice for organization to regulate access communication devices and collaboration tools with remote access Virtual Private Network (VPN) clients. VPNs allow employee access to organizations VPN gateway to securely access the organizations internal private networks and data.

“A VPN is a communications environment in which access is controlled to permit peer connections only within a defined community of interest and is constructed though some form of partitioning of a common underlying communications medium, where this underlying communications medium provides services to the network on a non-exclusive basis” (Ferguson & Huston,1998:3).

The significance of ICTs as enablers of remote work was one of the common themes on telework studies reviewed. It was evident when organizations were forced to abruptly move from office based to remote work due to the COVID pandemic. Employees were required to work from home because of sudden lock- downs globally imposed by governments, including South Africa (Carillo et al., 2020). Organizations that deployed appropriate ICTs tools, protocols, and security measures immediately for workers to move from office-based to home-based work arrangements, were able to maintain operations during the pandemic. Organizations are now faced with a decision to either go back to full time office commuting or continue with part-time or full-time remote work models. This means re-evaluating current ICT technologies to align to long-term strategies on remote work. The research outcomes in chapter four highlight elements of ICTs that employees regarded as a critical contributor to the overall success of remote work. This enabled this study to seek and provide answers to the objective of determining the aspects of people, the organization, ICTs, location, and environment, having an impact on the success of telework for bank employees in Gauteng, South Africa.

2.7 Summary

In chapter two, the literature that has already been written about the research topic of remote work was reviewed in terms of what employers and employees' thought were essential success elements thereof. The evolution of remote labor through many revolutionary eras was briefly summarized. Comparing and discussing the conceptual frameworks that served as the foundation for some of the literature research on remote labor. A general model for critical success factors of remote work was developed and adopted for this study, using applicable strengths noted from the referenced frameworks found in the literature. Additionally, a literature analysis on how employees perceive the effects of remote work on their own productivity was included in this chapter. The chapter was concluded by highlighting some of the literature findings on employee preferences between office-based and remote work.

Chapter Three - Research Methodology

3.1 Introduction

This chapter discusses research methodology, unpacks topics about relevant philosophy of science in general, and particularly in an Information Systems (IS) context, where this research is located. Chapter three also includes methodological issues such as research design, approaches, research population, sample and sampling, data collection, data sources, and the ethical consideration perspectives. The methodology and instruments were informed by the research design, purpose of the study, sample representatives of the target population and time constraints. To create knowledge from outcomes of the evaluation of critical success factors of remote work, as perceived by remote workers of one of the big South African banks.

This study was guided by research onion (Saunders, 2007) as it provided an overview of the link between research paradigms, methodology and design (Phair & Warren, 2021). The diagram framed the subsequent discussions on this chapter by illustrating components applicable to this this study, as indicated by the figure 3.1.

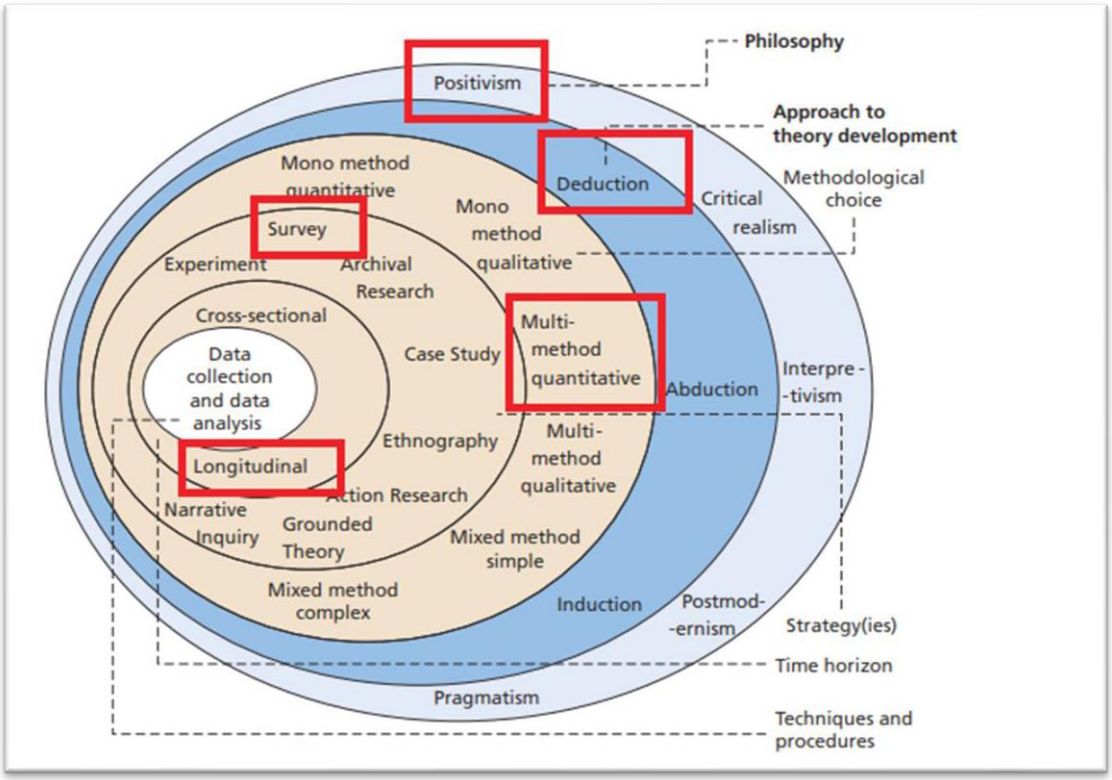


Figure 3.1. The research onion highlighting chosen philosophy and approach Source: Saunders, Lewis, Thornhill & Bristow (2015).

3.2 Research Philosophy

A research paradigm is a component of the study's methodology. Research paradigms provide principles and understanding that are shared across subject matter experts in the same field, allowing one to perform research studies without relying on his own philosophical expertise and biases (Rahi, 2017). According to an article authored by Rahi (2017), discussing research techniques, research paradigms are a collection of shared beliefs and agreements held by scientists regarding how problems should be understood and solved in research. Research paradigms therefore provide the theoretical or philosophical basis for research investigations (Gray, 2014). Literature provided various paradigms to consider when framing the study to meet its objectives. The next paragraphs provide a discussion on some of the philosophies that were considered for the study. Together with the justification for the selected philosophy under- pinning the research to determine critical success factors of remote work, determine employee perceptions on productivity when teleworking and determine employee preferences between remote and office work.

3.2.1. Ontology

The ontology philosophy was described as the science of being, which examines the nature of reality (BRM Blog, 2022). This philosophy was thought to be more interested in the "what" and "how" of knowledge, to enable a revelation of reality and our comprehension of the knowledge. For instance, ontology investigates whether reality is, in fact, a single, objective item or whether it differs for everyone (Phair & Warren, 2021). This philosophy was not aligned this investigative study assessing critical success factors of remote work success, as the data collected demonstrated employee perceptions and not true reality of their remote working.

3.2.2 Epistemology

Epistemology refers to the ‘nature of knowledge’, that is, ‘how we can know about or understand the object of knowledge’ (Birks, 2014). The two main epistemological orientations are positivist epistemology which assumes that exact objectivity is achievable by separating the researcher from the subjects to minimize bias and enhance the generalizability of results (Wildemuth, 1993; Fitzgerald & Howcroft, 1998), and interpretive epistemology which perceives contextual knowledge about the research phenomenon as a product of intersubjective interaction between the investigator and the informants (Guba & Lincoln, 1994; Walsham, 2006).

The definition of epistemology by Godwin et al (2021:17) stated that "Epistemology refers to beliefs about knowledge and how knowledge is constructed."

This theory of knowledge is concerned with where and how knowledge is collected, to put it simply. According to epistemologists, the researcher's knowledge and worldview have a significant impact on how they perceive the findings (Godwin et al., 2021). Therefore, it is advised that a researcher make their philosophical stance public at the outset of their study activity when choosing the epistemology philosophy. This is the philosophy selected to frame this study, based on study objectives, which were looking to create knowledge in the field of remote work. This was achieved by applying quantitative methods on each hypothesized critical success factor or remote work.

3.2.3. Axiology

Axiology was defined as an attempt to unify various discussions of values, covering a broad range of critical analysis and debate, including truth, utility, goodness, beauty, appropriate behavior, and duty (Given, 2008). Axiology philosophy, according to Yilmaz (2013), is an approach that looks at value and valuation. It does so by posing queries regarding the nature, classes, and types of valuable goods. Axiology was found not suitable for study objectives of this study. Due to the limited sample and period in which the study was completed.

3.2.4 Positivism

Positivism is based on the gathering of knowledge based on observation and experiment. It is also referred to as quantitative research. The authors Gray (2014), O'Gorman & Macintosh (2015) offered their own descriptions of the different research philosophies. They argued that that positivism assessed research data objectively as it moved through hypothesis and deductions. It is a quantitative research methodology with a high degree of generalisability. It was suggested that in the field of Information Systems, researchers generally showed a preference for positivism (Mkansi & Acheampong, 2012).

This led to the selection of a quantitative post-positivism research approach to evaluate critical success factors of remote work from an employer and employee perspectives. This elected research methodology provided a middle ground between the extreme opposing ends of positivism and interpretivism. Post-positivism research assumes that a social reality is already existing, and it has enough steadiness and modeling to be recognized (Phair & Warren, 2021). The study evaluated telework impact on ICT workers from various socioeconomic classes, pre and post the COVID period. This was done using quantitative methods.

Post-positivism assumed that realism can be known within some level of certainty. It is a category of epistemology, a popular approach for research of social sciences (Godwin et al., 2021:16). Post-positivism expands from positivism, which has narrow views that focuses on what can be measured and observed when producing knowledge. Human error and perspective were allowed by post-positivism, whilst also applying objective measurement and observation for research outcomes. This study intended to determine averages and trends from the collected and analysed data, so that results can be generalized to the wider population of remote workers of the target population, from the bank where the survey was conducted.

3.3 Research reasoning

The research approach provided an overview of methods used for this research project. It was a significant aspect of the study because it provided guidance on data collection and analysis methods. The fundamental objectives of the study informed the choice of research approach. The reviewed literature about research methodology offered two options to select from, and these were inductive, and deductive approaches.

3.3.1 Inductive reasoning

This approach was said to create theories from the research outcomes, instead of starting with a theory as a foundation (Phair & Warren, 2021). Inductive reasoning starts from specific premises and then forms a general conclusion. This approach is also called bottom-up reasoning. Inductive reasoning aligns with qualitative research methods, and this is why it was not selected for this research.

3.3.2. Deductive reasoning

The deductive research approach, in contrast to the inductive strategy, begins by presenting a theory with the purpose to expand upon or test it (Phair & Warren, 2021). Deductive reasoning draws a specific conclusion from general premises. For instance, this study investigated remote work and its associated important success elements. The COVID-19 restrictions prompted a transition from office-based to home- based working arrangements, which contributed to the rise of remote work in South Africa. This study sought to comprehend the effects of this shift both before and after COVID. As a result, it was determined that a deductive research technique employing quantitative methodologies was acceptable for carrying out the investigation. It made it possible for the researcher to collect data and perform an objective analysis, that also demonstrated relationships that existed between the research variables (Khaldi, 2017).

The objective analysis placed more emphasis on numbers and breadth than on words and depth (Tiley, 2017), to forecast how each of the hypothesized variables would affect participants' success in remote work. With one of the objectives to determine the relationship between remote work and employee productivity, as well as the choice of the workforce between office-based and remote work, the study was conducted in the South African banking institution.

This was accomplished using a procedure that hypothesized that there were essential factors that contributed to the effectiveness and success of remote work. The hypothesis was then put to the test by developing research questions and objectives. The hypotheses were then put to the test using the deductive research techniques that were chosen. Additionally, it showed that the research's questions and objectives were formed from the assumptions after it began with assumptions based on a theory. Research dependent variable "remote work success" and independent variables, "people", "organization", "ICTs" and "environment and location", were formulated using a developed conceptual framework. Literature review and primary data collection and analysis formed part of the process to evaluate and measure outcomes. The measurements included an electronic survey instrument, the expertise of a statistician to compute software tests on the SPSS analysis program, which were then analysed and interpreted by the researcher.

3.4. Research approaches

There are three different research methodologies: mixed, qualitative, and quantitative. To gather the necessary information from the data sources, the research approach enables the researchers to develop techniques to follow a systematic and ordered approach during the collecting and analysis of data (Babbie, 2012). The methodological, epistemology, and ontological components of a study can all be traced using this method (Grix, 2010). To select the best technique to accomplish the research's goals, it is essential to properly comprehend the goals of the study (Wright & Losekoot, 2012). This study chose a quantitative methodology. Nevertheless, it is essential to begin by narrowing the qualitative approach so that the reader may understand the applicability of the chosen approach.

3.4.1. Qualitative approach

Khaldi (2017:21) defined qualitative research as "a means for exploring and understanding the meaning individuals or groups ascribe to a social or human problem. Data is typically collected in the participant's setting. Data analysis inductively building from particulars to general themes, and the researcher making interpretations of the meaning of the data".

Yilmaz (2013) simply defined qualitative research to be any other type of research approach that did not apply mathematical methods or make use of statistics to articulate research outcomes. But then later provided a more comprehensive definition of qualitative research as "an emergent, inductive, interpretive and naturalistic approach to the study of people, cases, phenomena, social situations and processes in their natural settings in order to reveal in descriptive terms the meanings that people attach to their experiences of the world" (Yilmaz, 2013: 312).

This type of research methodology accepts the existence of multiple realities as perceived by respondents. Through the application of subjectivist epistemology and naturalistic. This methodology subscribes to inductive reasoning to achieve research objectives. Qualitative research methodology will scrutinize existing information about research subject to reach outcomes or informed decisions (Formplus, 2022). It is a form of applied social research method that gathers and examines useful information about organizational processes, people systems or products (Formplus, 2022).

"Qualitative research design assumes that knowledge is not independent of the knower, but socially con- structed and that reality is neither static nor fixed. Since there are multiple realities that different cultural groups construct based on their world views or value systems, there are multiple interpretations or perspectives on any event or situation" (Yilmaz, 2013: 316). Meaning that research outcomes obtained from the sampled representative of the population may not be inferred to others. Since they pertain to individual respondent experiences and perceptions of the phenomenon under investigation. Moreover, the data collection methods for qualitative research were noted to generally be interviews and observations of participants in their natural environment, without pre-defined categories of analysis.

Remote work is characterized by a geographically dispersed workforce and therefore, dispersed research participants because of the scattered employee locations outside the employer premises. This posed a challenge when considering the inductive research methodology and associated data collection instruments. As it would require experimental research such as observation so that remote worker patterns can be identified, analysed, and interpreted for reaching conclusions-based outcomes (Khaldi, 2017). This was one of the reasons for not selecting the qualitative research method.

3.4.2. Quantitative approach

This study chose a quantitative methodology. To test a hypothesis or theory using factors that can be quantified in numbers and statistically analysed to identify research predictions or results, quantitative research is a sort of pragmatic inquiry into social or human problems (Yilmaz, 2013). To respond to research questions or to characterize a research phenomenon, quantitative research methods use and analyze numerical data using precise statistical formulas.

The author argued that "quantitative research is a means for testing objective theories by examining the relationship among variables" Khaldi (2017:19) offered support for the same description of the quantitative research paradigm. Each of these variables can be measured in turn. Typically, on instruments to allow for statistical analysis of numerical data.

The elementary principle of quantitative research is to apply a measurement to research variables that can be counted and then analysed through selected statistical techniques. It applies deductive approached in pursuit of the research outcomes. This method required a pre-constructed data collection instrument by the researcher because it was an electronic questionnaire, categorizing different experiences and perspectives of randomly nominated large representative samples of a population (Yilmaz, 2013). The probability sampling then allows generalization of the research findings to the whole population. Through the deductive approach and predefined standard responses that determine research outcomes based on generalization and prediction. Data were collected from the remote working bank employees and analysed through a quantitative research method. A statistician assisted with the data analysis, using the SPSS software application. A convenience representative sample of corporate bank employees eligible for remote work were requested to participate in the study. To answer research questions about factors they perceived crucial for successful remote working. Factors such as people, work location and environments, information communication technologies, collaboration partners and employer support during telework.

3.5 Research design

Babbie (2012) alluded that the research design acts as the project's architectural blueprint, connecting de- sign, data collecting, and analysis activities to the research questions and ensuring that the entire research agenda is covered. Case study designs, action research designs, experimental designs, survey designs, and archival analyses are a few examples of the various types of research designs (Maxwell, 2008)

3.5.1 Survey

An electronic survey was selected as the most suitable method even though literature suggested that for analyzing the IS phenomena in quantitative research, a case study is often required (Jensen & Aanestad, 2007). This was said to be significant when researching IS applications because it highlighted the necessity to discuss both structural and real-world usage scenarios to understand how and why users adopt IS (Jensen, Kjaergaard, & Svejvig, 2009). A case study was considered for this study but found too intensive and more suitable in examining people, things, domains, or contexts (Trochim, Donnelly & Arora, 2015), which was not aligned to the design of this research. As remote workers were surveyed from geographically dispersed home locations.

The study's findings were significant enough to be extrapolated to the bank's larger target demographic of remote employees in Rosebank. To equip the company with fresh information and employee insights about the success aspects of remote work, so that it can determine whether remote work will be just as successful and long-lasting outside of the COVID-19 confines. The study's findings can also be distributed to other banks in Gauteng offices that are examining the effects of remote work on worker productivity. Although telework is not fully a new concept, there have only been a few studies on it. For this reason, the survey research instrument was used. Even more so in underdeveloped nations like South Africa. There COVID-19 pandemic was also an event that occurred at a point in time, without any predictable behaviours. The impact caused by COVID-19 on the labour market and remote work, are yet to be comprehended fully, as many scholars are still conduction research on this multifaceted telework topic.

3.6 Target population

The researcher was a full-time employee at one of the leading South African banks where this research was conducted. This financial institution offered various roles within the Information Communication Technology sector. The target population for this study consisted of part-time and full-time bank employees at the Rosebank office in Gauteng province. All working in the information and technology profession. Each responded was personally invited to participate in the research. Most agreed because they had a keen interest on the study outcomes because the COVID period affected all employees when mandatory telework was implemented. This mandatory telework policy was being re-evaluated by the organization after all restrictive COVID regulations were lifted. The organization sought to determine whether to revert to full-time office-based work or adopt a hybrid or full-time remote working approach. This is why this study was applicable to this specific bank. It provided the leadership with some of the answers they may otherwise struggle to obtain from employees.

This academic research study offered employees an opportunity to provide their honest feedback on remote work without fear and prejudice. The outcomes were solely intended to add to knowledge of the IS field in the subject of telework and provide valuable information to the bank and other similar organizations.

3.6.1 Sampling strategy

A sample is a subset of the target population that was selected to participate in a research study, to represent the whole population (Landreneau & Creek, 2009). The quantitative research method selected to conduct this study allowed for the use of either one of two major sampling strategies. These are probability and non- probability sampling.

Whether a probability or non-probability sampling strategy is adopted, it is important that acquired knowledge can be applied and accepted by the population (Uprichard, 2013).

Sedgwick (2013) defined probability sampling as random sampling strategy, where all the units of sampling have an identified non- zero probability of choice or selection is a probability sample. He further added that random sampling was based on the premise that every member of the population had an equal probability of being selected for the research (Sedgwick, 2013). Taherdoost (2016**)** provided examples of probability sampling techniques, and these included 1) Simple random sampling, 2) Systematic sampling, 3) Stratified random sampling, 4) Cluster sampling and 5) multi-stage sampling.

Probability or random sampling was said to provide the least biases but more costly sample in terms of time and other resources (Taherdoost, 2016). While non-probability sampling was sometimes referred to as non- random sampling and was infamous for producing biases. Landreneau & Creek (2009) provided methods that are often used for non-probability sampling. These were 1) convenience sampling, 2) quota sampling,

3) purposive or judgmental sampling, and 4) Snowball sampling.

The convenience non-probability and purposive sampling strategy were chosen for this research work. The decision was informed by the ease in which research participants were accessible to the researcher. As the researcher was also an employee of the bank at the time of this study. The convenience sampling strategy further assisted in the reduction of research costs and offered the opportunity to overcome time constraints. This is why the chosen sampling strategy was regarded as the most opportunely for this this study. Research respondents were recruited from various Corporate and Investment (CIB) banking departments of the bank under study. The participants were randomly selected based on their eligibility to work remotely. To minimize sampling biases, no additional special criteria were applied for the different roles and across all hierarchical reporting structures. As biases limited the generalization of research outcomes according to Taherdoost (2016). Probability sampling was not selected due to the challenges it presented for obtaining a sampling frame. A sampling frame is a list of all units or cases used by the researcher to specify representation of the population of interest (Taherdoost, 2016).

3.6.2. Sample and Sample Size

Teleworking bank employees in Gauteng were identified as the sample, to make an inference about the target population of teleworking ICT employees in South Africa. Particularly in the banking sector and within the Information Technology domain of a specific Rosebank bank department.

The selected sample from CIB consisted of a small group of individuals focusing on high value corporate clients. Serviced by highly specialized team of IT professionals. Approval for collecting the data was only granted on condition that the sample size should not exceed 200 employees. This is because the privilege to send out CIB wide surveys was reserved for the department group CIO, service management and Human Capital and the likes.

Therefore, the sample of the target population could not exceed the approved number of up to 200 participants, spanning across two departments. The overall target population was 600 CIB employees, and this would have required a sample of at least a 30% response rate, additional compliance, and special clearance. There was no history of any employee ever granted the approval due to stringent data privacy and compliance policies that govern the bank, and subsequently the CIB department.

This is the reason the research was conducted with a target population of 150 remote working employees and obtained the required minimum responses of 106. The responses accounted for 70% of the target population. This sample size was considered clinically meaningful. The 106 responses aligned to the suggested sample size of 50-100 remote working employees, in the early design phase of the project. Upon which ethical clearance and research proposal were approved. Rahi (2017) suggested that a sample size of 10 to 30 respondents was sufficient for quantitative research. If the sample size was smaller than that interval, then the reliability and validity of the results will be compromised. Meaning research findings cannot be generalized to the whole population because the sample size was not adequate. The bank operated in a hybrid remote working model that allowed employees to alternate between working from home or at the office location. The convenience sampling allowed for the data gathering from representatives of the target population (Stratton, 2021). Participants were invited to respond to the survey based on their profiles and suitability to the study i.e., all ICT employees with job roles that allows for telecommuting. The research participants were given the option to accept or decline the invitation. It was also communicated to all participants that they were at liberty to stop participation at any time, should they wish to withdraw from the study.

The data collection tool for this research was an electronic questionnaire. It comprised of closed- ended and Likert scale type questions. All statements were designed to address research question intended to evaluate factors that remote workers consider critical for successful remote work. This approach was informed by time and resource constraints to complete this project. As the convenience sample was cost effective and offered actionable research outcomes based analysed and mathematical calculated data (Formplus, 2022).

The margin of error from responses was minimized by anonymizing and keeping all research participants data confidential. As research results can often essentialize findings to all members of a group as truth knowable within some quantifiable error. Additionally, the attitudes and beliefs of the majority often dominate conclusions drawn and underemphasizes responses from minoritized individuals (Godwin et al., 2021:16).

3.7 Data Collection Instrument

Data was collected and analysed through a quantitative research method, from a convenience representative sample of the bank employees eligible for remote work. A web-based survey was identified as most suitable research instrument for this study because it offered convenience to the respondents. Additionally, remote work was done from dispersed employee locations. Other data collection methods such as interviews, observations were impractical for the study.

Therefore. an online questionnaire was regarded most suited to the study for reaching geographically dis- tributed bank employees. The sample of responded were all Information Technology (IT) professionals with access to receive the electronic invitation, to participate on the research.

Research data was collected from two departments, consisting of multiple teams of IT professionals, occupying different roles, at different levels in the organization. The questionnaire for the survey was created from the Microsoft Forms application and with contents illustrated in Table 3.1. All sections consisted of mandatory closed-ended questions pertaining to the three research objectives of the study.

Table 3.1 Research instrument

Section	RO No.	Research Objective	Research Variable	Scale of measure
Consent form	N/A	To get consent from respondents	N/A	N/A
Section One	N/A	To obtain demographics of the sample	N/A	Nominal & Ordinal data Interval & Ratio Output results
Section Two	OB1	To determine the impact of critical success factors of remote work	People Organization ICTs Location	Nominal & Ordinal data Interval & Ratio Output results

Section Three	OB2	To determine remote work success	Remote work success	Nominal & Ordinal data Interval & Ratio Output results
Section Four	OB2	To determine employee perceptions on the impact of remote work on productivity	Remote work productivity	Nominal & Ordinal data Interval & Ratio Output results
Section Five	OB3	To determine employee preferences between office and remote work	Remote work preference	Nominal & Ordinal data Interval & Ratio Output results

The questionnaire was electronically distributed to all potential and willing research participants (150) from the corporate and investment department. Respondents completed the survey online and feedback was also obtained electronically. The raw data of responses to the questionnaire were captured on MS Forms, in an Excel worksheet format for further analysis in the SPSS statistical tool. A variety of tests, which chapter four elaborated on, were applied on the data set using SPSS. The statistician conducted all the statistical analysis of the variables using the SPSS software tool and share outcomes to the researcher. The results were then further analysed, interpreted, and reported on by the researcher in chapters four and five. To address the research questions, compute research findings and provide recommendations and conclusion to the study.

3.8 Data Analysis

An online software tool was selected for data analysis for survey responses that were also obtained electronically. The data analysis process entailed sorting and analysis of the responses prior to applying mathematical techniques to generate descriptive statistics from the data (Rowley, 2014). Assistance from a statistician was enlisted for data preparation and statistical procedures in a Statistical Package for the Social Sciences (SPSS). A software application tool utilized for comprehensive analysis on the collected data set.

The Business Research Methodology (BRM) (2022) described data analysis methods as those that turn raw data into meaningful information. By applying critical and rational thinking which often included calculations based of statistical procedures. Outcomes from the calculations addressed the research problem, by determining the frequencies, relationships, and difference between predefine research variables (BRM, 2022). Godwin, Benedict, Rohde, Thielmeyer, Perkins, Major, & Chen, Z. (2021) Agreed with this definition of data analysis for a quantitative research study.

Compatibility of MS forms to SPSS allowed for the data ingestion of the Excel worksheet responses into the SPSS tool for analysis. A general SPSS data analysis process was then followed by the statistician to determine outcomes from collected data regarding the research questions and objectives. The interpretation of the results provided by the statistician was done by the researcher. This involved sorting of independent and dependent variables, classification, and ordering of the data values, constructing composite variables, and collating the views of research respondents. To derive outcomes of the research from survey responses and statistic calculations. This was done in a manner that prevented biases of the researcher, as one of the remote working bank employees at the time the study was conducted.

3.8.1. Scales of Measurement

It was important to use a statistical measurement scale to test the validity and reliability of the data. From the outcomes of the questionnaire responses. The research questionnaire contained sub-categories of sections that addressed each of the research questions and objectives. For which data were collected and used to perform statistical analysis of responses from bank respondents. The next section gives an overview of each measurement level, as denoted in Table 3.1. To highlight the use of the four levels of measurements applied on the quantitative research variables for the study (Anonim, 2019).

3.8.1.1. Nominal Scale

This is the first level of measurement used to label research variables in different categories without indicating their order or quantity values. Brown (2011) distinguished between two types of nominal scales that are found in literature, namely the dichotomous scale where only two categories can be selected and categorical scales. This scale was used to create all nominal values of the research instrument.

The dependent research variable of this study was successful remote work. The independent variables that were measured and tested were 1) Location & environment, 2) Information Communication Technologies,

3) People, 4) Organization, 5) Productivity, and 6) Preference.

The nominal measurement was applied in defining the data items contained on the questionnaire from sections one to five. For, example demonstrating the use of a nominal measurement scale, was the questionnaire section pertaining to the demographics of respondents. Both types of nominal scale measurements were used in the research.

A dichotomous nominal measure that gave respondents only two possible answers of yes/no or female/male and the category ordered sub-type (Brown,2011**).** The later made use of Likert scale statements to measure frequencies and satisfaction levels of employees regarding remote work and their perceived productivity**.** Brown (2011) placed emphasis on the use of this scale to uniquely label or categorize variables, without quantitative value or order. Calculations done on nominal variables will be useless because numerical values assigned for nominal scales are often for tagging, identification, or classification of the research variables (Brown, 2011). A high response rate is said to increases the reliability of a nominal measurement scale.

3.8.1.2. Ordinal Scale

This Ordinal scale was used in the similar manner as the nominal scale, to define data items included on the research questionnaire. Using two types of ordinal scale measures in a Likert scale format, to measure a level of satisfaction that remote workers felt towards working from home (Sullivan & Artino, 2013). Five possible answers were given and the responded were required to select one of them. These were 1. strongly disagree 2. disagree, 3. neutral, 4. agree or 5. strongly agree. Another example to demonstrate variables that used ordinal scale was the question addressing the frequency in which remote workers would prefer office commuting. Response options provided were 1. never, 2. seldom, 3. some of the time, 4. most of the time and 5. all the time. The ordinal scale signifies and places emphasis on the ordering and ranking of data variables.

This is the second level of measurement that applies a ranking and ordering of the categorized data, without indicating the level of variation between the variables. According to Sullivan & Artino (2013), the ordinal scale is used to understand whether variables were lesser or greater that one other. It measures quantitative data where categories are ranked and sorted but differences between the values is unknown. With a central tendency called a Median. The ordinal scale signifies and places emphasis on the order and ranking of data variables.

3.8.1.3. Interval Scale

This is a numerical and third level data measure that increments from the level 2 measurement. The precise differences between values and order of the values are known in the interval scale. This type of scale gives equal intervals between the points on the scale (Brown, 2011). Additionally, the interval scale uses both negative and positive values and does not have an absolute zero.

This measure was applied on survey responses to compute descriptive statistics on all the data set. As was the Ratio scale, briefly discussed in the subsequent paragraph, for linear regression and comparison tests.

8.8.1.4. Ratio Scale

This final measurement level is an extension of the interval scale. It provides categories, order, interval and zero values. Making it possible to perform arithmetic calculations that includes multiplication and division (Brown, 2011). Contrary to the interval scales that only cater for calculations of additions and subtraction. The interval and ratio scales can be collapsed into one category to form a continuous scale of measurement.

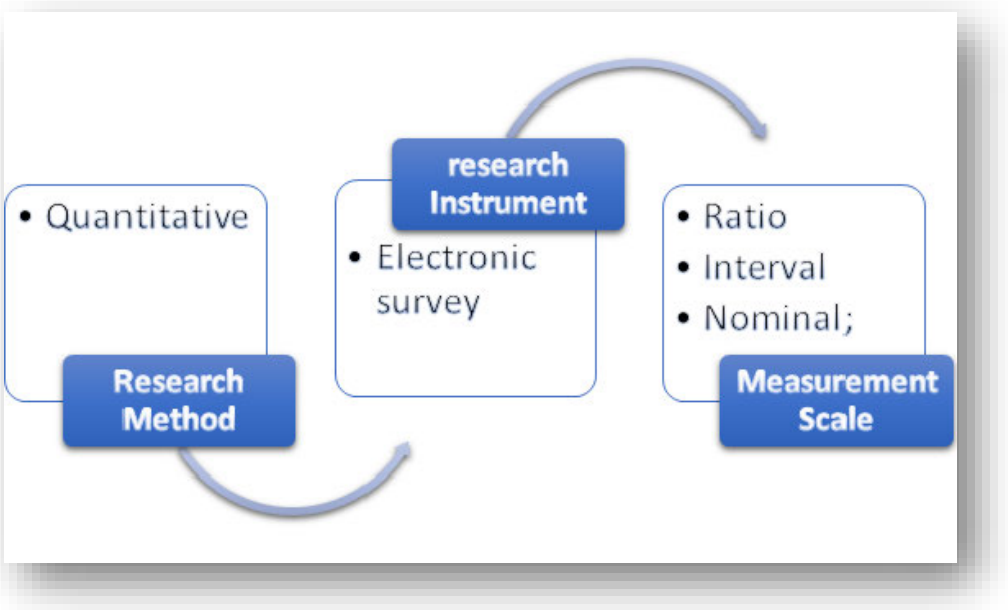


Figure 3.2. Summary of Research Approach

The interval scale of measurement was used in this research study. It aligned with the selected research instrument and quantitative methodology, as well as overall design and purpose of this study. The aims of the study were to create new knowledge in the topic of telework and telecommuting ICT organizations, by determining critical success factors of remote work, employee perceptions on the impact of remote work on their productivity and indicate employee preferences between office-based and home-based working conditions.

The list of questions on the research survey addressed each of the critical success factors of telework that were proposed on the conceptual framework that underpinned this study. It also focused on the research objectives to determine employee perspectives on the impact that remote work had on their productivity. The instrument was tested through by sending it to a few remote working employees to gather insights on the structure and contents of the questionnaire. The feedback received was incorporated into the final version of the document that was distributed to the sample population of remote employees of the bank.

To present study findings and an unbiased conclusion, literature review discussions and questionnaire results were combined based on a philosophical investigation of how knowledge is created and gained, to ascertain the prerequisites for constructing a fact and justification from the beliefs (Mohajan, 2017). Meaning that since new knowledge was produced because of the study findings, the analysis for the chosen research methodology was able to satisfy the three conditions of truth, belief, and justification. The researcher examined the reliability and validity of research findings by using descriptive statistics, correlation, variance techniques, and converting Likert scales into interval scales (Mohajan, 2017). The research outcomes are presented at length in the chapter.

3.9 Ethical Considerations

The Financial institution did not provide access to its data but allowed for data to be gathered by the re- searcher. The Gatekeeper from the financial institution only required evidence of approved research topic and data collection method from the university. The approval for data collection was granted on condition that the researcher upheld anonymity of the institution and all personal information of research participants. This was done by excluding personal information of the participants from all research findings and published outcomes. Only the information addressing research questions and objectives was presented in the results and conclusions of the study. Neither the name of the bank nor the participants were mentioned. To adhere to the stipulated gatekeeper approval condition of concealing actual name of the study site and participants personal information in the research publication.

A declaration from the researcher was submitted to the bank as a binding agreement to adhere to the South African Protection of Personal Information Act (POPIA), during the data collection and processing. Per- sonal information such as employees' names, surname, email addresses and identity numbers were not included in any of the research findings. The added advantage to keeping respondents anonymous was the increased probability of getting honest feedback from their responses. Since the participants knew that their identity was undisclosed in the processing and publishing of survey outcomes.

Only data pertaining to the research questions and objectives subject matter was collected, processed, and published. This ensured that no personal information was compromised, and privacy of both the institution and participants was protected. All research data in its raw or processed form was kept in a hard drive and in a password protect file.

The data was not shared with third parties. It was destroyed after the study, to avoid exposure in the long run.

The data was only used for its intended purpose, which sought to provide answers to research questions that evaluated critical success factors of remote work in a South African bank. Upon adhering to all the stipulated conditions by the Gatekeeper, study site of the bank in Gauteng was approved. The research Ethics Committee (HSSREC) from UKZN college of Law and Management studies also granted full ethical clearance for this study to be conducted (See Appendix 1).

In order to obtain ethical approval, it was necessary to have an approved research proposal, obtain the approval of gatekeepers, provide a justification for the study, and declare that the privacy and safety of research respondents have been taken into consideration during the data collection process. The ethical approval entails iterations of review and approval reviews by relevant governing stakeholders, from the HSSREC. The approval letter was granted when the researcher adhered to all the stipulated conditions of the process.

3.10 Summary

This chapter included discussions of various research philosophies, techniques, and tools. The researcher delved deeper into the chosen research technique, design, and data collection tool. This allowed us to highlight the reasons behind and benefits of the selected study design and approach. Additionally, the sampling techniques and statistical software used for this study's data analysis were explained. An explanation of ethical issues and study restrictions served as the conclusion for this chapter. The next chapter presents the findings from the data analysis and interpretation. Next, a research conclusion that is provided in chapter five is deduced from the research findings.

Chapter Four - Research Findings and Data Analysis

4.1 Introduction

This chapter outlines the research outcomes from the online survey that was administered to remote workers of the bank under study. The survey was conducted using an electronic questionnaire consisting of closed-ended questions. All the questions were mandatory, and none could be omitted by the participants as all were regarded important to address the research questions. This gave permission for data collection from various divisions at the bank. A convenience sample size of 150 remote working employees were invited to participate in the study.

The sample is a representation of a population from two departments and various divisions within Corporate and Investment Banking. A total of 106 responses were received from the distributed Microsoft Forms questionnaires. Statisticians suggested 100 as a minimum sample size to obtain any kind of meaningful results (Dahiru, 2008). So that the results can be projected onto the population from which the sample comes from. Table 6.1 presents demographic characteristics of all participants involved in survey. To provide answers to the research questions without any bias from the researcher. The following statistical tests were used.

4.2 Descriptive statistics

A combination of statistical tests was used to validate the research data to determine objectivity of the re- search outcomes. All the tests were applied to the collected data using descriptive statistics by the statistician using the SPSS analysis tool.

The values of descriptive statistics used to measure the research dependent, independent and composite variables include the means, standard deviations, and significant values, illustrated in tables and graphs for each test.

The tests of significance were applied to the research dependent variable; remote work success and the independent variables; People, Organization, ICTS and Location & Environment factors. The tests revealed whether the mean/median values are significantly different from the neutral or midpoint.

The “P-Value is a statistical measure used to determine the likelihood that an observed outcome is the result of chance”, this is a definition of the p-value according to Beers (2022). The author described the im- portance of statistical calculations to test a hypothesis against the collected and observed data (Beers, 2022). Significant level is traditionally set at 0.05 and a statistically highly significant as $P<0.001$ with less than a one in a thousand change of being wrong.

This means that there is an expectation for 95% of data points or results to fall within a certain range. When the results fall outside of this 95%, but in the remaining 5% then we consider it a significant result and the p-value <.05 indicating it falls in the 5% of values (Dahiru, 2008). For example, in the scale with a neutral value of 3, where the levels of disagreement are measured by values 1 and 2, levels of agreement measured by 4 and 5. Then when the mean >3 there is significant agreement and disagreement when p<3. Because the agreement scale used has neutral = 3; while agreement = 4 or 5 (>3) and disagreement = 1 or 2 (<3). This means that if p<0.05, the result is considered significant. Indicating that the result is significant enough and can be projected onto the population from which the sample comes. However, some authors warned that sometimes lower P-Values were a result of chance (Dahiru, 2008). Therefore, repeating the experiment or study may be required to confirm statistical significance of the relationship between data. However, the sample size for this research was known, providing knowledge about the data set by knowing just the upper limit of a confidence interval as by knowing the *d*, *t*-, or *p*-value of the sample (Francis & Jakicic, 2023). Given that *d* was also known, and the sample size meant that, there was sufficient in- formation to compute the confidence interval of *d* for all the descriptive statistic applied on the research variables. The next section elaborates on the list of the tests applied to the data set obtained from the respondents.

4.2.1. One-sample t-test

The one-sample t-test was applied in the study to compare the mean of the same to that of the population. The mean value in descriptive statistics is as measure of central tendency, calculated from the sum of all observations over the number of observations (Fabián, 2021). It is often referred to as the average. Whereas the scalar value is a one-dimensional value that measures magnitude of a variable (Fabián, 2021). All four sections of the research questionnaire consisted of Likert scale type questions that measured the participants level of agreements with the statements to determine impact of people, organization, ICTs, location, and environment factors on telework success, determine perceived remote worker productivity and determine preference between home and office work. This test was regarded suitable for univariate testing of the data.

4.2.2. Chi- square goodness-of-fit-test

This is a univariate test used for categorical variables. To test which response options were selected significantly more or less often than others. The chi-square goodness-of-fit test was applied to categorical variables by distribution and assumed that all responses were equally selected under the null hypothesis (Shankar, 2019). The test was used in this study to compare the variables developed in the critical success factors of the remote work model and the observed data from survey respondents.

4.2.3. Regression analysis

The Linear Regression estimated the coefficients of the linear equation. It involved one or more independent variables that best predicted the value of the dependent variable. The regression analysis was one of the tests applied, to test how each of the factors i.e. People, ICTs, Organization, Location, and Environment of the adopted framework related to the success of remote work.

4.2.4. Spearman`s correlation

This test measured the ranking and relation of ordinal variables. Correlation coefficients of non-normal distributions characterized by extreme values and outliers are often calculated using the ranks of data stead of actual values (Akoglu, 2018). For example, the correlation coefficients designed for such calculations are those of Spearman`s rho (denoted as r) and Kendall`s Tau. The Spearman`s correction was the selected test to determine correlation between research variables of this study. The qualities of the data set collected for the study allowed for the Spearman`s correlation test to be used.

4.2.5 Independent sample t-test

This test compared two independent groups of cases. It was applied to all the categories of the hypothesized factors that impact remote work. To determine statistical distribution of the data, mean, standard deviations, and p-values.

4.3 Research results

The findings of the study are presented in subsequent paragraphs and are based on the contents of the research questionnaire used to collect research data. This research sought to answer the following research questions:

- What is the impact that people, organization, ICTs, location & environment factors have on the success of remote work, for employees of a bank in Gauteng, South Africa?
- What is the perceived impact of working remotely on the productivity of bank employees in Gauteng?
- How often do employees prefer office-based or remote working?

A descriptive analysis and inferential outcomes are provided for sections two through five of the questionnaire (See Appendix 2). Bar graphs and tabular data visualization demonstrate each investigated variable and present a summary of the statistical findings for each valid response obtained throughout all questionnaire sections.

Univariate and composite variable tests were conducted and demonstrated using tabular data. The univariate tests were done to determine the individual impact of each factor of remote work success, as stated in the chosen conceptual framework of the study. Then composite tests were also done to ascertain the overlap between the critical success factors of remote, as suggested by literature. The process entailed the testing of individual data set outcomes, then creating composite variable to evaluate all the impact off all data sets concurrently. The univariate and composite variables were subjected to linear regression tests to determine the relationship between independent and dependent research variables. Then results were used to address each of the research objectives and answer the research questions. The outcomes of all the tests done on the data set informed study conclusions and recommendations, discussed in the final chapter of the thesis.

4.3.1. Respondent Demographics

Section one of the questionnaire consisted of questions pertaining to the demographics of the respondents. This data set was obtained from the convenience sample of bank employees that are currently working in a hybrid model in Gauteng province. Table 4.1 illustrates the demographic information of the respondents.

Table 4.1. Demographic statistics of participants

Gender				
		Frequency	Percent	Cumulative percent
Valid	Male	49	46.2	46.2
	Female	57	53.8	100
Total		106	100	
Age				
		Frequency	Percent	Cumulative percent
Valid	21-29	14	13.2	13.2
	30-39	46	43.4	56.6
	40-49	28	26.4	83.0
	50-59	13	12.3	95.3
	60+	5	4.7	100
Total		106	100	

Ethnic Group				
		Frequency	Percent	Cumulative percent
Valid	Black	58	54.7	54.7
	Coloured	4	3.8	58.5
	White	29	27.4	85.8
	Indian/Asian	15	14.2	100
Total		106	100	
Marital status				
		Frequency	Percent	Cumulative percent
Valid	Single	46	43.4	43.8
	Married	51	48.1	92.4
	Divorced or separated	4	3.8	96.2
	Widowed	2	1.9	98.1
	Other	2	1.9	100
Missing		1	.9	
Total		105	100	
Other > marital status				
		Frequency	Percent	Cumulative percent
Valid		103	97.2	97.2
	Customary married	1	.9	98.1
	Living with partner	1	.9	99.1
	Partner	1	.9	100
Total		106	100	
Job level				
		Frequency	Percent	Cumulative percent
Valid	Executive	4	3.8	3.8
	Senior management	32	30.2	34.2
	Middle management	19	17.9	52.1

	Junior management	12	11.3	63.4
	Specialist	33	31.1	94,5
	Intern/Graduate	1	0.9	95.4
	General support staff	5	4.7	100
Total		106	100	
Highest Qualification				
		Frequency	Percent	Cumulative percent
Valid	Matric	6	5.7	5.7
	Diploma	18	17.0	22.6
	Bachelor`s degree	24	22.6	45.3
	Honours degree	37	34.9	80.2
	Master`s degree	20	18.0	99,1
	PhD	1	0.9	100
Total		106	100	

Responses were obtained from of 106 respondents from the surveyed 150 remote working bank employees. Consisting of 57 females and 49 males, from two CIB departments. The departments each had its own remote working teams with specialists in various fields of service and knowledge. The Figure 4.1 shows gender and other related aspect.

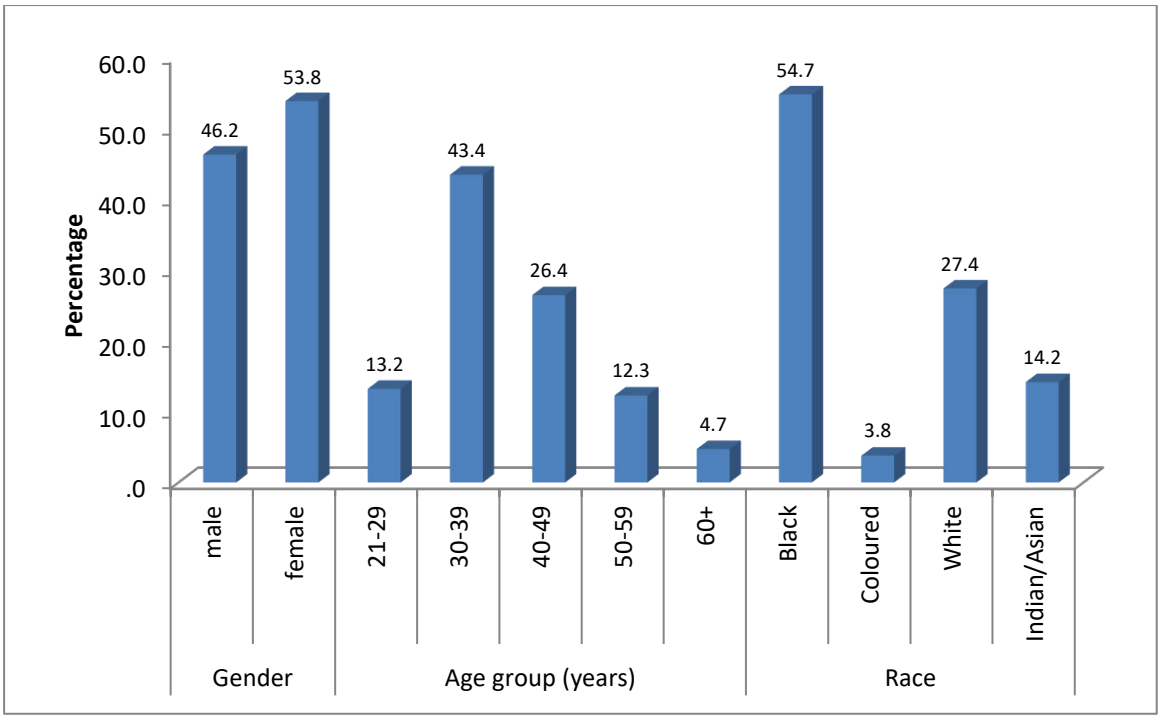


Figure 4.1. Bar graph representing gender, age group and race of the respondents.

4.3.1.2 Marital status

The Figure 4.2 shows marital status. 4.7% from the 106 respondents were 60 years or older. The highest response rate was received from the black ethnic group at 54, 7% of the total 106 sample population.

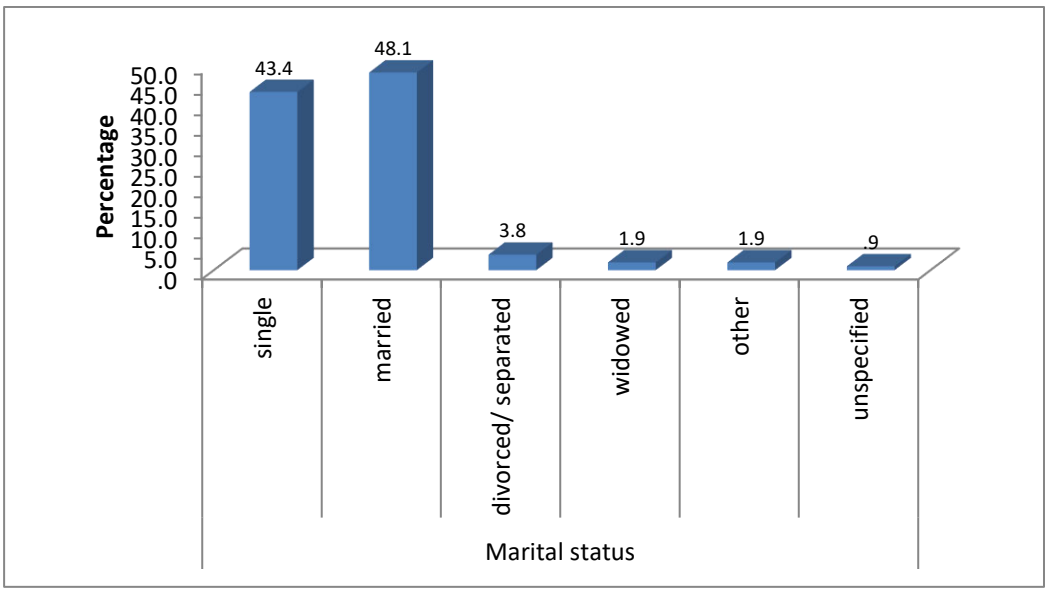


Figure 4.2. Marital status statistics of participants.

4.3.1.3 Qualification and Job level

The graphs shows that 24.6% of respondents had bachelor's degrees, and 24.6% had honours degrees. Most of the sample also held managerial and specialty positions. Among all responses, those from specialists accounted for 31.1% of the total. While replies from management positions at all levels, from entry-level to executive, accounted for up to 63.2% of the responses. The Figure 4.3 illustrates the participants qualification variations.

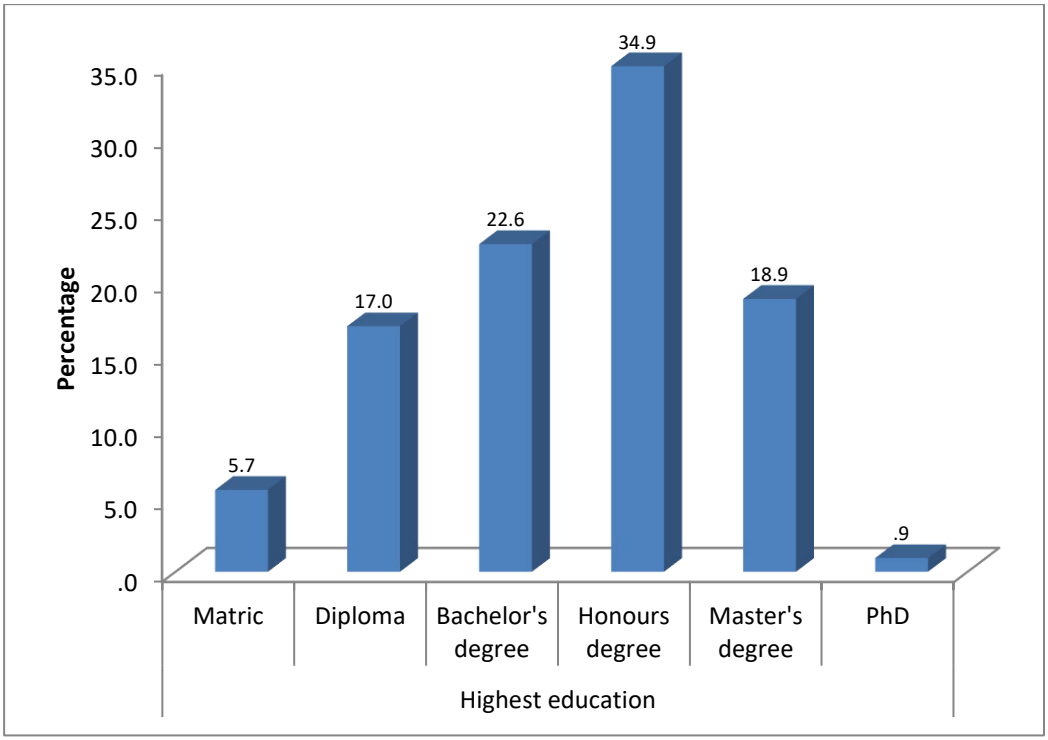


Figure 4.3. highest qualification held by participants.

The rest of the responses were obtained from 0.9% interns and graduates and 4.7% general support occupying junior roles in the department. Figure 4.4 shows the jobs occupied by the participants.

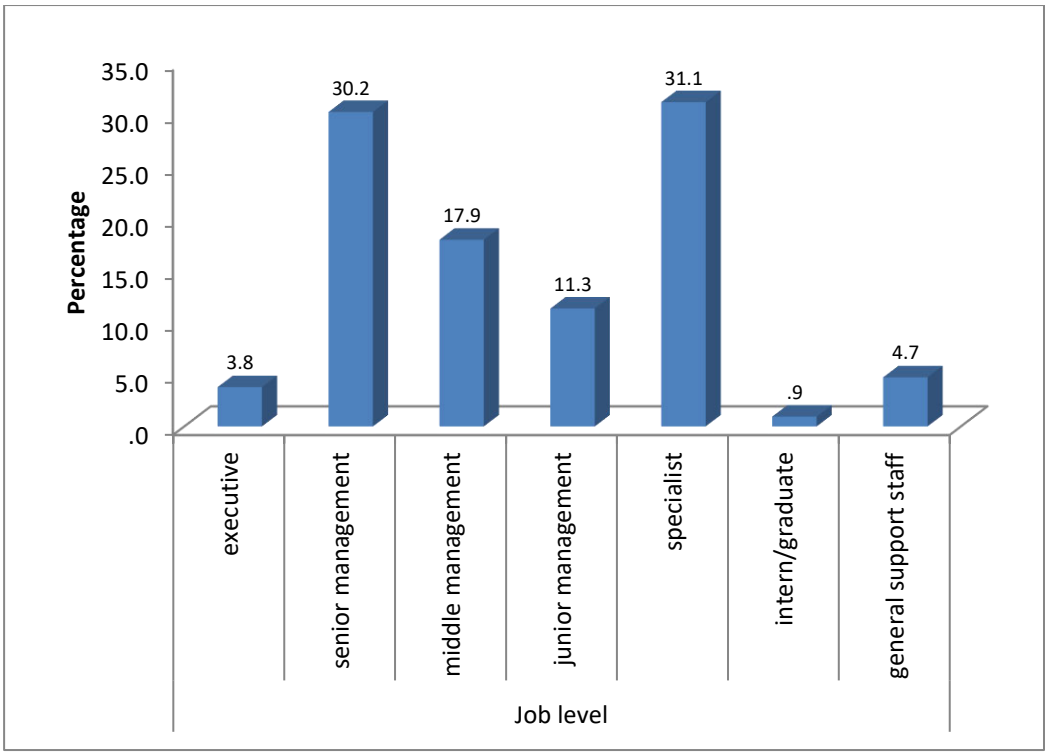


Figure 4.4: Job level of participants

4.3.2 Organizational Factors

The results of the data tested to evaluate organizational factors that have an impact on remote success are demonstrated in the Table 4.2 and graph 4.5. Responses were obtained from section 2 of the research questionnaire, addressing the objectives pertaining to the impact of organizational factors on telework success.

The table and bar graph show response frequencies (%) for the survey that 106 people who work remotely replied. The results of a one-sample T-test were reported in the following parts for interpretation and re- porting. The difference's magnitude in respect to the sample data's fluctuation was assessed by the t-value. The frequency of each statement was listed together with the percentage of replies that it received relative to the total sample size. The number of participants that submitted legitimate responses was indicated by the value "n". The data's central tendency was measured by the mean. The data's spread from the mean was quantified using the standard deviation (SD). Whereas low values suggested that data were grouped around the mean and high SD suggested that data were more dispersed.

Table 4.2 provides an overview of the inferential tests applied to the statement pertaining to organizational factors that have impact on the success of remote working. The tests were based on the level at which respondents agreed or disagreed to each of the questionnaire statements using a one-sample t-test.

Table 4.2. Organizational factors: One- Sample Test

Statement	Responses as Frequency (%)					n	Mean (SD)	t	df	p-value
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree					
Q2.1 I feel supported by my manager when working remotely	-	1 (0.9)	10 (9,4)	49 (46.2)	46 (43.4)	106	4.32 (0.684)	19.886	105	<.001
Q2.2 A policy regarding remote work was clearly communicated to me.	1 (0.9)	2 (1.9)	12 (11.3)	52 (49.1)	39 (36.8)	106	4.19 (0.782)	15.648	105	<.001
Q2.3 The organization has provided adequate collaboration tools for remote work	-	1 (0.9)	8 (7.5)	38 (36.8)	58 (54.7)	106	4.45 (0.678)	22.062	105	<.001
Q2.4 We have regular virtual work meetings to enable us to deal with queries or problems that arise	-	1 (0.9)	5 (4.7)	42 (39.6)	58 (54.7)	106	4.48 (0.636)	23.979	105	<.001
Q2.5 I am able to communicate with my manager/superior if the need arises	-	-	3 (2.8)	43 (40.6)	60 (56.6)	106	4.54 (0.555)	28.523	105	<.001

Q2.6 I am personally responsible for my data connection when working remotely	12 (11.3)	16 (15.1)	11 (10.4)	29 (27.4)	38 (35.8)	106	3.6 (1.398)	4.517	105	<.001

There were 89.6% positive responses to the question asking of remote workers felt supported by management when working remotely. Comprising of 46, 2% and 43.4% of the respondents who respectively agreed and strongly agreed to having management support during remote work. The remaining 9.4% of the sample felt indifferent whilst 0.9% did not feel supported by their managers. When respondents were asked if the organization provided adequate communication channels to collaborate with managers, 56.6% strongly agreed, 40.6% agreed, 2.8% felt indifferent. No disagreement responses were received. More than 90% of the sample agreed that there were adequate collaboration tools provided by the organization for remote work. There was also a significant agreement to the organization providing clear communication to employees regarding the remote work policy. Figure 4.5. demonstrates that 85.9% of the sample either agreed or strongly agreed that the organization provided clear communication about remote work. This is also reflected by the mean scores, depicted in Figure 4.5. which are >3 and indicate a significant agreement to all the statements. Based on the 5-point Likert scale measuring the level of agreement for all questions in section two. This was also supported by significant P-value reported at p<.001. This value falls within the acceptance significant level of p<.05, indicating a 95% significant level. Therefore, these results were applicable to the rest of the population represented by the 106 respondents.

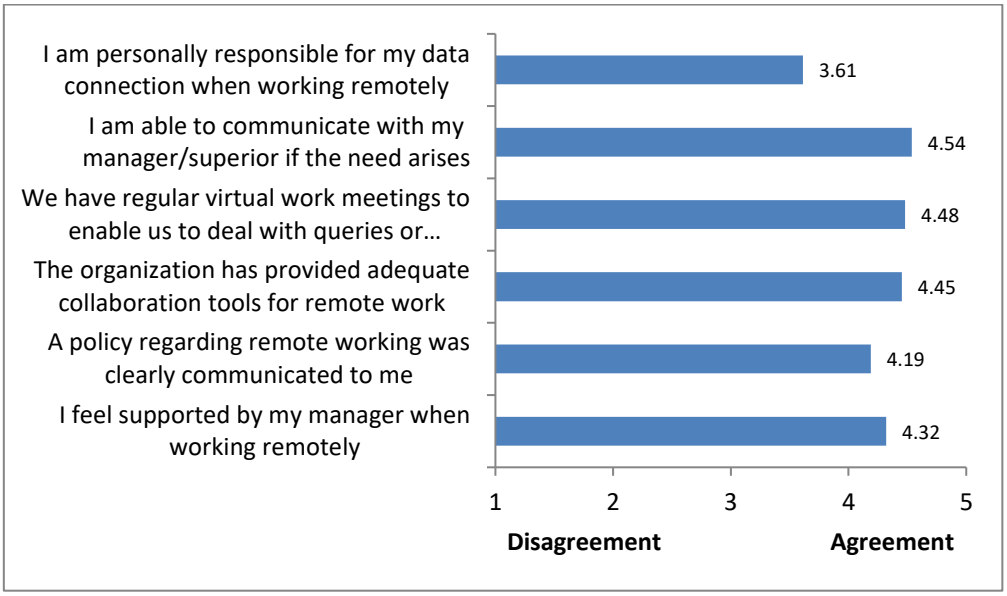


Figure 4.5. Organizational factors

4.3.3 Location and Environmental factors

Section three of the questionnaire assessed the significant level to which the remote working employees of the bank, agreed or disagreed with statements relating to the impact of environment and location on remote work success. A discussion regarding the survey responses and results for section three was derived from data covered in Table 4.3 and bar Figure 4.6. The results were generated from a statistical one sample t test, to determine significant agreement to each statement on first column on Table 4.3.

Table 4.3. Location and environmental factors: One-sample t-test

Statement	Responses as Frequency (%)					n	Mean (SD)	t	df	p-value
	Strongly	Disagree	Neutral	Agree	Strongly agree					
Q3.1 Remote work allows me to save CONSIDERABLY on travelling time	-	2(1.9)	3 (2.8)	17 (16.0)	84 (79.2)	106	4.73 (0.610)	29.140	105	<.001
Q3.2 Remote work allows me to save CONSIDERABLY on travel costs	-	4 (3.8)	4 (3.8)	16 (15.1)	82 (77.4)	106	4.66 (0.729)	23.455	105	<.001
Q3.3 I have a suitable dedicated home office space	2 (1.9)	7 (6.6)	7 (6.6)	38 (35.8)	52 (49.1)	106	4.24 (0.972)	13.097	105	<.001
Q3.4 There are many people living in my house which is dis-ruptive to my work environment	61 (57)	33 (31,1)	7 (6.6)	4 (3.8)	1 (0.9)	106	1.59 (0.848)	-17.061	105	<.001
Q3.5 There is reliable power supply at the location that I work	4 (3.8)	9 (8.5)	19 (17.9)	38 (35.8)	36 (34.0)	106	3.88 (1.093)	8.265	105	<.001

remotely										
Q3.6 The network connectivity at my re- mote work location is strong and reliable	-	2 (1.9)	4 (3.8)	50 (47.2)	50 (47.2)	106	4.40 (0.657)	21.871	105	<.001

Responses from 79.2% of the sample strongly agreed that working remotely gave workers considerable time saving benefits. Whilst 16% agreed, 2.8% indifferent and only 1.9% disagreed. From the 106 respondents, 77,4% indicated that they strongly agreed to the considerable cost savings attained by not travelling to the office. Only 15% agreed remote work saved them transport costs while only 3.8% respondents either disagreed or felt that it made no difference. Thefore, resulting in a significant agreement to remote work allowing considerable savings on transport cost and travel time.

However, Figure 4.6 shows the location and environment of remote working. There was also a significant agreement outcome from questions asking participants if they have access to reliable power supply at the location of remote work, access to strong and reliable network connectivity and accessed to a suitable dedicated workspace during remote work. Out of the remote workers who were surveyed, 84.9% confirmed that they had an appropriate home office area. Additionally, 94.4% and 69.8% of the participants reported having dependable network connectivity and electricity, respectively. These figures were higher than those reported by remote workers who did not have access to these resources. The only significant disagreement was to the statement that remote workers have a disruptive work environment because of many people living in the house. About 57.5% strongly disagreed and 31.1% disagreed to the statement.

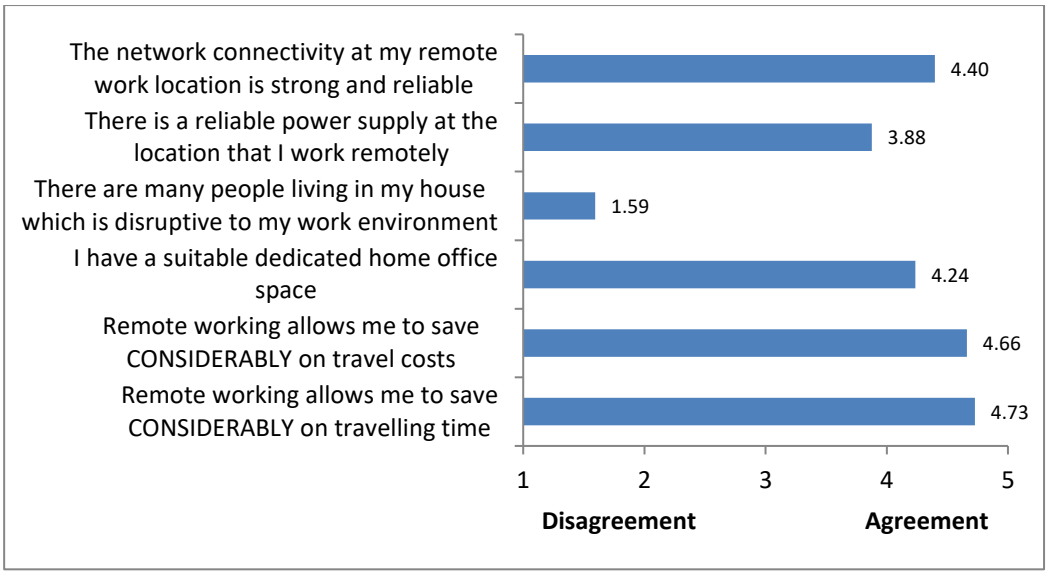


Figure 4.6. Location and environmental

4.3.4 ICT factors

This section assessed the impact of ICTs on the success of remote work. By evaluating the significant agreement or disagreement levels of respondents regarding their ICT needs and organizational support when working remotely. The outcomes from a one-sample t-test produced results are illustrated in Table 4.4 and Figure 4.7. This is supported by a discussion on each of the numerical values illustrated on the Table and bar graph.

Table 4.4. ICT factors: One-sample t-test

Statement	Responses as Frequency (%)					n	Mean (SD)	t	df	p-value
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree					
Q4.1 I have the necessary ICT equipment to work remotely	-	-	1 (0.9)	41 (38.7)	64 (60.4)	106	4.59 (0.512)	32.042	105	<.001
Q4.2 I have the necessary remote access tools to work remotely	-	1 (0.9)	-	45 (42.5)	60 (56.6)	106	4.55 (0.554)	28.736	105	<.001
Q4.3 Adequate support is available from the IT service desk for remote	2 (1.9)	2 (1,9)	20 (18.9)	44 (41.5)	38 (35.8)	106	4.08 (0.891)	12.424	105	<.001

technical queries										
Q4.4 I feel confident with security measures put in place by my organization to secure and protect ICT devices for remote work	-	-	4 (3.8)	54 (50.9)	48 (45.3)	106	4.42 (0.567)	25.703	105	<.001
Q4.5 I have the necessary data to work remotely	1 (0.9)	2 (1.9)	1 (0.9)	40 (37.7)	62 (58.5)	106	4.51 (0.707)	21.980	105	<.001

In Table 4.4 it shows that only 0.9% from the sample neither agreed nor disagreed to having adequate ICT tools for remote working. The rest of the survey respondents agreed and strongly agreed to having necessary ICT equipment for remote work.

The sample response rate of 50.9% and 45.3% indicated an agreement and strong agreement to the statement that security measures were in place for remote working de- vices. Whilst none of the respondents disagreed to the statement. Then 18.9% of the respondents felt indifferent when asked if there is adequate support is available from the IT service desk for remote technical queries, whilst a total of 77.3% agreed there is support. The remaining 3,8% from the same disagreed. With a 50/50 split disagree and strongly disagree responses.

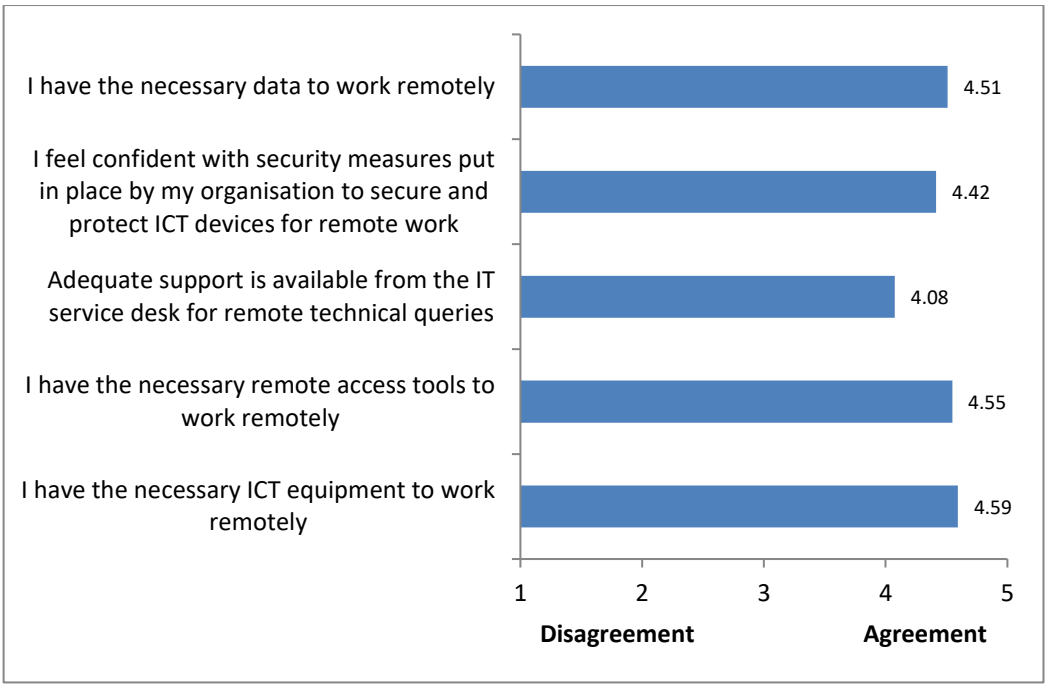


Figure 4.7. ICT factors

In Figure 4.7 the bar graph depicts the mean distributions of each questionnaire statement for which valid responses were measured. The overall outcome was a significant agreement for all ICT factors. This aligned to the hypothesis in literature that ICTs are enablers of remote work.

4.3.5 People factors

This section of the questionnaire asked respondents to rate their level of disagreement or agreement to each of the statements using 5-point Likert scale. The statements required participants to retrospect and provide honest feedback about their own productivity and self-efficacy for successful remote working. Like all preceding results sections of Chapter 4, the statistical results obtained after applying a one-sample t-test on the response data, are presented on a table and bar graph. Followed by a discussion of outcomes for each statement. The Table 4.5 shows the peoples' factor respondents.

Table 4.5. People factors: One-sample t-test

Statement	Responses as Frequency (%)					n	Mean (SD)	t	df	p-value
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree					
Q5.1 I feel confident to conduct remote work without constant management supervision	-	-	1 (0.9)	29 (27,4)	76 (71,7)	106	4.71 (0.477)	36.822	105	<.001
Q5.2 I feel disconnected from teammates when working remotely	22 (20.8)	41 (38.7)	26 (24.5)	14 (13.2)	3 (2.8)	106	2.39 (1.047)	-6.029	105	<.001
Q5.3 Working remotely improves my work-life balance	3 (2.8)	7 (6.6)	6 (5.7)	39 (36.8)	51 (48.1)	106	4.21 (1.012)	12.291	105	<.001
Q5.4 I am easily distracted when working remotely	39 (36.8)	47 (44.3)	8 (7.5)	7 (6.6)	5 (4.7)	106	1.98 (1.069)	-9.814	105	<.001
Q5.5 I am more productive when working remotely	4 (3.8)	4 (3.8)	18 (17,0)	26 (24.5)	54 (50,9)	106	4.15 (1.076)	11.012	105	<.001

In Table 4.5, there was a significant disagreement to feeling disconnected to teammates and being easily distracted when working remotely. The results demonstrated that 24.5% of the respondents indicated that working from home did not have an impact on how they connect with teammates. Whereas more than 50% indicated that working from home did not make them feel disconnected with teammates and the remaining 16% felt disconnected. More than 80% of the participants disagreed to experiencing disruptions during telework. Whilst the rest either agreed or gave a neutral response. This is reflected in the bar graph by the mean scores of both these item, showing values that are <3, i.e., 2.39 and 1.98 respectively. Figure 4.8 shows that the rest of the statements resulted in a significant agreement score, as all means are >3. Indicating that remote workers believe that working remotely improved their home-work life balance. The participants also believed that they are more productive and do not require constant management supervision during remote work.

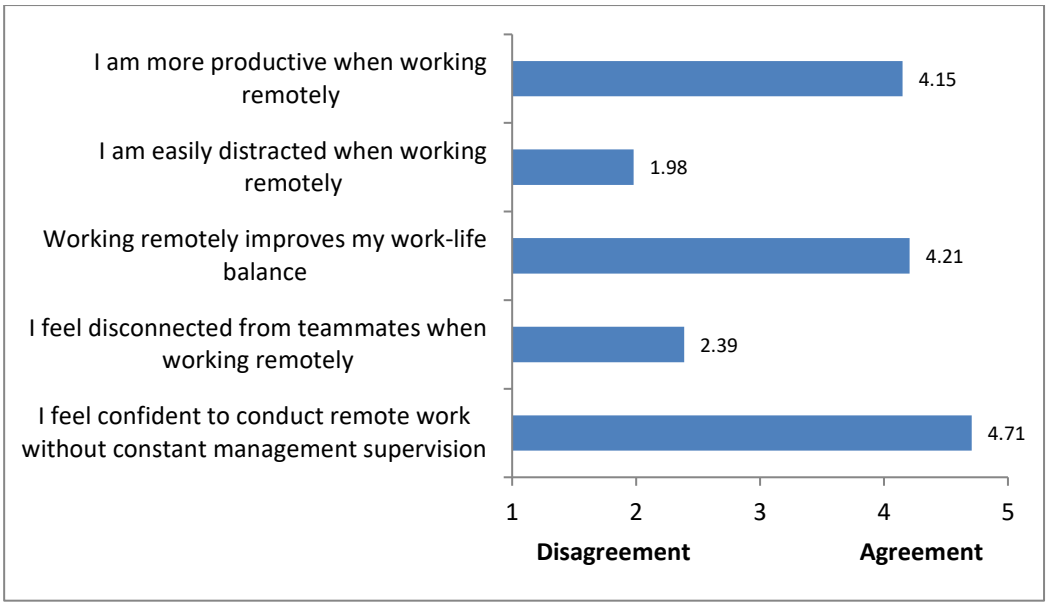


Figure 4.8. People factors

4.3.6 Forming composite measures for each factor.

The sample-one t-tests and analysis on each of the variables thought to be important for productive remote work were provided in the earlier sections. Each test was carried out independently and specifically for the variable being evaluated. Any potential relationships between the variables were not considered in the statements' univariate analysis. To effectively address the research purpose, it was crucial to evaluate the relationships between dependent and independent research variables. Prior to creating composite measures and performing a multivariate analysis, analysis was first performed for each individual factor.

To explore the structure of the items in each construct, each was reduced to a small number of latent variables. Then the proposed scales of each construct validated through factor analysis with promax rotation applied to the items in each construct. Some items fell off during the process because they did not load strongly enough onto any factor. The reliability of a composite variable formed by combining the items into a single latent variable was tested using Cronbach's alpha. The Cronbach's alpha estimated the internal consistency of responses in multi-item analysis to determine how closely related the factors were as a group (Vaske, Beaman & Sponarski, 2017). An alpha value of at least 0.7 is considered adequate. If items did not correlate strongly enough with the other items in the construct and negatively affect the reliability, they may be dropped. The factor extraction was deemed to be successful if the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) exceeds 0.6 and Bartlett's test of sphericity is significant.

4.3.6.1 Composite Organisational factors

Factor analysis with promax rotation was applied to the 6 statements addressing organizational factors in the questionnaire. Table 4.6 shows that item 6 was discarded because it did not load strongly enough onto the factor. That was the item regarding respondents being responsible for their own data connection for remote work. One factor which accounted for 39.10% of the variance in the data was extracted. A Kaiser- Meyer-Olkin Measure of Sampling Adequacy (KMO) of .769 and a significant Bartlett's test indicated that successful and reliable extraction took place.

Table 4.6. Organisational factors: loadings

Statement	Factor
	1
Q2.5 I am able to communicate with my manager/superior if the need arises	.699
Q2.1 I feel supported by my manager when working remotely	.691
Q2.4 We have regular virtual work meetings to enable us to deal with queries or problems that arise	.666
Q2.3 The organization has provided adequate collaboration tools for remote work	.562
Q2.2 A policy regarding remote working was clearly communicated to me	.479
Cronbach's alpha	.746

A composite variable ORG for organizational factors was produced by calculating the average of the agreement scores for the items included in the factor. This was deemed a reliable measure as indicated by the Cronbach's alpha statistic.

4.3.6.2 Composite Location and environmental factors

Factor analysis with promax rotation was applied to the 6 items. Prior to this analysis, item 3.4 was reverse coded. This item was later dropped because it negatively affected the reliability of the composite variable. Two factors which accounted for 48.91% of the variance in the data were extracted. A Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) of .546 and a significant Bartlett's test indicated that the data was adequate for extraction to take place. The Table 4.7 shows the composite location and environmental factors.

Table 4.7. Location and environment factors: loadings

Statement	Factor	
	1	2
Q3.2 Remote working allows me to save CONSIDERABLY on travel costs	.969	
Q3.1 Remote working allows me to save CONSIDERABLY on travelling time	.776	
Q3.6 The network connectivity at my remote work location is strong and reliable		.742
Q3.5 There is a reliable power supply at the location that I work remotely		.627
Q3.3 I have a suitable dedicated home office space		.522
Q3.4 There are many people living in my house which is disruptive to my work environment *		.346
Percentage variance extracted.	0.746	17.52
Cronbach's alpha	.851	.625 #

The * sign indicates reverse coded item and # shows alpha after dropping statement Q3.4. Composite variables TRAV (travel) and ENV (environment) were constructed by calculating the average of the agreement scores for the items included in the factors. These were considered adequately reliably measures.

4.3.6.3 Composite ICT factors

Factor analysis with promax rotation was applied to these 5 items. One factor was extracted and accounts for 47.20% of the variance in the data. A Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) of .745 and a significant Bartlett's test indicated that successful and reliable extraction took place and a reliable composite variable for ICT was formed by calculating the average of the agreement scores for the items included in the factor.

Table 4.8. ICT factors: loadings

Statement	Factor
	1
Q4.2 I have the necessary remote access tools to work remotely	.816
Q4.1 I have the necessary ICT equipment to work remotely	.803
Q4.5 I have the necessary data to work remotely	.677
Q4.4 I feel confident with security measures put in place by my organisation to secure and protect ICT devices for remote work	.624
Q4.3 Adequate support is available from the IT service desk for remote technical queries	.449
Cronbach's alpha	.771

4.3.6.4 Composite People factors

Table 4.9 shows the factor analysis with promax rotation was applied to these 5 items. Statements items Q5.2 and Q5.4 were reverse coded prior to this analysis. One factor which accounted for 37.24% of the variance in the data was extracted. A Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) of .743 and a significant Bartlett's test indicated that the data was adequate for a successful and reliable extraction. The * indicates the reverse coded item. A reliable composite variable PPL for people factors was con- structed by calculating the average of the agreement scores for the items included in the factor.

Table 4.9. People factors: loadings

Statement	Factor
	1
Q5.4 I am easily distracted when working remotely *	.735
Q5.2 I feel disconnected from teammates when working remotely *	.703
Q5.5 I am more productive when working remotely	.673
Q5.3 Working remotely improves my work-life balance	.514
Q5.1 I feel confident to conduct remote work without constant management super- vision	.33
Cronbach's alpha	.732

4.3.6.5 Testing the Composite variables.

One-sample t-test was applied to each of the composite variables i.e., ORG, TRAV, ENV, ICT and PPL. To evaluate if there was a significant agreement or disagreement. Table 4.10 provides the statistical measures applied for the outcomes. Figure 4.9 is a bar graph illustrates the significant agreement and disagreement scores for each variable.

Table 4.10. Composite factors

Construct	n	Mean (SD)	t	df	p-value
ORG	106	4.40 (0.472)	30.426	105	<.001*
TRAV	106	4.70 (0.627)	27.804	105	<.001*
ENV	106	4.17 (0.700)	17.216	105	<.001*
ICT	106	4.43 (0. 478)	30.787	105	<.001*

PPL	106	4.14 (0.670)	17.512	105	<.001*

In Figure 4.9, results from the one-sample t-test showed a significant agreement that the organization pro- vided sufficient support and effectively communicated remote work policies. There was also a significant agreement to considerable savings on travelling costs and time for remote workers. Furthermore, respondents significantly agreed that they have a suitable environment in which to work remotely, with the necessary ICT devices and have self-efficacy to work remotely without management supervision.

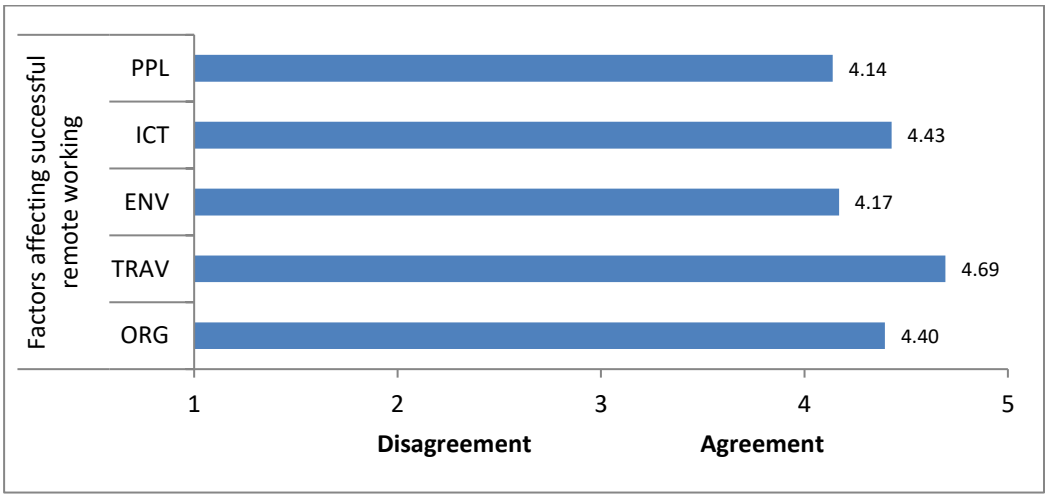


Figure 4.9 Significant agreement level for composite variables

4.3.7 Preference between office-based and remote work

The aim of the questions in sections three to five of the questionnaire were to determine whether the participating bank employees had a preference between working at the office or remotely. Based on how they perceive their success and productivity when working at home or the office. The one-sample t-test was also applied to the data and outcomes are reported in Tables 4.11 and 4.12 and Figures 4.10 and 4.11. The chi- square goodness-of-fit test was applied to test the final question that was asking how often the bank employees would prefer to work remotely. The results are shown in Table 4.13 and the bar graph.

4.3.7.1 Remote work success

There was consensus from participants that working remotely is regarded more successful than working at the office, more so by female participants. The Table 4.11 indicates the remote work successes.

Table 4.11. Success: one sample t-test

Responses as Frequency (%)					n	Mean (SD)	t	df	p-value
Compared to working at the office, working remotely is…									
Far less successful	A bit less successful	No differ-ent	A bit more successful	Far more successful					
1 (0.9)	10 (9.4)	12 (11.3)	28 (26.4)	55 (51.9)	106	4.19 (1.034	11.838	105	<.001*

In Table 4.11 shows that about 52% of the sample regarded remote work more successful than working at the office, 26.4% believe there was no difference between home and office work and only 10% considered remote work less successful. However, In Figure 4.10 there was a significant agreement that remote work was more successful than working at the office. A significant number of the respondents from the sample regarded working from home to be more successful than working at the office.

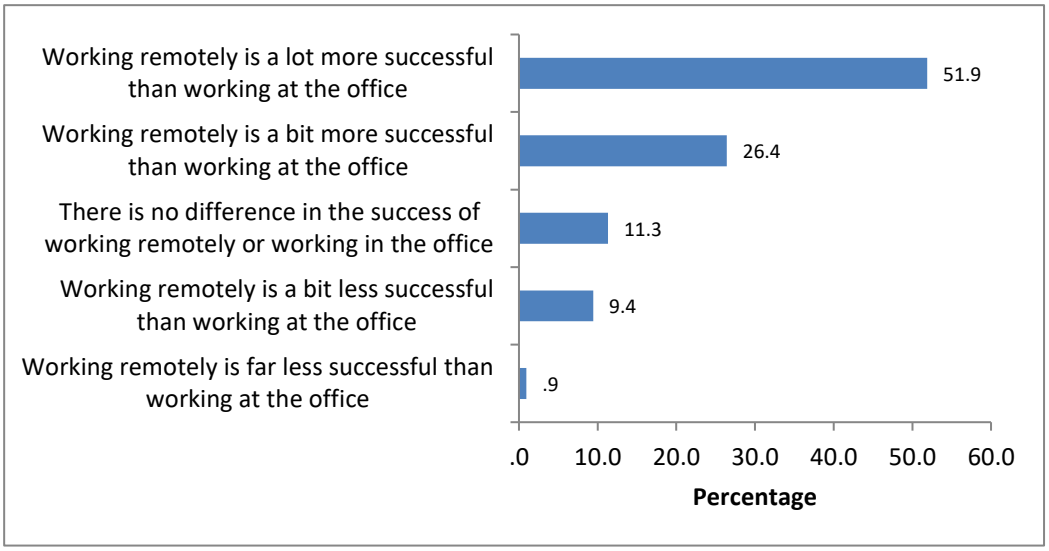


Figure 4.10 Remote work success

4.3.7.2 Remote work productivity

The statistics measures indicated that most respondents from the sample believed that teleworking from home was more productive than working at the office.

Table 4.12. Productivity: one sample t-test

Responses as Frequency (%)					n	Mean (SD)	t	df	p-value
Compared to working at the office, my productivity when working remotely is…									
Far less	A bit less	The same	A bit more	Far more					
-	7 (6.6)	17 (16.0)	24 (22.6)	58 (54.7)	106	4.25 (0.957)	13.501	105	<.001*

The Table 4.12 shows that the responses from 77.3% of the sample indicated that they felt a bit and far more productive teleworking. Whilst 16% believe there is no difference and the remaining 6.6% believe they are bit less productive working at remotely. The significance level of .05 and p-value <.001 verified that working from home was more productive than working at the office, according to the data analysis. This was also depicted by the visualization of response on the bar graph. The results are corresponding from Table 4.12 and Figure 4.11.

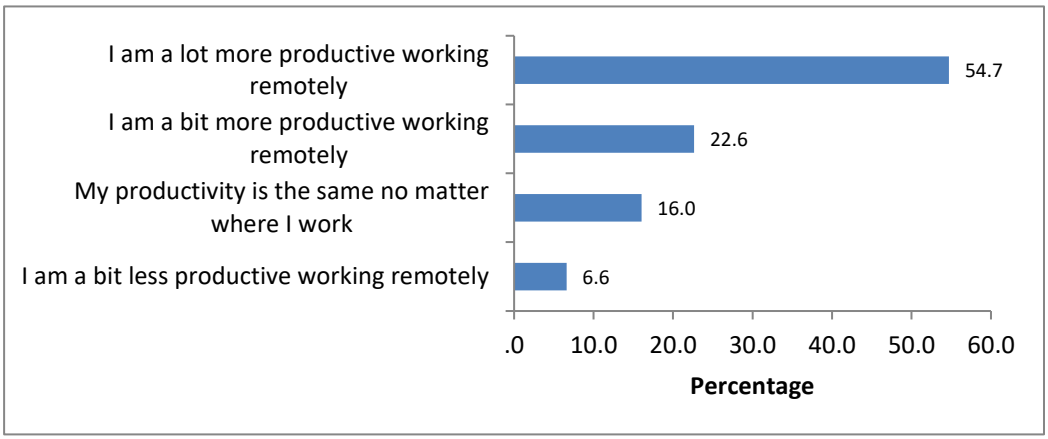


Figure 4.11 Remote work productivity

4.3.7.3 Remote work preference

This was the final question in the research questionnaire. To determine how often remote workers would like to work from the office. The chi-square goodness-of-fit was applied to the collected data, to determine which response were selected more than others. In Table 4.13, the 5-point Likert scale asking how often employees would like to work remotely.

Table 4.13. Preference: Chi-square goodness-of-fit

Statement	Responses as Frequency (%)					n	X^2	df	p-value
	Never	Seldom	Sometimes	Often	Always				
Q5.1 How often would you like to work from the office	12 (11.3)	44 (41.5)	37 (34.9)	10 (9.4)	3 (2.8)	106	11.565	4	<.001

In Figure 4.12, Numerous respondents indicated on the bar graph that they liked to visit the office infrequently. At the 0.05 threshold, the test's significance was produced. Rarely (41.5%), and occasionally (34%), were the most chosen responses. More than 70% of remote workers choose to work from home just seldom or never. 9.4% enjoyed visiting the office frequently, but only 2.8% chose to work there exclusively. The remaining 11.3% would rather not attend any meetings at all and work entirely from home.

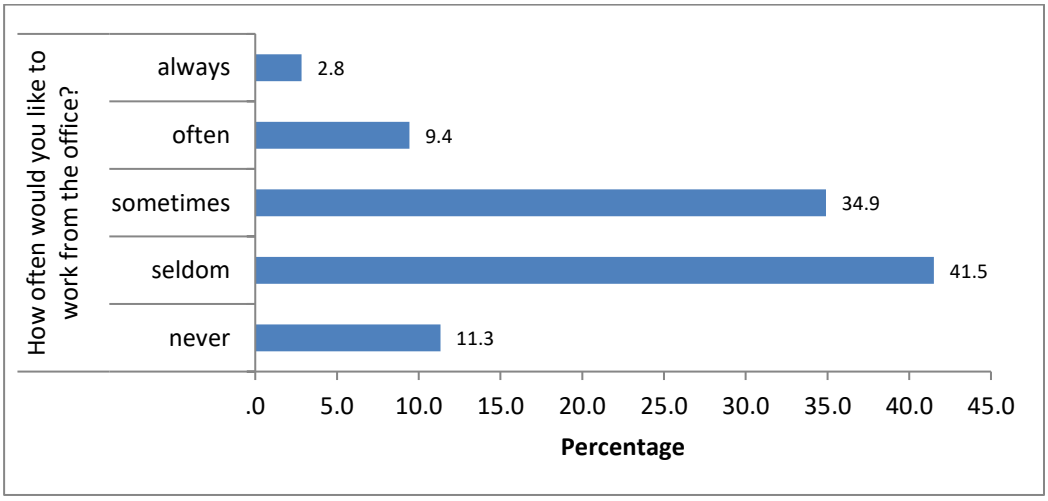


Figure 4.12 Remote work preference

4.4. Application of the results to Research objectives

This section provides a further analysis of the composite variables. To determine how each of the hypothesized factors impacted the success of remote work. This was done through a linear regression by following these steps:

- The dependent and independent variables were identified i.e., successful remote working and composite factors, respectively.
- The independent variables i.e., ORG, TRAV, ENV, ICT and PPL were individually tested to determine their impact on the dependent variable that is "remote work success".
- Then a multiple linear regression model was used to test all the composite variables simultaneously, to determine those with a significant impact on successful remote work. This subsequently indicated which factors exhibited the strongest and weakest impact on successful remote working, when they were all compared as a whole.

4.4.1. Linear regression for research Objective One:

The linear regression analysis aimed to determine the degree of impact that each factor had on successful remote work, which is the dependent variable. The study was conducted to test whether the proposed factors such as people, organization, ICTs, location, and environment affect the success of telecommuting for bank employees in Gauteng, South Africa. Table 4.14 demonstrates outcomes from assessing the full model of the critical success factors of remote work, to determine the weakest and strongest impacting remote work success.

Table 4.14 Individual factor- linear regression analysis

Independent variable	R^2	F	df1; df2	p-value	B (regression coefficient)	t	p-value
ORG	.007	.728	1; 104	.396	.182	.853	.396
TRAV	.063	7.034	1; 104	.009*	.415	2.652	.009*
ENV	.071	7.978	1; 104	.006*	.271	2.825	.006*
ICT	.040	4.389	1; 104	.039*	.436	2.095	.039*
PPL	.432	79.125	1; 104	<.001*	1.014	8.895	<.001*

The individual linear regression analysis yielded the outcomes summarized below. All the p-values denoted with the special sign * indicates significance at 0.05 level. Meaning that the results from the sample were significant enough to project to the population.

1) ORGANIZATIONAL Factors accounted for .7% (R^2= .007) of the variance in 'success' and was not a significant predictor of 'successful remote working', F (1, 104) = .728, p= .396, β = .182.
2) PEOPLE factors accounted for 43.2% (R^2= .432) of the variance in 'success', F (1. 104) = 79.125, p<.001. therefore, PPL was a significant predictor of 'success', β = .432, p<.001.
3) TRAVELLING accounted for 6.3% (R^2= .063) of the variance in 'success', F (1. 104) = 7.034, p=.009. TRAV was a significant predictor of 'success', β = .063, p=.009
4) ICT accounted for 4% (R^2 =.040) of the variance in 'success', F (1.104) = 4.389, p=.039. ICT was a significant predictor of 'success', β=.040, p=039.
5) ENVIRONMENT accounted for 7.1% (R^2 =.071) of the variance in success, F (1,104) = 7.978, p=006. ENV was a significant predictor of 'success' β=.071, p=006.

Table 4.15 All factor model - linear regression analysis

Independent varia-ble	R^2	F	df1; df2	p-value	B (regression co-efficient)	t	p-value
ORG	0.459	16.937	5;100	<.001*	-.355	-1.781	.078
TRAV					.037	.282	.779
ENV					.161	1.206	.231
ICT					-.005	-.024	.981
PPL					1.028	7.970	<.001*

In Table 4.15, the five independent variables accounted for 45.9% of the variance in 'success', F (5, 100) = 16.937, p<.001. When included in the model at the same time, PPL (people) was the only significant predictor of 'success', β = 1.028, p<.001.

4.4.2 Linear regression for research Objective Two:

A linear regression analysis was conducted to determine perceived productivity of remote workers of the bank. The regression was applied on each factor prior to testing all the factors together.

It is important to highlight that this analysis was testing objectivity of the results, as employee productivity was based on remote worker perceptions, rather than actual reality. The Table 4.16 shows that the participants responded based on their individual experiences.

Table 4.16 Individual factor - linear regression analysis

Independent var-iable	R^2	F	df1; df2	p-value	B (regression coefficient)	t	p-value
ORG	.029	3.121	1; 104	.080	.346	1.767	.080
TRAV	.080	9.000	1; 104	.003*	.431	3.000	.003*
ENV	.096	11.013	1; 104	.001*	.423	3.319	.001*
ICT	.074	8.287	1; 104	.005*	.544	2.879	.005*
PPL	.531	117.562	1; 104	<.001*	1.040	10.843	<.001*

There was significant agreement at 0.05, demonstrating that remote workers perceived their productivity was higher during remote work than when working at the office. Therefore, positively contributing to successful remote work.ORG accounted for 2,9% (R^2= .029) of the variance in 'success' and was not a significant predictor of 'successful remote working', F (1, 104) = .3.121, p= .080, β = .346.

1) TRAV accounted for 8% (R^2= .080) of the variance in 'success', F (1. 104) = 9.000, p=.003. TRAV was a significant predictor of 'success', β = .431, p=.003.
2) ENV accounted for 9.6% (R^2 =.096) of the variance in success, F (1,104) = 11.013, p=001. ENV was a significant predictor of 'success' β=.423, p=001
3) PPL accounted for 53.1% (R^2= .531) of the variance in 'success', F (1. 104) = 117.562, p<.001. PPL was a significant predictor of 'success', β = 1.040, p<.001.
4) ICT accounted for 7.4% (R^2 =.074) of the variance in 'success', F (1.104) = 8.287, p=.005. ICT was a significant predictor of 'success', β=.544, p=005

Table 4.17 All factor model - linear regression analysis

Independent vari-able	R^2	F	df1; df2	p-value	B (regression co-efficient)	t	p-value
ORG					-.200	-1.186	.239
TRAV					.043	.384	.702
ENV					.138	1.218	.226
ICT	**.545**	**23.985**	**5;100**	**<.001**	.040	.211	.833
PPL					1.015	9.278	<.001*

The table displays a linear regression with a 0.05 level of significance between productivity and successful remote work, indicating that productivity is a significant predictor of success for remote work according to employees.

4.4.3. Linear regression for research Objective Three:

To determine employee preference between office-based and remote work. This was done by testing for a correlation between employees' preferred location for work and their productivity and success when working remotely. The Spearman`s correlation test was be applied for this analysis.

Table 4.18 Correlation coefficient between work preference and productivity (sig, 2 tailed)

N (sample size) = 106	Q6. Rate your success with working re-motely?	Q7. Productivity impact on work location	Q8. Preference be-tween office and remote work
Q6. Rate your success with working remotely?	1.000 - -	.760 .000 -	.638 .000 -
Q7. Productivity impact on work location	.760 .000 -	1.000 - -	.571 .000 -

Q8. Preference between office and remote work	.638 .000	.571 .000	1.000 -

1) There was a strong positive correlation between perceived productivity and perceived success in working remotely (rho = .760, p<.001).
2) There was also a strong positive correlation between remote work preference, and both perceived success of working remotely (rho = .638, p<.001) and perceived productivity (rho = .571, p<.001)

The final analysis conducted was the ANOVA/Welch or independent sample t-test. This test was applied to determine any variance in the agreement to the composite construct across sample demographics. The results are discussed in the ensuing paragraphs.

Females (M=4.27) agreed significantly more than males (M=3.99) that they were able to work remotely, from a personal perspective (PPL), t (104) = -2.203, p = .030. The 54% of people that answered the questionnaire were female and they believed they were more productive working remotely and 57% females also believed working from home was more successful than working at the office. This was obtained from answers to questions 13 and 12 respectively.

There was a significant difference in agreement that the organisation prepared and supported the employee for remote working across age group, Welch (4, 25.958) = 6.305, p=.001. Games-Howell post hoc analysis showed that the 60+ age group agreed significantly more than the 21-29 age group (p=.007) and the 30-39 age group (p=.010).

There was a significant difference in agreement that the bank offered a conducive environment (ENV) for remote working across age groups, Welch (4, 32.492) = 17.020, p<.001. Games-Howell post hoc analysis showed that the 60+ age group agreed significantly more than all other age groups, p<.05 in each case.

There was a significant difference in agreement that they are prepared in terms of ICT for remote working across age group, Welch (4, 31.935) = 14.347, p<.001. Games-Howell post hoc analysis shows that the 60+ age group agrees significantly more than all other age groups, p<.05 in each case.

There was a significant difference in agreement that they have a conducive environment (ENV) for remote working across race, F (3, 102) = 5.294, p=.002. Tukey's post hoc analysis shows that Whites agrees significantly more than Blacks, p=.001.

There was a significant difference in agreement that the bank provided a conducive environment (ENV) for remote working employees, across marital status, F (4, 100) = 3.277, p=.014. Tukey's post hoc analysis revealed that married employees agreed significantly more than single employees, p=.001.

There was a significant difference in agreement that they are prepared in terms of Information Communication Technologies (ICT) for remote working across marital status, Welch (4, 100) = 2.477, p=.049. Tukey's post hoc analysis did not identify any specific differences. No differences were deduced across job levels.

4.5 Summary

The results from data analysis were presented in this chapter. After being transformed into a statistical tool, the data was analysed, understood, and reported using visual tools like output tables and bar graphs. The one-sample t-test, chi-square goodness-of-fit test, Spearman's correlation, independent samples t-test, and regression analysis were the SPSS tests used to assess the agreement or disagreement significance of univariate and composite independent variables in relation to the dependent variable. Each of these was carried out to answer the research objectives and questions. A discussion on the research results is presented in the final chapter of this report, together with recommendations for future research and a conclusion of the study.

Chapter Five – Discussion

5.1 Introduction

This is the final chapter of the thesis, and it provides the outcomes of all research objectives, procedure, and literature review. The research outcomes were based on the empirical evidence obtained from tested sample data of remote working bank employees. In application of critical success factors for remote working, the study could answer the following three sub-research questions:

- **RQ1** -What is the impact that people, organization, ICTs, location & environment factors have on the success of remote work, for employees of a bank in Gauteng, South Africa?
- **RQ2** - What is the perceived impact of working remotely on the productivity of bank employees in Gauteng?
- **RQ3**- How often do employees prefer office-based or remote working?

The research objectives were to evaluate which factors of the proposed conceptual framework were considered critical for remote work success, to determine employee perceptions on how remote work affect their productivity and their preferences between remote and office work. This chapter was concluded with a discussion on research outcomes, the limitations of the study and future research recommendations, about remote work.

5.2 The critical success factors of remote work Framework

The study presented a conceptual for achieving success in remote work. The framework consisted of four key elements: organizational factors, location and environment of remote work, information, and communication technology (ICT), and people factors. These variables were independently evaluated in relation to remote work success, which served as the dependent variable. The study found that the conceptual framework and its variables were important in achieving the research goals. This framework can also be beneficial for organizations that want to understand how their employees perceive remote and virtual work. The following sections discuss the vital success factors and their significance in the study.

5.2.1 People factors

The respondents showed consensus from the sample-one t-test was that respondents perceived themselves to have the confidence, self-efficacy and higher productivity when working remotely. The remote working employees also felt that remote work brought a balance to their home and work life, as suggested by Rimias (2021).

Respondents further perceived higher levels of productivity during remote work. Demographic outcomes showed that from the total number of 106 participating teleworkers, 53.8% of responses were from females, greater than the 46.2% male response rate. The greatest response rate was obtained from respondents aged 30-39, followed by the range of 40-49 years. This aligned to the age group of the active labour force. In contrast to socially accepted retirement age of 60+ often observed appropriate for exiting the labour market.

The ratio of married to single people was slightly higher as both yielded significant numbers compared to divorcees and widowed participants. This subsequently influenced the outcomes of the statistical analysis on the environment and location factors. Marital status is one of the socio-economic statuses that influences the home-work life balance of teleworking employees (Yikilmaz, 2023). However, there were variations to the agreement significant levels of amongst gender and age demographics. Respectively, to male remote workers, female remote workers expressed more satisfaction with their employment.

The research survey was circulated to participants working in different departments within the corporate and investment banking division of the bank. This was a highly specialized department that provided products and services to high-net-worth corporate clients. The bank expected its employees to consistently deliver high-quality services to meet contractual service level agreements with corporate clients. Therefore, the expectation was that employees possessed the relevant education and technical skills to effectively telework (Quade, 2022). It was not surprising that the demographic data on staff credentials and job level revealed that the CIB division required a high level of specialty. This collaborated findings from the literature review that suggested remote work is more suited to the fields of tech, healthcare, sales, customer service and education (Popkova et al., 2019). The bank in which this research was carried out offered technology products and services to corporate clients, in the sales, customer service and tech divisions. Higher paying remote jobs such as those held by the respondents in the corporate and investment banking department require more education and training. This was evident from the statistical results of the level of education for the participants of this research. Most of the sample held managerial and specialty positions with educational qualifications ranging from matric to PhD.

The findings on the impact of people on remote work success revealed that individuals have the capacity for efficient distant work, and they preferred remote working to working from the office. Productivity and successful remote work have a substantial positive association. Findings concur with literature, remote working were reported to have higher probability of attaining organizational and employee goals (Gohoungodji et al.,2022). According to the research result from the surveyed sample, people were discovered to be the most significant predictor of remote working success, in comparison to all other critical success factors recommended by the critical success factors of remote work framework.

5.2.2. Organizational factors

The study findings indicated that the remote working bank respondents had enough data, time, and power resources to complete successful remote work. Teleworking offered employees several potential ad- vantages, such as greater flexibility, autonomy, job satisfaction, productivity and employee morale, as well as lower turnover rates (Kuruzovich et al. 2021). Therefore, this allows the study to propose that the banking industry should consider the realignment of their remote working policies for staff retention and organizational growth and retention. When respondents were asked if the organization provided adequate communication channels to collaborate with managers, 56.6% strongly agreed, 40.6% agreed, 2.8% felt indifferent. No disagreement responses were received. More than 90% of the sample agreed that there were adequate collaboration tools provided by the organization for remote work, despite 63.2% of the respondents using their own data for remote work network connectivity. There was also a significant agreement to the organization providing clear communication to employees regarding the remote work policy. The statistical re- results from the organizational factors data set after statistical measures were applied, indicated that there was significant agreement that respondents felt supported by their managers when working remotely. When the organizational factors returned the least significance to remote work success when tested together with other critical success factors, i.e., people, ITCs, location, and environment. Even though literature and research results demonstrated an overlap suggested to exist between the organizational, people, and ICT factors (Rimias, 2021), the research outcomes demonstrated that organizational factors were not a strong predictor of remote work success.

5.2.3 ICT Factors

The study findings opine that many respondents pointed out that the ICT infrastructure was one of the necessities for the full functional domain to fulfill remote working. This concurred with literature as Lechman and Popowska, (2022) suggested that ICTs enabled work outside of conventional office locations in the current day, by creating a borderless and global labour market in which employees and employers can participate in.

The data analysis and validation provided a research outcome indicating that the sample population of the remote working bank employees did not experience disruptions during remote work. There was also a significant agreement to remote workers having the necessary ICT tools and data for remote work access. Respondents felt that the organization had implemented sufficient security measures to secure and protect their devices for telework. The research outcomes further indicated that the organization provided adequate support for remote working employees in terms of ICT tools and remote work policies. The overall outcome was a significant agreement for all ICT factors, aligning to the hypothesis in literature that ICTs were enablers of remote work.

Another additional finding from the ICT factors data set was that employees of age 60 and above were more likely than all other age groups to say they had a good remote work environment and sufficient ICT re- sources. The white ethnic group expressed the most significant agreement with having a suitable remote working environment in comparison to all other racial groups of the respondents. This concurred with telework literature that highlighted discrepancies between developed and developing economies, and subsequently socio-economic statuses of remote workers (Messenger, 2019).

Organizational factors were not observed to be a significant predictor of remote work success. This collaborated research findings of a study compiled by Mihalca, Irimiaş, & Brendea, (2021) to determine factors with significant impact on remote worker productivity, job satisfaction and performance during COVID-induced telework. Organizational support was found not to be a critical influence of remote employees' productivity in telework.

The ICT factors were regarded as the least contributing factors, with the organization being the lowest-ranking factor. ICT was a positive factor for remote working because ICT uses digital technologies such as systems, and technologies, including social media, mobile devices, and the cloud to fulfill remote working (Quade, 2022). This is in line with Messenger (2019) who postulate that ICT devices typically include laptops, tablets, and smartphones and the dispersion of the internet and world wide web access. All the results from the applied statistical tests indicated a significant level that is acceptable for generalization into the target population of the study.

5.2.3 Location and environment

There were two perspectives considered in addressing this variable, employees, and organizational benefits. The study's findings showed that participants thought working remotely saved them a lot of time and money on travel. For example, there has been an increase in personal travel and non-work-related energy use (Verelst, De Cooman & Verbruggen, 2023). Also, the organizations benefitted from saving on real estate costs, such as electricity bills and so forth, by working remotely (Bosua et al., 2017). The teleworker's remote working environment ranked as the second most crucial success factor. Participants said that the number of residents in a home did not interfere with telework. The rise of teleworking was attributed to changes in people's behaviour and space-time usage (Tokey & Alam, 2023).

5.2.4 Perceived productivity

The research findings indicated that many of the research participants preferred remote work over office work. Employees or respondents perceived remote working as the best option and have many positive impacts for increasing productivity.

A similar study conducted in a banking context found that employee productivity and performance depend on a host of factors, such as the nature of the work, employer, and industry characteristics, and home settings, with a majority reporting a positive impact and few documenting no difference or a negative impact (Anakpo, Nqwayibana & Mishi, 2023). This could have influenced their rating of perceived telework success and productivity, because of the preference biased. The findings also demonstrated that people were the most significant critical success factor of remote work. Future research can expand to determine the objectivity of this outcome. By evaluating personal employee attributes and conditions that drive remote work success. As was evident from the results those female employees have a stronger preference for remote work than their male colleagues. This was in line with the literature, female respondents showed greater overall satisfaction with working from home and a preference for working from home post-pandemic compared to male respondents, indicating a relationship between gender and their perceptions (Oo, Lim & Kim, 2023). This was highly intriguing since it allowed the researchers to suggest that the study's female participants are adept at multitasking as home workers, compared to easily distracted male counterparts.

5.3. Study limitations

This research study evaluated critical success factors of remote work for bank employees in Gauteng, in a specific branch and department. This was done using a constructed conceptual framework that underpinned the study. The framework consisted of “successful remote work” as the dependent variable to be evaluated against four independent variables and these were organizational, ICT, people, location, and environment factors. The framework was validated through quantitative analysis methods. This could be expanded by applying a mixed-methods approach that includes a qualitative analysis. To provide a more comprehensive analysis and objective outcome. To add depth to the scope of the current research findings.

Finally, the hypothesis that loadshedding is detrimental to telework success was not tested in this study. This was not one of the research objectives but discussed in chapter two. Therefore, correlation between remote work success and loadshedding could not be established and verified. The research participants did not report any negative impacts of power outages on telework. Despite the current loadshedding crisis experienced in South Africa.

This was hypothesized to disrupt remote work success. Future research in the topic of telework can be conducted to determine the impact of loadshedding on remote working employees and organizations. The study's findings did not offer any firm conclusions about whether remote work boosted worker productivity.

This was done since a respondent's perceived productivity as a remote employee might not be an accurate reflection of their real work productivity. Employee biases based on their preference for office-based versus remote work may also have an impact on survey replies related to productivity. Additionally, not all ICT workers may apply uniformly to the crucial criteria that were anticipated to be important to remote employees' effectiveness. This is because the study's remote participants' socioeconomic profiles and personal situations varied.

5.4 Recommendations and Future research

The target population and sample size for this research were significantly small. Due to the selected sampling strategy which informed by researcher`s limited time and resources constraints. The study was also only conducted for one specific organization in the Gauteng province of South Africa. As such, the research outcomes are not significantly objective to generalize on a global scale. The research problem can be further evaluated using a larger population size, where multiple organizations across different industry domains are invited to participate. The same study should be conducted using a larger population size from different organizations. This will add more valuable insights into the knowledge base of remote work.

5.5 Conclusion

The purpose, significance, and justification for the investigation were described in Chapter 1. In Chapter 2 (Literature Review), insights into the phenomenon under investigation, which was the critical success factors of remote work, were covered. Through conducting a literature review, the researcher gained an understanding of the main phenomenon being studied and identified gaps in existing literature. This informed the creation of research questions that addressed both the identification and defence of the proposed conceptual framework. In the study, the important success factors for remote work were effectively used as a reference for developing the primary research question, its sub-questions, and the research objectives. The methodology was discussed in Chapter 3. The study used a quantitative research methodology, and the researcher opted to use an online survey to gather data. The results were presented in Chapter 5, which also included the following three sections: discussion, limitations, recommendations, and conclusion.

This study affirms that the critical success factors for remote working were characterized by people, organization, ICTs, and employee perceptions. The study outcomes indicated that all the proposed critical success factors for remote work impacted the relevant outcomes, including the framework adopted. However, not all factors had a positive impact on remote work success, and their ranking varied.

Organizational factors were ruled out as significant predictors of telework success for the bank under study. Followed by ICT enables ranking in the second last place in order of importance. Environmental and travelling factors were respectively ranked in the second and third places, as critical success factors of remote work.

All the bank employees who took part in the study said they were marginally more successful and productive at work when they worked remotely. Also generally agreed upon was the fact that the bank offered all required ICT tools, gear, and management support for remote work to be successful. The actual remote workers themselves were said to be the most important and crucial success factor.

There was a consensus that employees prefer remote work over working at the office. Surveyed remote workers also regarded telework as more successful than working from the office, females agreed more than male respondents. Furthermore, the respondents indicated that they did not feel disconnected from colleagues, even though they still wanted to commute to the office on a minimal scale. The participants also agreed that remote work provided considerable savings on travel costs and time.

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Appendix 1: Questionnaire instrument

School of Management, Information Technology & Governance,
Discipline of Information Systems and Technology

MCom Full Research Project

Researcher: Pearl Mbali Hadebe (072 536 0026 / pearlhadebe@yahoo.com)

Supervisor: Dr Karunagaran Naidoo (031 260 3526 / Naidook82@ukzn.ac.za)

I am a master's student in Information Systems & Technology at the University of KwaZulu-Natal. You are requested to participate in a research project Title:

Evaluating critical success factors of remote work for Standard bank employees, in Gauteng, South Africa.

Your participation in this project is voluntary. You may withdraw from the project at any time. There will be no financial gain from participating in this project. Your personnel identity and responses will be maintained confidentially.

If there are any questions or concerns about participating in this study, please contact the researcher or my supervisor via the numbers provided above.

Thank you for taking the time to participate in this study. Your feedback is valuable and will contribute to the outcomes of the research.

Yours faithfully

Researcher's Signature: PM Hadebe Date: August 2022

This page should be retained by the participant

1

School of Management Information Technology and Governance,
Discipline Information Systems & Technology

M Com Research Project

Researcher: Pearl Mbali Hadebe (0725360026)
Supervisor: Dr Karunagaran Naidoo (031260 3526)

CONSENT

I _____ (full names of participant) hereby confirm that I understand the contents of this document and the nature of the research project, and I agree to participate in the research project. I also understand that I can withdraw from the project at any time.

_____ _____

Signature of Participant Date

This page should be signed and returned to the researcher

UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

Respondent number: _____

Evaluating critical success factors of remote work for Standard bank employees, in Gauteng, South Africa.

Researcher: Miss Pearl Mbali Hadebe (0725360026 / 208524360@stu.ukzn.ac.za
Supervisor: Dr Karunagaran Naidoo (0312603526 / naidook82@ukzn.ac.za)

School of Management, Information Systems & Technology and Governance

Discipline Information Systems & Technology
University of KwaZulu-Natal, Westville, South Africa

- Please be forthright in your answers.
- Please indicate your response to each Question by selecting the ONE option that best applies to you
- Please sign the letter of informed consent, giving the researcher permission to use the responses for this research project.

Section 1: Demographics

1.1. What gender were you assigned at birth?

Male	Female

1.2. Your age group

20 years or younger	21 – 29 years	30 – 39 years	40 – 49 years	50 – 59 years	60 years or older

1.3. To which ethnic group do you belong?

Black	Coloured	White	Indian/Asian	Other, Specify

1.4. What is your marital status?

Single	Married	Divorced/ Separated	Widowed	Other, Specify

1.5. What is your job level in the organisation? (Select ONE option only)

Executive	Senior Management	Middle Management	Senior Specialist	Specialist	Intern /Graduate	General support staff

1.6. What is your highest qualification?

National Senior certificate/ Matric	Certificate	Diploma	Undergrad Degree	Honours degree	Master's degree	PhD

Section 2: Factors affecting successful remote working

Organisational factors

2 Indicate your level of agreement with the following statements:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
2.1 I feel supported by my manager when working remotely					
2.2 A policy regarding remote working was clearly communicated to me					
2.3 The organisation has provided adequate collaboration tools for remote work					
2.4 We have regular virtual work meetings to enable us to deal with queries or problems that arise					
2.5 I am able to communicate with my manager/superior if the need arises					
2.6 I am personally responsible for my data connection when working remotely.					

Location and Environmental factors

3 Indicate your level of agreement with the following statements:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
3.1 Remote working allows me to save CONSIDERABLY on travelling time					
3.2 Remote working allows me to save CONSIDERABLY on travel costs					
3.3 I have a suitable dedicated home office space					
3.4 There are many people living in my house which is disruptive to my work environment					
3.5 There is a reliable power supply at the location that I work remotely					
3.6 The network connectivity at my remote work location is strong and reliable					

ICT factors

4 Indicate your level of agreement with the following statements:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
4.1 I have the necessary ICT equipment to work remotely					
4.2 I have the necessary remote access tools to work remotely					
4.3 Adequate support is available from the IT service desk for remote technical queries					
4.4 I feel confident with security measures put in place by my organisation to secure and protect ICT devices for remote work					
4.5 I have the necessary data to work remotely					

People factors

5 Indicate your level of agreement with the following statements:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
5.1 I feel confident to conduct remote work without constant management supervision					
5.2 I feel disconnected from teammates when working remotely					
5.3 Working remotely improves my work-life balance					
5.4 I am easily distracted when working remotely					
5.5. I am more productive when working remotely					

Section 3: Successful remote working

Successful remote working refers to meeting work deadlines and attaining high standards of work while working remotely

6 Compared to working on location / at the office, how would you rate your success with working remotely? (Select ONE option only)

Working remotely is far less successful than working at the office	Working remotely is a bit less successful than working at the office	There is no difference in the success of working remotely or working in the office	Working remotely is a bit more successful than working at the office	Working remotely is a lot more successful than working at the office

Section 4: Work productivity

7 Indicate the effect of where you work on your productivity

Compared to working in the office/on location:

I am far less productive working remotely	I am a bit less productive working remotely	My productivity is the same no matter where I work	I am a bit more productive working remotely	I am a lot more productive working remotely

Section 5: Preference between remote and office-based work

8 Indicate your level of agreement that you prefer working remotely to working in the office:

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

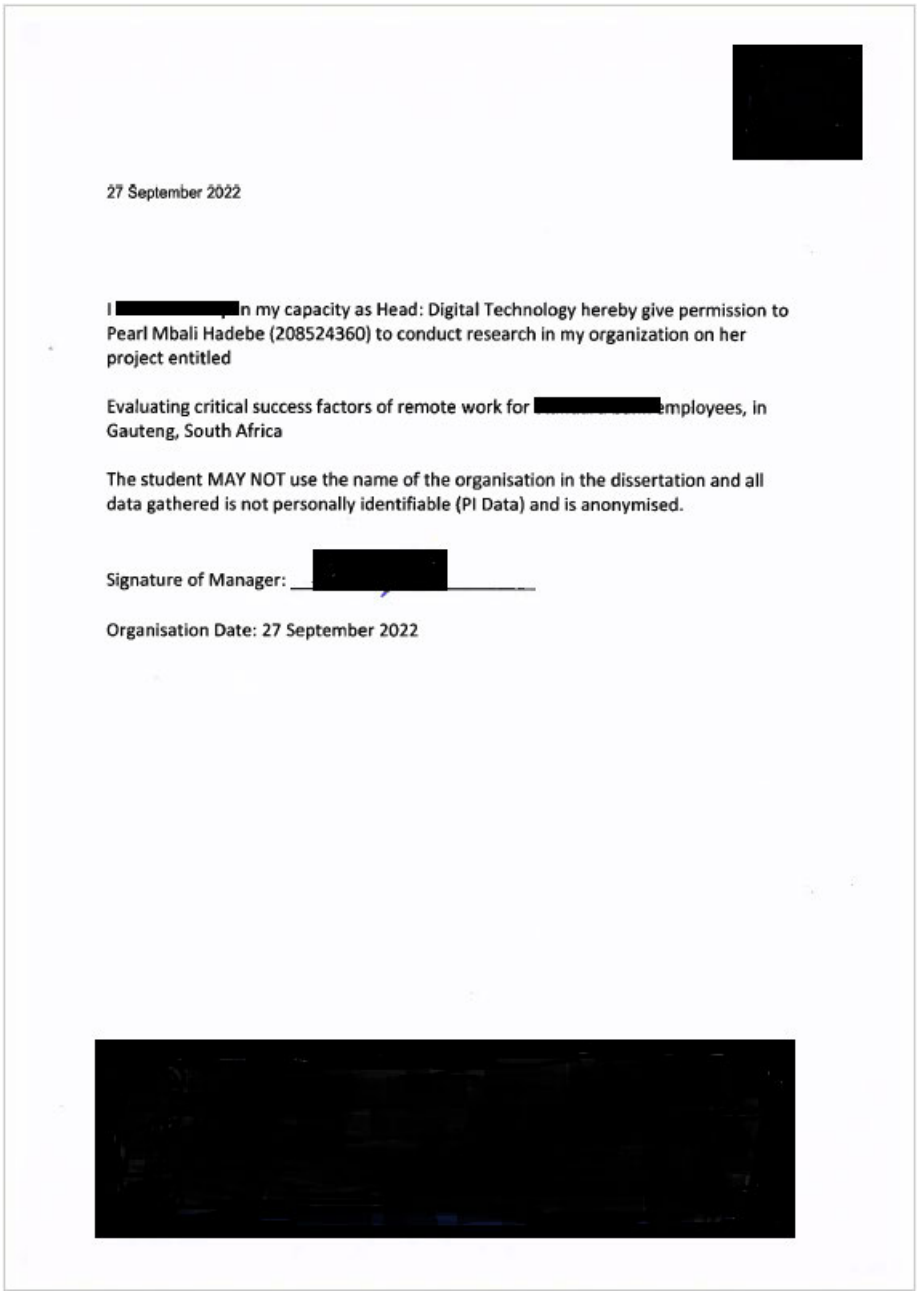
9 Indicate how often you would like to work from the office, if you had a choice:

Never	Seldom	Some of the time	Most of the time	All of the time

THANK YOU FOR YOUR TIME

Appendix 2: Gatekeeper approval letter

The company name and logo have been redacted due to confidentiality.



[redacted]

27 September 2022

I [redacted] in my capacity as Head: Digital Technology hereby give permission to Pearl Mbali Hadebe (208524360) to conduct research in my organization on her project entitled

Evaluating critical success factors of remote work for [redacted] employees, in Gauteng, South Africa

The student MAY NOT use the name of the organisation in the dissertation and all data gathered is not personally identifiable (PI Data) and is anonymised.

Signature of Manager: [redacted]

Organisation Date: 27 September 2022

[redacted]

Appendix 3: Ethical clearance letter

UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

11 November 2022

Pearl Mbali Hadebe (208524360)
School Of Man Info Tech & Gov
Westville Campus

Dear PM Hadebe,

Protocol reference number: HSSREC/00004856/2022
Project title: Evaluating critical success factors of remote work for bank employees, in Gauteng, South Africa.
Degree: Masters

Approval Notification – Expedited Application

This letter serves to notify you that your application received on 06 October 2022 in connection with the above, was reviewed by the Humanities and Social Sciences Research Ethics Committee (HSSREC) and the protocol has been granted **FULL APPROVAL**.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number. PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

This approval is valid until 11 November 2023.
To ensure uninterrupted approval of this study beyond the approval expiry date, a progress report must be submitted to the Research Office on the appropriate form 2 - 3 months before the expiry date. A close-out report to be submitted when study is finished.

HSSREC is registered with the South African National Research Ethics Council (REC-040414-040).

Yours sincerely,

Professor Dipane Hlalele (Chair)

/dd

Humanities and Social Sciences Research Ethics Committee
Postal Address: Private Bag X54001, Durban, 4000, South Africa
Telephone: +27 (0)31 260 8350/4557/3587 **Email:** hssrec@ukzn.ac.za **Website:** http://research.ukzn.ac.za/Research-Ethics
Founding Campuses: Edgewood Howard College Medical School Pietermaritzburg Westville