

**THE TRANSITION EFFECT FROM TRADITIONAL TO VIRTUAL OFFICE: A CASE
OF THE SOUTH AFRICAN CIVIL AVIATION AUTHORITY**

by

Lungiswa Blanche Felicity Mantsho

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DEDICATION

This work is dedicated to my beloved family, with special appreciation to my parents, Basi Cecil Nonqane and Ntlafatso Mary Nonqane, whose unwavering love and support have been the bedrock of my journey.

I am also deeply grateful for the incredible love, support, and encouragement from my cherished children, Reatlegile Liso Mantsho and Rorisang S'Qamo Mantsho. Their presence in my life is my greatest gift, and their belief in me has fuelled my determination to succeed.

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ABSTRACT

Globally, industries have been forced to adjust to the “new normal” of operations introduced by the COVID-19 pandemic. This paradigm shift has imposed new business ways and has significantly impacted work environments. Traditional office work relied on physical interactions and swiftly transitioned to virtual operations. The aftermath of the pandemic has introduced various dynamics in the workplace. The primary objective of this study was to determine and comprehend the experiences of SACAA employees as they transitioned from a traditional office environment to virtual work. The study examined the organisation’s experiences where virtual work has been implemented and analysed whether these adjustments have had positive or negative effects on strengthening SACAA’s operations.

A qualitative, exploratory and phenomenological approach involving 25 participants was employed. The primary participants, selected for face-to-face semi-structured interviews, included two Executive Managers, three Senior Managers, four Operational Management Employees, one Quality Specialist, one Project Specialist, one International Civil Aviation Organisation (ICAO) Specialist, one Information Technology (IT) Specialist, two Administrators and seven Inspectors. Additionally, three employee members who provided support were interviewed. The researcher retrieved the contact details of all participants from the SACAA website. Qualitative data were transcribed, and thematic analysis was conducted to identify key themes. The study provided recommendations to ensure that SACAA and its employees gain valuable insights for successfully managing a virtual workforce.

The findings revealed seven key themes. Through an in-depth analysis, these themes highlighted the complex dynamics of virtual work, especially in a unique context of COVID-19 pandemic. SACAA employees showed different levels of comfort with digital tools and virtual collaboration platforms. Some employees appreciated the flexibility and convenience of virtual work, while others were concerned about sustaining productivity and balancing work life dynamics outside the traditional office environment.

KEY TERMS

Title of thesis/dissertation:

THE TRANSITION EFFECT FROM TRADITIONAL TO VIRTUAL OFFICE: A CASE OF THE SOUTH AFRICAN CIVIL AVIATION AUTHORITY

KEY TERMS: Traditional workplace, virtual workplace, hybrid model, teleworking, telecommuting COVID-19 pandemic, transition.

ACRONYMS

AFCAC	African Civil Aviation Commission
ASI	Air Safety Infrastructure
ASO	Aviation Safety Operations
CARS	Civil Aviation Regulations
CATS	Civil Aviation Technical Standards
CE	Critical Elements
DCA	Director of Civil Aviation
DoT	Department of Transportation
ESG	Environmental, Social, and Governance
GRI	Global Reporting Initiative
ICAO	INTERNATIONAL CIVIL AVIATION ORGANISATION
IMS	Integrated Management System
IOC	International Olympic Committee
IPA	Interpretative Phenomenological Analysis
IT	Information Technology
KPI	Key Performance Indicators
OHS	Occupational Health and Safety
PFMA	Public Finance Management Act
QMS	Quality Management System
RASG	Regional Aviation Safety Groups
RSOO	Regional Safety Oversight Organisations
SACAA	SOUTH AFRICAN CIVIL AVIATION AUTHORITY
SARP	Standards and Recommended Practices
SLA	Service Level Agreement
SMS	Safety Management System
UAS	Unmanned Aerial Systems
UN	United Nations
WFH	Working from Home

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CHAPTER 1

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 INTRODUCTION

The COVID-19 pandemic pushed organisations to implement more flexible working conditions. According to Savić (2020), 81% of the global workforce encountered partial or complete employment lockdown during the pandemic, leading many organisations to introduce working from home with limited resources. This unexpected event caught organisations off-guard and revealed their lack of readiness for virtual work. In the contemporary business landscape, the integration of virtual services has emerged as a pivotal driver, endowing organisations with a distinct competitive edge on a global scale (Savić, 2020). Vogel and Yeo (2021) note that organisations have faced challenges in transitioning to virtual work due to outdated technology and limited employees' telework experience.

Additionally, organisations must consider unforeseen challenges that a virtual workforce may encounter (Vogel & Yeo 2021). While numerous studies have investigated traditional office and virtual work in other industries, limited research explores the virtual workplace in the aviation industry. According to de Lucas Ancillo, del Val Núñez, and Gavrila (2021), it is crucial to recognise the influences and methods that facilitate the transformation to a virtual work environment.

On December 7, 1944, 54 states founded the International Civil Aviation Organisation (ICAO), a specialised agency of the United Nations (UN), to oversee the management and governance of the Chicago Convention on International Civil Aviation (UN.org, 2009). To ensure a safe, effective, secure, economically viable, and environmentally responsible civil aviation sector, ICAO collaborates with the 193 Member States of the Convention and industry organisations to develop international standards and recommended practices (SARPs) (UN.org, 2009), according to UN.org, (2009). ICAO Member States use these SARPs and policies to ensure that their domestic civil aviation operations and laws comply with international standards, enabling more than 100,000 flights per day in the global aviation network to run safely and reliably globally. Alongside various priorities and programmes, ICAO coordinates assistance and capacity-building

for states to support numerous aviation development objectives. This often requires physical interaction and the deployment of skills from one member state to another.

The COVID-19 pandemic disrupted these programmes; The disruption primarily stemmed from the widespread restrictions on international travel, which impeded the traditional methods of physical interaction and the deployment of skills (Matson, McElroy, Lee, & Circella, 2023). The necessary measures implemented to curb the spread of the virus, such as lockdowns, social distancing, and travel restrictions, hindered the smooth execution of programs that relied on direct engagement and skill transfer (Sarpong, 2023). These limitations significantly impacted the ability of ICAO to facilitate in-person support and collaborative initiatives among member states, creating a notable setback in the progress of aviation development objectives.

According to UN.org, (2009) ICAO also developed global plans to coordinate multilateral strategic progress for safety and air navigation, monitors and reports on numerous air transport sector performance metrics and fulfils its core function of resolving consensus driven international SARPs and policies among its Member States and industry. As a signatory state of ICAO, South Africa is committed to cooperating with other nations to promote secure skies. The Department of Transport coordinates this effort, and all state aviation agencies must collaborate to fulfil this duty. Under the Civil Aviation Act, 2009 (Act No. 13 of 2009), SACAA is authorised to enforce ICAO standards for aviation safety and security.

Contracting ICAO states must consider the Critical Elements (CE) for safety and security oversight when establishing and implementing a system for supervision (ICAO Doc 9734a). Critical elements are essential for successfully implementing safety and security-related policies and procedures. They are tools for advancing safety and security in an oversight system. States are expected to execute the critical elements of safety and security oversight in a manner that acknowledges the shared responsibilities of the state and the aviation community. While safety and security oversights are performed on all critical elements, some oversights cannot be conducted virtually. Therefore, SACAA had to provide safe and secure methods to achieve business without compromising compliance during the COVID-19 pandemic.

Organisations must prioritise improving employees' performance, implementing virtual work as part of their policies, and enhancing talent management practices (Younas & Bari, 2020). The COVID-19 pandemic has surprised everyone, and the situation has undergone a radical change since March 2020, significantly transforming the present-day workplace post-COVID-19 (World Economic Forum, 2020b, 2020a). It is unlikely that things will revert to pre-COVID-19 levels, and researchers are currently working on developing guidelines for this new workplace, which seemed unimaginable just a few months before (McKinsey, 2020b).

Before the pandemic, researchers found that some workers in wealthy industrialised countries could work from home, and 80% expressed a desire to do so occasionally (Fayard, Weeks & Khan, 2021). In the pre-pandemic era, most businesses viewed the office as a place for people to gather and work. However, post-pandemic, the office will primarily serve as a space for completing tasks and conducting routine meetings, particularly for knowledge workers (Fayard et al., 2021). With the increasing functionality of information and communication technologies, employees can work from home. According to Ahlsröd and Fridén (2021), previous studies on virtual work have not adequately considered the current context.

Many employees work from their preferred workspace, which may include their home, office, or co-working space, depending on the nature of their work tasks (Palumbo, 2020). This arrangement can positively impact workers' health, family life, and overall well-being. While many individuals have successfully adapted to and embraced this change, some struggle to establish clear boundaries between working and non-working hours. Increased working hours and work-life conflict are likely to be experienced by certain employees (Palumbo, 2020). For instance, virtual workers are often expected to respond to urgent tasks and after-work emails in today's hyper-connected world, leading to a blurring of work and leisure time.

According to a recent study by Ro (2020), it is anticipated that the world of work will significantly shift toward hybrid work in the post-COVID-19 era, with hybrid work becoming the "new normal" to some extent. Employees increasingly work in hybrid offices, which combine the home office space with traditional office buildings. This trend is particularly prominent among highly educated and well-paid workers. The feasibility

of adopting virtual work largely depends on whether a job involves tasks and activities that can be completed without the physical presence of workers on-site (Lund, Madgavkar, Manyika & Smit, 2020).

This study aims to explore the impact of the COVID-19 pandemic on traditional work approaches compared to the integration of virtual work methods within the SACAA framework. Specifically, the research will analyse how SACAA employees have transitioned to virtual work and systematically investigate the challenges associated with practising virtual work in the SACAA environment.

The increasing demands and requirements of the virtual workforce have prompted many organisations to restructure their processes and policies to align with this new way of working (Younas & Bari, 2020). This chapter provides an overview of the background and rationale for the research topic, presents the problem statement and research questions, outlines the general and specific theoretical and empirical objectives, discusses the paradigm perspective that guides the study's scope, describes the research design and methodology, and concludes with an outline of the planned study.

1.2 BACKGROUND TO AND MOTIVATION OF THE STUDY

The world is undergoing undeniable change, and the anticipation of the Fourth Industrial Revolution has been a topic of intense debate over the years. Organisations traditionally rely on a nine-to-five workforce, operating in controlled and easily manageable environments (Waldorf, 2019). Technological advancements have introduced cost-saving measures for organisations, and virtual work is not a new concept that emerged solely due to the pandemic (Dittes, Richter, Richter, & Smolnik, 2019). However, it is a concept that many organisations were unprepared for and had to embrace rapidly in response to the pandemic.

The increased focus on virtual work has highlighted the importance of change in the traditional workplace. Organisations must ensure that their employees are equipped and can function effectively in this new way of working. Flood and Klausner (2018) state

that transitioning from a command-based hierarchy to an officially classified culture requires training and commitment. Despite the challenges associated with virtual work environments, an increasing number of employees have come to view virtual work as a regular part of their profession rather than a privilege (Flood, 2019).

Considering the evolving global work landscape, it is anticipated that organisations in South Africa and worldwide will need to adopt measures to navigate the transitions arising from these changes smoothly. Organisations are responsible for adeptly handling their operations amid diverse changes and external challenges by formulating and executing operational policies (Younas & Bari, 2020). The advent of technology has significantly reshaped the organisational terrain, compelling them to adjust to these transformations.

Furthermore, the successful management and implementation of a virtual workforce necessitates providing relevant resources and making substantial investments in technology. Organisations need to realign their objectives to align with the evolving work patterns and mitigate associated risks. The advent of technology has enhanced flexibility in numerous organisations, diminishing the relevance of traditional office setups. According to Koehler, Philippe, and Pereira (2013), as cited in Waldorf (2019), technological progress has reshaped the workplace, leading to novel organisational structures that no longer mandate employees to operate within traditional office settings.

1.2.1 The Traditional Workplace

The traditional workplace refers to a physical location, commonly known as an office, where employees work within set hours (Flood, 2019). It is the structure or place where individuals perform their job duties (Cambridge Dictionary, 2020). Organisations traditionally relied on face-to-face interaction among their workforce, facilitating easy monitoring and evaluation of employee performance. In a traditional work setting, employees are usually co-located, working near one another (Waldorf, 2019). This environment allows for peer support and the development of strong relationships, fostering a sense of camaraderie and preventing feelings of isolation and intimidation. Hill, Ferris and Mårtinson (2003) and Koehler, Mikosz, Molosh, Patel and Hashino (2013), as cited in Waldorf (2019), argue that traditional work environments are

characterised by direct physical contact between colleagues and management. Managers can provide support, allocate resources, and supervise employees in person. Gill (2019) adds dimensions to the traditional work environment, such as social relationships, collaboration, creativity, training, motivation, engagement, and personal growth.

The traditional office model has proven to be financially cumbersome for organisations, prompting the emergence of modern rational trends. Consequently, physical office footprints have steadily diminished, with employees fulfilling their duties in spaces smaller than three square meters (De Lucas Ancillo et al., 2021). While this strategy aimed to optimise space utilisation, it has presented new challenges, particularly regarding the well-being of employees in cramped environments. Consequently, organisations have been compelled to seek solutions that balance the interests of the organisation with the well-being of its employees.

The shift towards embracing virtual work has become an imperative for many organisations today, necessitating a departure from their comfort zones. Overcoming numerous challenges associated with managing traditional and physical work modes has been crucial in this transition (Kramer & Kramer, 2020).

1.2.2 The Virtual Work Environment

In virtual work, employees primarily carry out their tasks from home and communicate through various communication channels (Virtual Working, 2018). According to Savić (2020), working from home involves employees performing their functions outside the physical boundaries of the organisation's office. Savić introduces four attributes to support this definition: (1) the individual is an employee or employee's member of the organisation, (2) there is actual work engagement with the company on specific tasks, (3) the work is conducted outside the organisation's physical premises, and (4) telecommunication is used to communicate with the employer.

Additionally, Prasad, Mangipudi, Vaidya, and Muralidhar (2020) define virtual work as work carried out by professionals outside the traditional office environment, where they can be productive and maintain a healthy work-life balance. This concept is based on the notion that work can be performed from any location, allowing employees the

freedom and control to fulfil their job responsibilities while attending to their personal lives.

Other studies have emphasised the technological aspect of virtual work, referring to terms such as “teleworking” and “telecommuting,” which highlight the employees’ ability to execute their tasks virtually using technology to connect with the office (Raišienė, Rapuano, Varkulevičiūtė, & Stachová, 2020). Schalow (2020) acknowledges that flexible working arrangements have become ingrained in American culture. Hickman and Robison (2020) further support this notion, stating that the work culture is shifting, with managers and employees increasingly favouring a more versatile working environment. Virtual work is increasingly prevalent within our work culture (Schalow, 2020).

1.2.3 Advantages of a Virtual Workforce

The increasing pressure on organisations to transition to virtual work has sparked a debate regarding whether this new way of working will become the new norm worldwide (Younas & Bari, 2020). This debate has reached new heights, with differing perspectives emerging. The landscape of virtual work has garnered considerable attention, with proponents asserting its enduring presence, while sceptics maintain a more cautious stance (Berlin, 2021). This divergence in perspectives on the future of virtual work has been attributed to disparities in perceptions and attitudes towards this transformative work paradigm (Berlin, 2021; Byrvärlden, 2020; Hedström, 2020; it-kanalen, 2020; Katheryn, 2020; St, 2021; Zanardi, 2020).

There are several advantages associated with a virtual workforce. Increased flexibility: Virtual work allows employees to manage their schedules and work from anywhere. This flexibility can improve work-life balance and boost job satisfaction (Raišienė et al., 2020). Virtual work eliminates the need for a physical office space, reducing organisational overhead costs. It can also result in savings on commuting expenses for employees.

From an organisational standpoint, notable cost savings are realised in rental expenses, given that virtual workers do not necessitate physical office space. These savings are apparent for full-time and part-time telecommuters (Dittes, Richter, & Smolnik, 2019).

Organisations increasingly acknowledge the financial advantages of empowering their employees to carry out their duties virtually (Manko, 2019).

Access to a global talent pool: With virtual work, organisations can tap into a wider talent pool beyond their local geographical area. This allows them to hire the best candidates regardless of location, leading to a more diverse and skilled workforce (Manko, 2019). Virtual work provides organisations with a level of resilience during unforeseen events or disruptions, such as natural disasters or pandemics. It allows business operations to continue even when physical office spaces are inaccessible.

Virtual work is increasingly permeating organisations, collaboration, and communication tools. Advancements in technology have made it easier for virtual teams to collaborate and communicate effectively (Raišienė et al., 2020). Virtual meetings, video conferences, and project management tools enable seamless collaboration among team members regardless of their physical location. The virtual workforce brings distinct benefits, including a decrease in pollution, increased productivity, reduced office expenses, and lower travel expenses (Prasad, Mangipudi, Vaidya & Muralidhar, 2020; Spagnoli, Molino, Molinaro, Giancaspro, Manuti & Ghislieri, Molino, 2020; Raišienė et al., 2020).

Improved employee well-being is another significant advantage of virtual work. It can contribute to better employee well-being by reducing stress related to commuting, providing a more flexible work environment, and allowing employees to create a personalised workspace that suits their needs and preferences (Smith, 2020).

Enhanced productivity is also a notable aspect of virtual work. It can often increase productivity levels (Molino, 2020). Employees may experience fewer distractions and interruptions than commonly found in a traditional office setting, allowing them to focus on their tasks and deliver results more efficiently. From an employee perspective, according to Prasad et al. (2020), virtual work allows employees to enhance their skills through training and development, pursue their passions, and experience less anxiety than those working in a traditional office environment.

However, managing the virtual workforce effectively requires a management approach and strategy shift. Raišienė et al. (2020) emphasise the importance of providing a healthy work-life balance for employees, which reduces anxiety related to reporting, management control, and travel time. Virtual workers are empowered by creating and controlling their work environment. Organisations face challenges keeping employees engaged, involved, and connected in the virtual setting (Oliver, 2021).

1.2.4 The Disadvantage of a Virtual Workforce

Hickman and Pendall (2018) highlight the challenges in managing key performance areas such as development, training, communication, and team building within a virtual workforce. Without the physical presence and face-to-face interaction, these aspects become more complex to address effectively. The lack of clear guidelines and control in the virtual work environment can exacerbate these challenges, leading to a lack of discipline and difficulty in establishing a clear boundary between work and leisure (Raišienė et al., 2020).

In addition, virtual work presents unique difficulties for employees. The absence of regular in-person interactions may leave them feeling isolated and disconnected from their colleagues, which can affect team cohesion and morale. Coping with workload and managing tasks virtually can also be challenging, particularly for individuals who may not have access to adequate resources or support systems within a small team setting (Rysavy & Michalak, 2020). Furthermore, virtual employees may encounter obstacles in acquiring new skills and knowledge. The absence of in-person training and mentoring opportunities can hinder their professional development and limit their ability to adapt to evolving job requirements (Raišienė et al., 2020; Rysavy & Michalak, 2020). These limitations can have implications for career growth and advancement within the organisation.

Studies have shown that regions with a higher prevalence of virtual work often experience adverse effects on employees' workloads. Increased work demands, extended working hours, and blurred boundaries between work and personal life can result in work-life imbalance and heightened stress levels (Charalampous, Grant, Tramontano & Michailidis, 2019). The expectation of being constantly available and

responsive, including attending to work-related tasks beyond regular working hours, can lead to work-related fatigue and impact employee well-being (Palumbo, 2020).

Organisations need to address these challenges and find strategies to manage virtual teams effectively. This may involve implementing clear guidelines, providing adequate support and resources, fostering communication and collaboration through virtual platforms, and prioritising employee well-being and work-life balance (Rysavy & Michalak, 2020). By addressing these concerns, organisations can mitigate the disadvantages of virtual work and create an environment that supports employee engagement, productivity, and overall satisfaction.

Virtual work can increase working hours and work-life conflict for employees. In today's hyper-connected world, virtual employees are often expected to be available for urgent tasks and respond to work-related emails outside regular working hours (Raišienė et al., 2020). This can blur the boundaries between work and leisure, leading to challenges in achieving a healthy work-life balance (Palumbo, 2020).

A study highlighted by BBC News (2021a) found that many employees struggle to balance their work and personal lives, mainly when working in flexible environments that may inadvertently extend working hours. However, the same study also noted that individuals who worked from home or virtually at least one day per week experienced better work-life balance (BBC News, 2021a).

Further research by Charalampous, Grant, Tramontano and Michailidis (2019) and Molino, Spagnoli, Molinaro, Giancaspro, Manuti, and Ghislieri (2020) supports these findings, revealing that employees often face difficulties in attaining work-life balance and may end up working outside of regular hours to meet organisational demands. This can have negative consequences on their personal lives and overall well-being. Additionally, the expectation to respond to work-related emails after regular working hours can contribute to feelings of anxiety among employees.

It is crucial for organisations to acknowledge and address these challenges to support their virtual workforce effectively. Encouraging clear boundaries between work and personal time, promoting regular breaks and downtime, and fostering open

communication about workloads and expectations can help mitigate the negative impacts of increased working hours and work-life conflict (Raišienė et al., 2020). Supporting employees' well-being, offering resources for managing stress and maintaining a healthy work-life balance are essential considerations in the virtual work environment.

1.2.5 Workplaces post COVID-19 Pandemic

In African countries like Egypt, which have historically had low percentages of virtual work, research indicates a significant increase in the number of people working from home due to the global COVID-19 pandemic (Jelinčić, 2021). Many organisations have traditionally followed an office-based work model, separating work and home life. However, COVID-19 pandemic has profoundly impacted various aspects of the workplace, reshaping the nature of work in terms of its forms, capacity, pace, and execution rate. Savić (2020) highlights that digital transformation is not solely about technology; it requires a digital mindset from the workforce. Organisations worldwide have had to redesign their standard processes to prevent the spread of the virus and adapt their business operations to comply with lockdown guidelines imposed by the virus (Auer, 2021; Caligiuri, De Cieri, Minbaeva, Verbeke, & Zimmermann, 2020). These uncharted waters have presented new challenges and opportunities for organisations and their employees.

The global COVID-19 pandemic has forced organisations to adopt more flexible working arrangements. This sudden shift caught many organisations off-guard, highlighting their lack of preparedness for virtual work across various industries (Wang, Qian & Parker 2021). However, virtual work has become a crucial competitive advantage for organisations worldwide, leaving them with little choice but to embrace this growing phenomenon as effectively as possible (Spataro, 2020).

1.2.6 Virtual Workforce Transformation

The diverse and highly competitive work environment we face today necessitates the transformation of organisations to adapt to new opportunities and survive in the market (Lees & Dhanpat, 2021). Managers play a crucial role in aligning strategies with employee motivation. As organisations transition to virtual work, managers must recognise that the virtual workforce requires a different management approach than

traditional office employees. Effective management of the virtual workforce can be achieved through the implementation and adoption of digitisation within the organisation (Berber, Đorđević, & Milanović, 2018).

To facilitate the transformation to a virtual workforce, organisations should consider the following suggestions:

- **Develop a clear virtual work policy:** Establish a comprehensive policy that outlines guidelines, expectations, and best practices for virtual work. This policy should address communication protocols, work hours, task management, and performance evaluation. It should also consider the unique challenges and opportunities associated with virtual work (Hardin, Davison, Schneider, Looney, and Sarker, 2024).
- **Invest in technology and infrastructure:** Provide employees with the necessary tools, software, and equipment to perform their tasks effectively and virtually. This includes ensuring secure and reliable internet connectivity, collaboration platforms, project management tools, and communication channels. Organisations must address technological gaps and provide employees with access to the resources needed to work efficiently in a virtual environment (Hardin et al., 2024)
- **Provide training and support:** Offer training programmes and resources to help employees adapt to virtual work. This can include training on virtual collaboration tools, time management, cybersecurity, and maintaining work-life balance. Additionally, establish channels for ongoing support and assistance for technical or operational issues that may arise. Managers should actively engage with employees to ensure they have the necessary skills and knowledge to thrive in the virtual work environment (Hardin et al., 2024).
- **Foster a virtual team culture:** Promote unity and collaboration among virtual team members. Encourage regular virtual team meetings, virtual social activities, and opportunities for informal interactions. Facilitate virtual team-building activities to strengthen relationships and trust within the team. Managers should foster a positive and inclusive virtual work culture that promotes teamwork and supports employee well-being (Hardin et al., 2024).

- **Set clear expectations and goals:** Communicate performance expectations, deliverables, and goals to virtual employees. Establish regular check-ins and feedback mechanisms to monitor progress, provide guidance, and address any challenges. Focus on outcomes rather than micromanaging the process. Managers should provide clear direction and support to help virtual employees understand their responsibilities and contribute effectively to organisational goals (Hardin et al., 2024).
- **Prioritise communication and collaboration:** Foster effective communication channels and encourage regular and transparent communication among team members. Utilise video conferencing, instant messaging, and project management tools to facilitate collaboration, information sharing, and real-time updates. Encourage open and frequent communication to maintain solid connections and ensure employees feel supported and connected to the organisation (Hardin et al., 2024).
- **Promote work-life balance:** Emphasise the importance of maintaining a healthy work-life balance for virtual employees. Please encourage them to establish boundaries between work and personal life, take regular breaks, and engage in self-care activities. Provide resources for managing stress, promoting well-being, and supporting mental health. Managers should actively support work-life balance initiatives and lead by example, demonstrating the importance of caring for one's well-being while working virtually (Hardin et al., 2024).
- **Continuously assess and adapt:** Regularly evaluate the effectiveness of virtual work arrangements and solicit employee feedback. Use this feedback to identify areas for improvement, make necessary adjustments, and refine virtual work policies and practices. Managers should actively seek employee input and leverage their insights to optimise the virtual work experience and address any challenges (Hardin et al., 2024).

By incorporating these suggestions, organisations can successfully navigate the transition to a virtual workforce. It necessitates a strategic and proactive approach, with managers assuming a pivotal role in supporting and empowering virtual employees to excel in their roles.

1.2.7 The role of technology in virtual work

Prasad et al. (2020) emphasises innovative technologies' transformative power in enabling virtual operations for employees. Organisations must proactively keep up with new technologies to gain a competitive advantage and retain their employees. Gupta, Pandey, Gaur, and Vohra (2019) highlight the dual nature of technology, as it can contribute to an organisation's success or lead to severe repercussions if mismanaged. Therefore, it has become vital for organisations to provide well-equipped management to handle the intricacies of virtual work and ensure that employees have seamless access to all necessary resources. Effective management of digital risks and compliance issues has become crucial for organisations striving to thrive in the virtual realm.

Furthermore, Gallup research reveals that 53% of employees prioritise flexible hours when considering potential employers (Gallup, 2023). These findings are corroborated by the recent Gallup poll, which shows that 44% of American employees currently work from home or in offsite environments (Gallup, 2023). The widespread availability of Internet access has empowered organisations to introduce more flexible working conditions. Studies indicate that first world countries, particularly North America exhibit high Internet access rates with approximately 93% of North Americans connected (Pew Research Center, 2023). Moreover, Global Workplace Analytics (2023) predicts that the trend towards virtual work will continue to grow, with more than half of the global workforce expected to work virtually within the next decade.

1.2.8 Digital Transformation

Organisations must proactively keep up with new technologies to gain competitive advantage and retain their employees. In the post Covid-19 era the accelerated pace of digital transformation has made this imperative even more critical. As Jones (2021) notes, adopting digital innovation has become essential for survival and growth in today's swiftly evolving work environment. It has become vital for organisations to provide well-equipped management to handle the intricacies of virtual work and ensure that employees have seamless access to all necessary resources. Effective management of digital risks and compliance issues has become crucial for organisations striving to thrive in the virtual realm (Prasad et al.2020)

Savić (2020) provides a comprehensive definition of digital transformation involving three key aspects. Firstly, it entails redesigning business models to incorporate technology. This implies that organisations must reevaluate their existing strategies and processes to leverage digital tools and capabilities effectively. Secondly, digital transformation influences organisational change, including its culture, management strategy, technological mix, and operational setup. It is a holistic process that impacts various aspects of the organisation and requires a synchronised effort from all stakeholders. Thirdly, it emphasises the importance of knowledge and understanding in embracing digital transformation. Employees and stakeholders must be actively involved in the transformation procedures and actions.

As highlighted in the Book of Proceedings (2018), the emergence of the Fourth Industrial Revolution necessitates the adoption of digital technologies to achieve optimal results. However, many organisations are accustomed to traditional office-based work environments with limited automation. Therefore, organisations must invest in training programmes to equip virtual employees with the necessary skills and knowledge to thrive in a digital environment. Moreover, employees must be aware of the potential risks associated with digital work and understand how to mitigate them effectively.

To meet the demand of the digital world, the World Economic Forum (2023) predicts that 44% of all employees will require reskilling and upskilling by 2025 to adapt to new technologies. These statistics underscore the significance of upskilling and reskilling initiatives to bridge the digital skills gap and ensure employees can navigate the evolving digital landscape effectively. Organisations must prioritise training programmes focusing on digital literacy, data analytics, cybersecurity, and other relevant digital competences.

By investing in comprehensive training and development initiatives, organisations can prepare their workforce for the digital era, enhance their digital capabilities, and maximise the benefits of virtual work. According to the World Economic Forum (2023), fostering a culture of continuous learning and providing ongoing support to employees as they navigate the digital world is essential, ensuring they have the knowledge and skills required to thrive in a digital work environment. As Smith (2022) emphasises,

organisations that prioritise digital training and development are better positioned to adapt to technological advancements and maintain a competitive edge.

1.2.9 Virtual Employees

Dittes et al. (2019) have highlighted the increasing need for guidance and support for employees working virtually, given the flexible nature of work today and the importance of maintaining a balance between work and personal life. While managers are encouraged to trust their employees, it is essential to recognise that even in leadership roles, there is still a requirement for performance management, monitoring, and evaluation. Therefore, managers must ensure virtual employees have the necessary tools and support to adapt to their new work environment.

Additionally, virtual employees often face unique challenges related to isolation and self-discipline. Without the physical presence of colleagues or a traditional office environment, virtual workers may experience feelings of loneliness and disconnection (Dittes et al. (2019)). They may struggle to establish clear boundaries between work and personal life, leading to potential work-life imbalance. To address these challenges, organisations should consider implementing strategies to foster a sense of community and connection among virtual employees (Rysavy & Michalak 2020).

In addition to the challenges of collaborating with virtual workers, managers must focus on improving communication strategies to enhance team cohesion and productivity (Inavero, 2018). Regular virtual team meetings can provide a platform for discussing goals, addressing challenges, and fostering a sense of unity among virtual team members. Virtual social events, such as virtual coffee breaks or team-building activities, can help create a more relaxed and friendly atmosphere, promoting camaraderie and strengthening relationships within the team.

Creating opportunities for virtual collaboration and communication is essential for facilitating efficient teamwork. This can be achieved using collaborative tools and platforms that allow virtual employees to collaborate on projects, share ideas, and provide real-time feedback. Managers should encourage using such tools and deliver training and support to ensure virtual employees are comfortable and proficient. Collaborating with virtual workers can be challenging, as noted by (Rysavy & Michalak,

2020). Managers should provide resources and training on time management and self-discipline to support virtual employees in managing their workload and maintaining a healthy work-life integration.

This may involve advising on how to set priorities, create a clear distinction between work and personal life and engage in self-care practises. Providing flexible work options and fostering a culture that prioritise work-life balance can also enhance the well-being and satisfaction of virtual employees (Savic,2020). Managers can create a supportive and inclusive atmosphere for virtual employees by addressing these additional aspects of the virtual work environment. According to Prasad et al, (2020). effective communication, collaboration, and resources for managing workload and work-life integration will enhance the well-being and productivity of virtual employees and contribute to the overall success of the virtual workforce.

1.2.9.1 Problems and solutions in the virtual work environment

The shift to virtual work has diminished the traditional authority that management and organisations once held over employees, highlighting the increased importance of employee self-management. Malakyan, Nordbäck and Espinosa (2019) support this notion, emphasising the growing trend of shared leadership. However, managers may encounter difficulties evaluating, assessing, and monitoring employees granted such autonomy without clear guiding policies. Implementing an effective reporting policy is essential to ensure that the managerial position is not undermined in the process. Managers must develop and execute innovative strategies to align the virtual workforce effectively with the organisation's objectives and goals (Fayzullaevna, 2021).

This critical step, as underscored by Gómez, Madero, Mendoza, Ramírez, and Olivas-Luján (2020), fortifies the organisation's competitive advantage and fosters an environment conducive to enhancing employee well-being. Prioritising the digitalisation of work processes and providing comprehensive support to employees are vital steps in enabling their success in the virtual work environment.

Table 1.1 outlines common challenges encountered in managing virtual workforce along with practical solutions to address these issues effectively.

Table 1.1 Virtual workforce problems and solutions

PROBLEMS	SOLUTIONS
Lack of effective communication and collaboration.	Implement regular virtual team meetings, use communication tools like video conferencing, and establish clear channels for communication. Encourage virtual collaboration through shared platforms and project management tools.
Difficulty in managing work-life balance.	Provide resources and training on time management, self-discipline, and setting boundaries. Encourage employees to establish routines, take breaks, and prioritise self-care. Set expectations for working hours and encourage downtime to promote healthy work-life integration.
Feelings of isolation and disconnection.	Foster a sense of community and belonging through virtual social events, team-building activities, and informal chats. Encourage regular check-ins and create opportunities for virtual interaction and collaboration. Establish virtual mentorship programmes to facilitate connections among team members.
Maintaining productivity and accountability.	Set clear goals and expectations and establish metrics to measure progress. Encourage regular updates and check-ins to monitor progress and address any challenges. Provide the necessary resources and support for employees to perform their tasks effectively. Implement performance management

	systems to track and evaluate performance in a virtual setting.
Cybersecurity risks and data protection.	Educate employees on best practices for cybersecurity, including strong passwords, secure internet connections, and safe handling of sensitive information. Implement robust cybersecurity measures like firewalls, encryption, and secure virtual access protocols. Regularly update and patch software and systems to address vulnerabilities.
Lack of clarity and guidance in decision-making.	Establish clear communication channels for decision-making and ensure employees have access to necessary information and resources. Provide guidelines and frameworks for decision-making in a virtual context. Encourage open dialogue and collaboration to foster a shared understanding of goals and objectives.
Managing performance and providing feedback.	Implement performance management systems that are tailored to the virtual work environment. Set measurable goals, provide regular feedback, and conduct performance reviews. Use technology tools to track and evaluate performance and deliver professional development and growth opportunities.

Addressing the above-mentioned problems and implementing suitable solutions requires a proactive and adaptive approach. Regularly assess the virtual work

environment, gather employee feedback, and adjust as needed to ensure a productive and successful virtual work experience.

The importance of managers and employees understanding and embracing the advantages of virtual work is essential for its success implementation within the organisation. In South Africa and many other countries, virtual work has become primary mode of operation, largely due to the global pandemic's influence (World Economic Forum, 2021). Organisations must identify key factors that support a productive virtual workforce and customize strategies to fit their unique organisational dynamics (Deloitte, 2020). This tailored approach enables organisations to effectively capitalise on the benefits of virtual work, adapting to meet their specific needs and challenges (Gartner, 2022).

In summary, the rise of the virtual workforce is global phenomenon organisations are starting to recognise. Organisations must embrace the various factors that facilitate transitioning to a virtual workforce to stay competitive. Numerous studies have highlighted the advantages of virtual work (Prasad et al., 2020; Molino et al., 2020; Raišienė et al., 2020), while others have shed light on its disadvantages (Charalampous, Grant, Tramontano & Michailidis, 2019; Molino et al., 2020).

1.3 RESEARCH PROBLEM

The rapid workplace changes driven by global pressures and technological advancements have created a growing demand for virtual workforce solutions. Organisations have been forced to navigate uncharted territories and adapt to these changes quickly (Contreras, Baykal and Abid, 2020; Kramer & Kramer, 2020). However, some organisations and managers mistakenly assume that managing the traditional and virtual workforce can be approached similarly, disregarding the significant differences between the two (Flood, 2019). Vogel and Yeo (2021) support this perspective, stating that no universal approach can effectively accommodate all organisations in the realm of virtual work. As a result, the emergence of a virtual work environment has necessitated incorporating management strategies, rules, and procedures to address challenges like the COVID-19 pandemic.

Each organisation has its unique preferences for managing a virtual workforce. There is a growing recognition that executive powers have been somewhat relinquished. The employees are now expected to take greater responsibility for their work (Malakyan 2019). However, businesses often face various challenges relating to virtual work, such as technology limitations. Or lack of privacy in employees homes (Benton et al., 2021). These challenges can hinder employees ability to carry out their task effectively. Employees who now require guidance and leadership from their managers must develop new skills in problem-solving, project management and virtual collaboration with their peers (Hickman & Pendall, 2018).

Secondly, SACAA has implemented advanced automated systems that enable employees to carry out their work online. However, the transition towards automation has been relatively slow, and unfortunately, the COVID-19 pandemic has accelerated the need for it (SACAA Stakeholder Management Strategy, 2020/21-2024/25). SACAA controls, promotes, regulates, supports, develops, enforces, and continuously improves safety and security standards in the civil aviation industry. To fulfil this mandate, SACAA adheres to the Standards and Recommended Practices (SARPs) set by the International Civil Aviation Organisation (ICAO) while considering the local context. As a Department of Transport (DoT) entity, SACAA oversees the regulation of individuals and organisations involved in civil aviation and conducts safety and security oversight activities that require physical engagement with stakeholders. This includes aircraft operators, airlines, airports, Traffic Services Units, Aircraft Maintenance Organisations, Aircraft Owners, Aircraft Designers and Manufacturers, Licensed Aviation Personnel, and Aviation Training Organisations.

The disruptions caused by the COVID-19 pandemic and the necessary changes to comply with COVID-19 regulations have compelled organisations to respond with agility. Failing to transition from a traditional workforce to a virtual workforce could hinder an organisation's ability to carry out operations successfully. Therefore, this study explores how this transition has impacted the civil aviation sector's operations.

Thirdly, Altman (2020) proposed five strategies to assist managers in effectively managing virtual employees. These strategies include setting clear expectations from the beginning, scheduling regular one-on-one meetings, providing continuous

feedback, requesting regular updates, and fostering employee trust. Implementing these strategies can significantly contribute to the success of managing virtual teams.

The COVID-19 crisis has prompted numerous policy changes in response to its challenges. While many individuals embraced the shifts in the labour market, some view them as temporary measures that should be avoided in the long run (de Lucas Ancillo et al., 2020; Kniffin, Narayanan, Anseel, Antonakis, Ashford, Bakker, Bamberger, Bapuji, Bhave, Choi, and Creary, 2021; Ratten, 2020; Savić, 2020). Before the pandemic, working in a designated physical workspace was the norm in many countries, with working from home (WFH) considered a privilege reserved for certain employees. However, the ongoing pandemic has acted as an unforeseen catalyst for the widespread adoption of virtual work, leading to a global re-evaluation of workplace location and practices on an unprecedented scale (de Lucas Ancillo et al., 2020; Kniffin et al., 2021; Ratten, 2020; Savić, 2020).

1.4 RESEARCH OBJECTIVES

This section outlines the research objectives of the study.

1.4.1 Main Research Objectives – Literature Study

- To conceptualise traditional office work.
- To conceptualise virtual work.
- To determine the demands and requirements the aviation industry poses on virtual work practices within organisational settings.
- To formulate theoretical recommendations for SACAA to effectively integrate and optimise virtual work practices, considering the organisation's specific operational needs and the regulatory environment within the aviation industry.

By achieving these objectives, the study aims to provide valuable insights and guidance for organisations seeking to embark on or optimise their transition to virtual work. The recommendations derived from the study's findings will serve as a valuable resource for organisations in navigating the complexities of virtual work and ensuring a smooth and successful transition process.

1.4.2 Sub Research Objectives – Empirical Study

- To investigate the factors influencing the transition from traditional office setups to virtual work environments within SACAA.
- To determine how employees perceive and adapt to the shift from traditional office work to virtual work arrangements at SACAA.
- To determine the organisational challenges encountered during the transition process from traditional to virtual office settings within SACAA.
- To recommend evidence-based strategies and best practices for SACAA to facilitate a smooth and effective transition from traditional to virtual office environments.
- To provide guidelines on how SACAA can ensure the successful implementation and long-term sustainability of virtual work practices post-transition.

1.5 RESEARCH QUESTIONS

In the following section, the research questions that guide this study are meticulously outlined, providing a clear framework for exploring the experiences and challenges faced by SACAA employees during their transition to virtual work.

1.5.1 The Main Research Question

How has the organisation transitioned from traditional office work to virtual work, and what have been the experiences, challenges, and risks involved? The specific research questions for this study are formulated as follows:

1.5.2 Sub Research Questions – Literature Study

In terms of the literature study, the following specific research questions will be addressed in this study:

- How is traditional office work conceptualised?
- How is virtual work conceptualised and delineated within scholarly discourse?
- What specific demands and requirements does the aviation industry pose on virtual work practices within organisational settings?

- How can the insights gained from the literature study be utilised to formulate theoretical recommendations for SACAA to effectively integrate and optimise virtual work practices, considering the organisation's specific operational needs and the regulatory environment within the aviation industry?

1.5.3 Sub Research Questions – Empirical Study

In terms of the empirical study, the following specific research questions will be addressed in this study:

- What factors influence the transition from traditional office setups to virtual work environments within the SACAA?
- How do employees perceive and adapt to the shift from traditional office work to virtual work arrangements at SACAA?
- What are the organisational challenges encountered during the transition process from traditional to virtual office settings within SACAA?
- What strategies and best practices can SACAA implement to facilitate a smooth and effective transition from traditional to virtual office environments?
- How can SACAA ensure the successful implementation and sustainability of virtual work practices post-transition?

1.6 SIGNIFICANCE OF THE STUDY

This study holds significant value and implications for various stakeholders involved. The significance of the study is as follows.

Understanding employee virtual experiences: The research aims to comprehensively understand employee experiences and their adaptation to virtual work. By examining the evolving workplace dynamics influenced by globalisation, technological advancements, and the COVID-19 pandemic, this study offers valuable theoretical insights into challenges and opportunities employees face in transitioning to virtual work environment (Bailey & Kurland, 2021). Theoretical frameworks such as Technology Acceptance model (TAM) and Work Life Balance theories can help contextualise these findings (Davis, 1989; Greenhaus & Beutell, 1985).

Addressing challenges in the virtual workplace: The study sheds light on the challenges employees encounter in virtual work settings. By identifying and analysing these challenges, the research contributes to deeper understanding of employees' barriers and limitations in effectively carrying out their responsibilities. This understanding can aid in developing strategies and interventions to overcome these challenges and improve the virtual work experience for employees (Wang, et al., 2021).

Enhancing organisational processes: The findings of this study may provide valuable feedback for SACAA to optimise its organisational processes and practices in the context of virtual work. By gaining insights into the needs and concerns of their virtual workforce, SACAA management can make informed decisions and implement changes to manage the virtual workforce effectively. This can improve employee satisfaction, productivity, and overall organisational performance (Hodder, 2020).

Informing decision makers and policymakers: This study may contribute to the knowledge base of decision maker and policy makers regarding the unique issues faced by virtual workforce. The findings can inform the development of new policies, procedures and guidelines that address employees' needs in virtual work settings. This can create a supportive and conducive environment for virtual work and enable organisations to adapt and thrive in changing work landscapes (Eurofound, 2020).

The study's beneficiaries include SACAA employees and stakeholders who may gain insights in virtual employment and have their concerns addressed. SACAA management may benefit by understanding the needs of their virtual workforce and making necessary adjustments to manage them effectively. Decisionmakers and policymakers may better comprehend the virtual workforce's challenges, allowing them to formulate relevant policies and procedures that support virtual workplaces practices. Ultimately, this study contributes to the knowledge of virtual work and its Implications for the aviation industry, providing a basis for further research and exploration.

1.7 THE RESEARCH DESIGN

This section discusses various aspects related to the empirical conduct of the study such as the research methodology, design, approach, sampling and the reliability and validity of the study.

1.7.1 Methodology

Research methodology is the systematic process employed to conduct a study and guides researchers in addressing the research questions (Bryman, 2016). It involves making informed choices about the methods utilised and justifying why specific approaches were selected while others were not (Lune & Berg, 2016). This section outlines and explains this study's research design and methodology.

1.7.2 Research Design

A research design encompasses a comprehensive plan that guides the entire research process, starting from the initial research question to sampling strategies, data analysis, interpretation of results, and the final report or policy recommendations (Vogt, Gardener & Haeffele, 2012; Nardi, 2014 & Thomas, 2009). Alias, Zawawi, Yusof, and Aris (2014) also emphasise that research design encompasses the plans and structures employed in a study to collect, analyse, and interpret data.

According to Alase (2017), qualitative research methodology offers various data analytical approaches that researchers can employ in their analysis. Some of these approaches include the narrative approach, grounded theory approach, ethnographic approach, case study approach, and interpretative phenomenological analysis (IPA) approach, among others. In this study, a qualitative, exploratory and phenomenological approach was adopted. This approach enabled the study to gather extensive evidence about the subject matter by examining the experiences and perspectives of selected participants within SACAA. The case study method also facilitated a deeper understanding of the challenges of implementing virtual work within SACAA. The case study data analysis approach was also found to be suitable for this research as it was aligned with the investigated phenomenon (Alase, 2017). The researcher thoroughly reviewed all the data, derived meaning from it, and categorised it into different sources.

1.7.3 Research Approach

The research approach can be categorised into either quantitative or qualitative methods. According to Goertz and Mahoney (2012), the choice between these two approaches is not solely based on the availability of information. Still, it provides an opportunity to select the most suitable method that aligns with the goals of the investigation. Brynard, Hanekom, and Brynard (2014) further emphasise that when collecting data, it is crucial to consider the entire research process to ensure accuracy, neutrality, and legitimacy. In this study, a qualitative approach was employed.

1.7.4 Qualitative Approach

Qualitative research is described by Creswell (2007) as the investigation and comprehension of the meanings that individuals or groups ascribe to social or human situations. On the one hand, investigating complicated situations requiring in-depth investigation and developing hypotheses using qualitative techniques is a particular application of qualitative research (Nicolas, 2011). It often requires additional reflection and explanation of the data analysis process (Hofstee, 2013). On the other hand, Brynard Hanekom and Brynard (2014) assert that qualitative methodology involves research that yields expressive information or focuses on the participants' written or verbal accounts of their experiences or insights. Kumar (2014) argues that researcher bias is a challenge in qualitative studies due to the flexibility and lack of control inherent in the approach, allowing creativity in addressing research questions. Bryman (2012) explains that qualitative research typically uses words rather than quantification when collecting data, permitting researchers to explore and examine their research subject in-depth. The qualitative approach also enables researchers to develop and express their relational and subjective skills throughout the investigative process (Alase, 2017).

The qualitative research methodology was utilised for this study due to its descriptive, explanatory, and exploratory nature. This approach allowed the study to gain an in-depth understanding of the topic under investigation, mainly through exploring the experiences of SACAA employees who work in a virtual environment. Qualitative research is warranted since the study aimed to investigate perceptions of the traditional versus virtual work environment and delve into human experiences. Additionally, the study examined the organisational structure of SACAA, its objectives, and how the virtual workforce was managed.

1.7.5 Research Variables

The context of this study focused on comparing traditional office work with virtual work and its impact on the work experiences of employees and management. The study aimed to determine how the transition to a virtual work environment affected the perceptions about performance and operations at SACCA

1.7.6 Type Of Research

An exploratory case study design allows for exploring multiple perspectives through systematic data collection, even with fewer participants (Creswell, 2016). The study was aimed at exploring, describing, and understanding employees' experiences in the virtual work environment and identify common elements within those experiences. A qualitative exploratory research method was employed to conduct this study. Qualitative research is an approach that seeks to gain knowledge and understand the significance individuals or groups attribute to a particular phenomenon of interest (Creswell, 2016).

This study adopted a qualitative research approach, offering additional benefits regarding the exploratory capacity researchers require to examine and test their research variables. This participant-oriented approach focuses on interpretative analysis, allowing research participants to express themselves and share their lived experiences from their perspectives (Alase, 2017).

Appropriate measures will be implemented to ensure the credibility and authenticity of the research process. One of these measures is conducting a pilot study. The pilot study will help refine the research methodology, including developing an interview guide. By conducting a pilot study, the study can assess the trustworthiness of the interview questions and make any necessary adjustments before the actual data collection phase.

1.7.7 Pilot Study

A pilot study in qualitative research ensures that the data obtained is appropriate for the study's investigation. It allows the study to test and refine its research question, determine the most suitable approaches, and assess the time and resources required to complete the larger study version (Ismail et al., 2018). Conducting a pilot study for

interviews is particularly important for inexperienced researchers as it helps them gain the necessary experience and skills to conduct effective and meaningful interviews (Majid, Othman, Mohamad, Lim, & Yusof, 2018).

The pilot study will involve selecting a small group of participants representative of the target population. Interviews will be conducted with these participants using the draft interview guide. The study will carefully observe the participants' responses and gather feedback on the clarity and relevance of the questions. This feedback may refine the interview guide, ensuring it elicits the desired information and accurately captures the participants' experiences. A pilot study can enhance the quality and effectiveness of the interviews, leading to more valid and reliable data collection (Ismail, Kinchin & Edwards, 2018). It allows for any potential issues or challenges to be identified and addressed beforehand, ultimately improving the overall research process and the credibility of the findings.

The pilot study enables researchers to test the relevance and clarity of the interview questions and to gather insights into conducting in-depth and face-to-face semi-structured interviews (Ismail et al., 2018) It also provides an opportunity to connect with the participants, fostering a conducive environment for open and candid responses. By conducting a pilot study, researchers can identify any potential issues or challenges that may arise during the interview process and make appropriate adjustments before embarking on the main study. According to Ismail et al (2018) this ensures that the data collected is of high quality and aligns with the research objectives, ultimately enhancing the validity and reliability of the findings.

To ensure the trustworthiness of the interview process, a pilot study was conducted before the main study. The pilot study involved six participants who met the selection criteria determined by the relevant instruments. The participants were selected from different roles within SACAA, including one technical manager, quality specialist, inspectors, and support department members. The pilot interviews were conducted at SACAA offices in Midrand. Before the interviews, the researcher discussed and agreed on the interview schedule with the participants, and a confirmation email was sent to all participants to ensure mutual understanding and coordination (Alase, 2017). During

the pilot interviews, each participant received a letter of informed consent to read and sign, indicating their voluntary participation in the study.

The researcher obtained approval from all participants before proceeding with the interviews (Alase, 2017). The interviews were conducted in English and expected to last 25 to 35 minutes for each participant. Participants were encouraged to provide feedback on the interview questions, including whether any questions were deemed inappropriate, suggestions on what should be omitted, and any additional insights that could enhance the exercise. The pilot study served as an opportunity to make necessary adjustments to the interview questions and guide based on participant feedback (Majid et al., 2018). This process ensured that the information obtained through the interviews in the main study would be trustworthy, enhancing the overall quality of the research findings.

1.7.8 Trustworthiness

To ensure the credibility and robustness of the qualitative study, adherence to established methodological strategies recommended by Lincoln and Guba (1985) and Shenton (2004) is imperative. Trustworthiness, as underscored by these scholars, holds significant importance in qualitative research, serving to uphold rigor while maintaining relevance. In qualitative research, trustworthiness denotes the extent to which the findings accurately portray the phenomenon under investigation and are deemed credible by stakeholders. This encompasses several fundamental principles:

Credibility: Credibility pertains to the believability of the research findings and is established through methodologies such as prolonged engagement, member checking, and triangulation (Lincoln & Guba, 1985). To ensure credibility, the researcher will spend significant time interacting with participants in various virtual settings to gain a deeper understanding of their experience and challenges during the transition.

Dependability: Dependability refers to the stability and consistency of the research findings over varying temporal and contextual conditions. It is fostered through the implementation of practices such as audit trails, peer debriefing, and reflexivity (Lincoln & Guba, 1985). To ensure dependability, the researcher will reflect on their own role and biases

and assumptions through the research process as an employee of SACAA and address those biases transparently and accordingly.

Transferability: Transferability concerns the extent to which the findings can be applied or generalised to different settings or populations. This aspect is enriched through the provision of detailed, comprehensive descriptions of the research context and participants (Lincoln & Guba, 1985). To ensure transferability the researcher will provide a rich detailed description of the research context, participants and the specific conditions under which the transition from traditional to virtual work takes place. This will allow others to understand the content context. and determine if the findings are applicable in their own settings. The researcher also included a diverse group of participants, this will also ensure that their findings are not limited to a specific subgroup. This enhances the likelihood that the findings can be generalise to a broader population.

By employing these principles of trustworthiness, the aim was to uphold the rigor and validity of the qualitative study examining the transition effect from traditional to virtual office environments within the SACAA. This research delineated the investigative approach towards understanding the transition from traditional to virtual office environments within the SACAA. Through adherence to established methodological strategies and principles of trustworthiness, the study endeavoured to offer valuable insights into the challenges and opportunities associated with this organisational transformation.

1.7.9 Unit of Analysis

The unit of analysis typically refers to the specific members or elements of a population that share a similar or comparable meaning, such as individuals, groups, organisations, institutions, human products or outputs, and events (Cohen et al., 2009 & Nardi, 2014). In terms of individual measurement, the unit of analysis for this study was the individual employee members of SACAA in the Gauteng province.

The study investigated the transition effect from traditional to virtual office work within the SACAA context and examined the associated risks of implementing virtual work. The purposive sampling technique was employed to select participants for the interview process. These participants will fall into the same category and contribute valuable insights to the research interviews (Cohen et al., 2009).

1.7.10 Population

According to Cohen et al. (2009), a population refers to the study object. It comprises individual people, groups, organisations, human products, events, or the conditions they are exposed to from which a sample is drawn. It is crucial to define the target population accurately to ensure that the correct research question is addressed, and satisfactory results are obtained (Aaker, Kumar & George, 2011).

In this comprehensive empirical study, our focus was on a specific and crucial demographic: employees of SACAA who were engaged in virtual work arrangements. This carefully chosen population was estimated to encompass around 519 dedicated members stationed across two vital geographic areas—Midrand in the vibrant Gauteng Province and the picturesque Cape Town in the Western Cape province.

These individuals, comprising the vital constituents of this study, were poised to offer invaluable insights into the dynamic shift underway within SACAA as it navigates the transformative journey from traditional office setups to the realm of virtual workspaces. The aim was to comprehensively understand this transition's multifaceted dimensions through meticulous analysis and exploration of their experiences, attitudes, and challenges.

1.7.11 Sampling

Sampling is selecting a subset of individuals or items from a larger population for research purposes (Creswell, Ebersöhn, Eloff, Ferreira, Ivankova, Jansen, Nieuwenhuis, Pietersen, Plano Clark & van der Westhuizen, 2010; Cohen et al., 2009). It is a practical approach that helps to make research more manageable and relevant, considering factors such as time, resources, finances, and accessibility (Creswell et al., 2010 & Cohen et al., 2009). Conducting a study with the entire population is often unrealistic and impractical due to time, cost, and availability limitations. Therefore, researchers use sampling techniques to select a representative sample, a smaller subgroup or subset of the total population (Cohen et al., 2009).

In this study, a purposive sampling strategy was employed. Purposive sampling involves intentionally selecting individuals who possess specific characteristics or meet

certain criteria that align with the research objectives (Creswell et al., 2010). The sample consisted of SACAA employees working in a virtual capacity. The selection of participants was based on their relevance to the research topic and their experiences transitioning from traditional to virtual office work. By targeting individuals who could provide valuable insights, the sample would effectively represent the population of interest and contribute to a comprehensive understanding of the research phenomenon.

1.7.12 Probability and Non-Probability Sampling

Sampling techniques can be broadly categorised into two main types: probability sampling and non-probability sampling (Creswell et al., 2010; Cohen et al., 2009; Maree, 2010). Probability sampling ensures that each element in the target population has a known and equal chance of being selected for the sample. This allows for generalisation of the findings to the larger population. Expected probability sampling methods include simple random, stratified, and cluster sampling (Nardi, 2014; Creswell et al., 2010; Cohen et al., 2009).

Non-probability sampling does not provide every element in the population an equal chance of being selected for the study. Instead, participants are selected based on the study's judgement, convenience, or specific criteria. Non-probability sampling methods include purposive sampling, snowballing, and convenience sampling (Nardi, 2014; Creswell et al., 2010; Cohen et al., 2009).

While non-probability sampling may be necessary or practical in specific research contexts, it is essential to acknowledge its limitations. Findings from a non-probability sample may lack generalisability to the entire population, as the selection of participants is contingent upon specific criteria or the discretion of the study. Therefore, caution should be exercised when drawing conclusions based solely on a non-probability sample (Vogt, Gardener & Haeffele, 2012; Nardi, 2014). The dependence on the study's judgement in non-probability sampling can introduce potential biases and restrict the findings' external validity (Vogt et al., 2012).

1.7.13 Purposive Sampling Technique

Purposive sampling, also known as judgement sampling, involves the deliberate selection of participants based on specific criteria or qualities that align with the research

objectives (Etikan, Musa & Alkassim, 2016). Unlike random sampling, it does not rely on probability or the need for a specific number of participants. Instead, the study consciously chooses individuals who can provide the desired information or represent a particular perspective.

In this study, purposive sampling was employed to ensure that participants possessed the relevant knowledge and experiences related to the research topic. By establishing specific criteria and requirements for participant selection, the researcher could target individuals who were best suited to contribute to the study's objectives.

Additionally, the maximum variation sampling method was utilised in this study. This approach aimed at capturing various perspectives and experiences by deliberately selecting participants who differed in multiple aspects relevant to the research topic. By including participants with diverse backgrounds, roles, and experiences within the virtual work environment of SACAA, the study could gather rich and varied data that provided a comprehensive understanding of the phenomenon under investigation.

1.7.14 Maximum Variation Sampling

Maximum variation sampling, also referred to as heterogeneity sampling, is a sampling technique that aims to capture a diverse range of perspectives on investigation (Thomas, 2022). The goal is to include a variety of viewpoints and opinions that represent the broader population or sample. Maximum variation sampling focuses on the ideas and perspectives rather than solely on the individuals.

This study employed a non-probability sampling approach, explicitly utilising a maximum variation purposive sampling technique at SACAA. This sampling technique was well-suited for the research objectives, as it allowed for the selection of participants who could provide valuable insights into the experiences of SACAA employees working in a virtual environment. A total of 25 participants were selected for the study, comprising various critical roles within SACAA. The primary participant included two Executive Managers, three Senior Managers, four Operational Management Employees, one Quality Specialist, one Project Specialist, one ICAO Specialist, one IT Specialist, two Administrators and seven Inspectors. Additionally, three employee members who provided support were interviewed. This diverse set of participants will

provide a comprehensive range of comprehensive perspectives and experiences related to virtual work within SACAA.

The semi-structured interview format was used to gather in-depth information from the participants. This approach allowed for flexibility while ensuring that relevant topics and themes were explored. Through these interviews, the researcher aimed to comprehensively understand the challenges, benefits, and overall experiences of employees engaged in virtual work within SACAA.

1.7.15 Adherence to Ethical Research

Performing research necessitates meticulousness, sincerity, and truthfulness. Henn, Weinstein, and Foard (2009) classify five ethical interests when conducting research. These principles include consent, privacy, consequentiality, harm, confidentiality, and anonymity. The respondent's right to confidentiality will be respected, and any legal requirements on data protection will be adhered to. The participants will be notified about the survey's aims, and their consent to participate in the survey will be obtained. The following with regards to consent must be considered:(1) The person giving the consent should be adequately informed (2) Consent should be provided by a person competent to do so (3) The consent should be voluntary (Flick, 2009). The researcher obtained informed and voluntary written consent from all relevant participants. Ethics involves practising ethical conduct through viewpoints, attitudes, principles, standards, laws or behaviour in a specific country's workplace, businesses, and administrative institutions (Uys 2012:3).

The researcher also confirmed that all information and data collected from or about the research participants and findings would be handled with confidentiality, and participants' privacy respected and protected. Furthermore, an essential ethical research aspect was the issue of the confidentiality of the results, findings, and the protection of the participants' identities (Creswell et al., 2010). This included obtaining informed and voluntary consent letters, permission to interview, undertaking to destroy audiotapes after one year (Creswell et al., 2010). This research was conducted within the ethical guidelines, ethically responsible research practice, requirements, and Unisa procedures. This included the principles of ethics in research, as indicated in the Institutional Research Ethics Policy (Unisa, 2012).

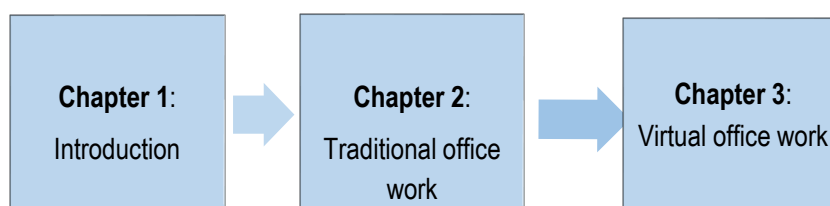
1.8 THE RESEARCH PROCESS

The research process for this study will encompass two main phases: a comprehensive literature review and an empirical study. The first phase, the literature review involved a systematic examination and analysis of existing scholarly works, research articles, books, and other relevant sources related to traditional office work versus virtual work. It included the impact on the work experiences of employees and management. This phase aimed to thoroughly understand the current state of knowledge, identify any research gaps, and establish a theoretical framework for the study. The literature review provided a foundation for the subsequent empirical study.

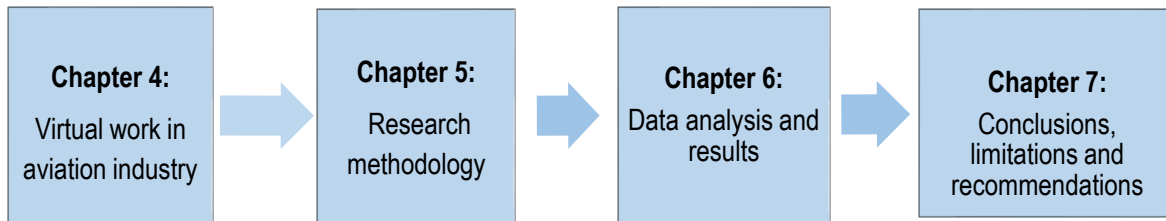
The second phase, the empirical study involved collecting primary data through interviews, surveys, or other appropriate research methods. In this phase, direct engagement with SACAA employees working virtually was undertaken to investigate their experiences, perceptions, and challenges associated with transitioning from traditional office work to a virtual work environment. The empirical study focused on gathering real-world insights and firsthand accounts from the participants to supplement and validate the findings from the literature review.

Both phases of the research process were essential for achieving the research objectives and addressing the research questions. The literature review provided a comprehensive understanding of the existing knowledge and theories, while the empirical study provided valuable empirical evidence and insights specific to the context of SACAA and its employees. Combining these two phases contributed to a more robust and comprehensive analysis of the topic under investigation.

PHASE ONE



PHASE TWO



1.8.1 Data Collection

Data collection is a crucial step in the research process as it involves gathering relevant information to address the research questions and achieve the study's objectives (Brynard & Hanekom, 2011). However, it is important to note that collecting all available data is often impractical due to constraints such as time, cost, and feasibility (Saunders, Lewis, and Thornhill, 2009). (ibid)

To overcome these limitations, researchers must carefully plan and select appropriate data collection methods that align with the research design, objectives, and the nature of the data required (Brynard & Hanekom, 2011). Various methods can be employed, including surveys, interviews, observations, document analysis, or a combination of these approaches.

By strategically selecting a representative sample or specific participants, researchers can gather data that provides meaningful insights while managing the practical constraints associated with comprehensive data collection (Hunziker & Blankenagel, 2024) This approach ensures that the collected data are relevant, reliable, and sufficient to address the research questions and achieve the study's objectives (Brynard & Hanekom, 2011).

Researchers must establish clear protocols, maintain ethical considerations, and ensure data quality during data collection. This includes obtaining informed consent from participants, ensuring confidentiality, and adhering to relevant ethical guidelines. According to Hunziker and Blankenagel (2024) by adopting appropriate data collection techniques and adhering to rigorous standards, researchers can obtain valuable information to support their research findings and contribute to the overall knowledge in their field.

1.8.2 Primary Data

Primary data, which is collected directly for a specific research purpose and has not been published before, is highly valued for its reliability, authenticity, and objectivity (Brynard & Hanekom, 2011). In line with the objectives of this study, primary data collection methods will be employed to ensure the accuracy and relevance of the findings.

In-depth interviews were conducted to gather the necessary data for this study. Interviews offer a powerful means of obtaining qualitative information, allowing for a comprehensive exploration, and understanding of participants' experiences, perspectives, and insights. Through direct engagement with the participants, the study can elicit detailed responses that provide valuable insights into the topic of interest.

The interview process involved carefully crafting questions that were tailored to the research objectives. These questions prompt participants to reflect on their experiences and provide meaningful and detailed responses. The interviews were structured or semi-structured, ensuring data collection consistency while allowing for flexibility to explore emerging themes and follow up on participants' responses.

This study aimed to capture the firsthand accounts of SACAA employees and gain a deep understanding of their experiences transitioning from traditional to virtual work by collecting primary data through interviews. The use of primary data collection methods, such as interviews, enhanced the authenticity and richness of the data, enabling the study to uncover valuable insights that would contribute to the overall quality of the research findings.

1.8.3 Secondary Data

Secondary data refers to information that have been previously collected and analysed for a different purpose but can be utilised for additional research (Brynard & Hanekom, 2011). This study gathered secondary data from diverse sources, such as census reports and research papers, to complement the primary data collected through interviews.

Secondary data offers several advantages, including cost-effectiveness and time efficiency, as the data already exists and does not require the study to go through the primary data collection process. Additionally, secondary data can provide a broader context, historical background, or statistical information that can enrich the understanding of the research topic.

For this study, census reports served as a valuable source of demographic and organisational data related to SACAA and its employees. These reports could provide insights into the composition of the workforce, workforce trends, and relevant statistical information. Research papers, on the other hand, offered existing insights, theories, and findings related to virtual work, organisational transitions, and employee experiences. By reviewing and analysing these papers, the study could build upon existing knowledge and identify potential gaps or areas for further exploration.

It was essential to ensure the trustworthiness of secondary data sources selected. Careful consideration was given to the sources' quality, including the authors' reputation, the research methodology's rigour, and the relevance of the findings to the current study. Proper citation and referencing of the secondary data sources were maintained to acknowledge their contributions to the research.

This study aimed to provide a comprehensive and well-rounded analysis of the research topic by integrating secondary data with the primary data collected through interviews. The combination of primary and secondary data enhanced the credibility and depth of the findings, allowing for a more robust understanding of the impact of the transition from traditional to virtual work within the SACAA context.

1.8.4 Data Collection Instrument

Face-to-face semi-structured interviews were conducted as this study's primary data collection method. In line with the policies, measures, and regulations of SACAA, including the COVID-19 guidelines, strict adherence to safety protocols was ensured to prioritise the well-being of all participants involved. Precautionary measures such as social distancing, wearing of masks, and sanitisation were followed to mitigate any risks associated with the pandemic.

The researcher developed the interview guides, considering the guidelines established by Creswell (2013) and informed by the literature review findings. The face-to-face semi-structured interviews provided a flexible yet guided framework, allowing participants to express their experiences, perceptions, and insights in depth. This approach encouraged rich and detailed responses, enabling a comprehensive understanding of the transition to virtual work within the SACAA context.

Content analysis was employed to analyse the data gathered from the interviews. This method systematically examines the interview transcripts and identifies recurring themes and patterns. By organising the data into meaningful themes, the researcher could gain valuable insights and interpretations regarding the experiences and perspectives of the participants. The content analysis would provide a structured approach to analyse and interpret the qualitative data collected.

The study's findings were presented clearly and concisely, utilising appropriate data presentation techniques such as tables, graphs, or narratives. Based on the results, recommendations were formulated to assist SACAA in effectively managing a virtual workforce. These recommendations provided valuable insights and practical strategies to enhance the organisation's operations, support employee well-being, and optimise performance in the virtual work environment.

By employing face-to-face semi-structured interviews and employing rigorous analysis techniques, this study aimed to make significant contributions to comprehending the dynamics of virtual work within the SACAA. The objective is to enable evidence-based decision-making for effective management of the virtual workforce, thereby enhancing operational efficiency and organisational effectiveness within SACAA.

1.8.5 The Rationale for Using Interviews

Using interviews as a data collection instrument is motivated by the unique advantage it offers in terms of direct engagement with the participants. Engaging in interviews allows for an interactive and dynamic exchange of information, enabling researchers to delve deeper into the participants' views, perspectives, and practices.

According to Saunders, Lewis, and Thornhill (2019), interviews provide an opportunity to study individuals' experiences and insights through open conversations. By engaging in dialogue, researchers can explore diverse aspects of the research topic and uncover valuable nuances that may not be captured through other data collection methods (Ates, & Aktamis, 2024). The interactive nature of interviews enables the emergence of new probing questions, allowing for a more in-depth exploration of participants' thoughts and experiences. According to Ates and Aktamis (2024) interviews allow participants to expand upon and explain their responses. This flexibility allows for a richer understanding of participants' viewpoints and ensures their voices are heard and respected. By actively listening to participants and permitting them to express themselves freely, researchers can gain valuable insights that may not be evident in written or quantitative data alone (Lewis & Thornhill 2019).

Using interviews as an instrument in this study, the aim was to capture the complexity and depth of participants' experiences in the transition to virtual work. The researcher could comprehensively understand the challenges, opportunities, and perceptions surrounding virtual work within the SACAA organisation through engaging conversations and open dialogue.

In summary, interviews were a valuable data collection instrument in this study because they facilitated direct engagement, encouraged open conversations, and allowed participants to elaborate on their responses. By harnessing the strengths of interviews, the researcher aimed to gather rich and nuanced data to analyse the transition to virtual work within SACAA comprehensively.

1.8.6 Face-to-face semi-structured interviews

As defined by Bernard (2011), a semi-structured interview involves a written list of questions and topics that should be covered in a particular order. These interviews are typically conducted using interview guides, which provide a framework for the discussion. Johannessen, Christoffersen and Tufte (2020) argue that a partially structured and open interview guide balances standardisation and flexibility. This approach allows for comprehensively exploring the research topic from the participants' perspective.

In this study, arrangements were made with each participant regarding the interview's time, date, and location before conducting the interviews. All semi-structured interview sessions were conducted physically with the participant. Each interview lasted approximately 30 minutes, allowing for a focused and productive discussion within the allocated time frame. According to Yang and Potts, (2024) this time limit ensured that the interviews remained concise and manageable while allowing participants to express their thoughts and experiences. By adopting a semi-structured interview approach and this study aimed to gather valuable insights from participants while respecting their time and convenience (Yang & Potts, 2024). The structured yet flexible nature of the interviews will enable a thorough exploration of the research topic, contributing to a comprehensive understanding of the transition to virtual work within the SACAA context.

1.8.7 Data Preparation

The audio recordings of the interviews were transcribed manually using Microsoft Word. The transcriptions focussed on the words spoken and how they were told, as Saunders et al. (2019) emphasised. Therefore, non-verbal communication cues such as body language, gestures, or incomplete sentences were incorporated into the transcriptions to understand the interviews comprehensively. Moreover, the interviewees' questions and comments were included in the transcriptions to ensure accuracy and identify any potential information gaps. By including this additional contextualised information, the transcriptions captured essential details beyond the interview responses, allowing for a more holistic interpretation of the recordings.

1.8.8 Data Analysis Method

Data analysis is a crucial step in research that involves organising and making sense of large data volumes, as Bryman (2012) highlights. This data can either be primary, collected directly from participants, or secondary, sourced from existing texts such as books, academic journals in both written and electronic formats, and government publications initially gathered for other primary purposes.

In the case of qualitative data, the data collection approach includes transcribing, coding, and analysis. Johannessen et al. (2020) emphasise that qualitative data is subjective and requires careful analysis and interpretation. This study employed an inductive approach, allowing themes to emerge as the research progressed. This

approach facilitated reflection on the generated data and identified gaps, prompting the study to collect additional data whenever necessary.

The data analysis process is divided into two main parts. Exploratory analysis and coding were conducted to familiarise oneself with the data and identify preliminary patterns or themes. This phase served as a foundation for further analysis. Subsequently, more focused analysis and coding were performed to delve deeper into specific themes, drawing conclusions and generating meaningful insights.

By following a systematic data analysis approach, researchers can extract valuable information from their data, uncover patterns, and provide a comprehensive interpretation of their findings.

1.8.9 Thematic Data Analysis

The study utilised thematic data analysis as the method to organise and draw conclusions from the collected data. Thematic analysis is a comprehensive qualitative data analysis approach that involves classifying topics and patterns within the data, as defined by (Wagner, Kawulich & Garner, 2012). It allowed the study to organise and describe the collected information effectively. Thematic analysis is a widely recognised method in qualitative research that focuses on identifying and interpreting patterns of significance within a dataset, as outlined by the University of Auckland (2017).

Braun and Clarke (2006) propose a six-step process for conducting thematic analysis. This process includes familiarising oneself with the data, generating initial codes, searching for themes, defining and naming the themes, and finally, generating the report. After collecting the data, the raw data were categorised, synthesised, and coded using thematic analysis to identify recurring themes. These themes were then organised according to different research areas explored in the interviews. The data were presented or reported based on the identified themes, allowing for a clear and systematic understanding of the findings. By employing thematic data analysis, the researcher aimed to gain insights into the patterns, meanings, and relationships within the collected data, ultimately leading to the generation of meaningful conclusions and a comprehensive understanding of the research topic.

1.8.10 Initial Data Analysis and Coding

The initial data analysis commenced to shape the focus of data collection. The analysis occurred concurrently with data collection and continued thereafter to ensure accuracy and provide a comprehensive understanding of the interview context (Saunders et al., 2019). During the initial analysis phase, notes and comments were documented to track the development of ideas and potential directions for analysis. According to Saunders et al. (2019) this interactive approach enabled early exploration of emerging topics and identification of relationships within the collected data. By doing so, the research question's direction and nature was established before the completion of data collection.

After transcribing the data, initial coding was conducted to initiate the analysis process. Saunders et al. (2019) define coding as the process of categorising lines, sentences, or paragraphs in interview transcripts to explore the meaning of the data. Coding helps organise information into relevant topics, as described by Saldana (2015). However, according to Charmaz (2014), initial coding should be an ongoing process to define underlying conceptual categories and remain open to theoretical possibilities within the identified data. Given the study's short duration and small number of participants, the researcher conducted data analysis manually. The study aims to uncover meaningful insights, identify key themes, and provide a rich and nuanced understanding of the collected data by engaging in an iterative and systematic analysis process.

Conclusion, Limitations, and Recommendations

Finally, the conclusions will be based on the findings and their integration with the theory. The limitations of the research will be discussed, and recommendations will be made in terms of the transition from traditional office to virtual work.

1.9 CHAPTER LAYOUT

This study consists of seven chapters structured as follows:

Chapter 1: Introduction

This chapter serves as an introduction to the study, providing a comprehensive background of the topic and presenting the research problem. It clearly states the research aim, outlines the objectives, and formulates the research questions that will guide the investigation. Furthermore, it highlights the significance of the study,

underlining its relevance and potential contributions to the field. Lastly, this chapter provides an overview of the layout of the subsequent chapters, offering a roadmap for the reader to navigate through the research findings and discussions.

Chapter 2 Virtual work in the aviation industry

This chapter offers background information on the aviation industry, specifically focusing on the SACAA. It provides an overview of SACAA, including details on the size of the organisation, the types of employees it employs, and the nature of work carried out by the authority. The chapter explores how work is traditionally executed within SACAA, highlighting the traditional workforce structure and practices.

Chapter 3: Traditional office work

This chapter reviews existing literature related to the first research aim and aims to conceptualise the concept of the traditional workforce within an organisational context. The literature review will delve into relevant studies, theories, and frameworks to explore the key components and characteristics associated with a traditional workforce. By examining the existing body of knowledge, this chapter aims to conceptualise what constitutes a traditional workforce in an organisational setting. The conceptualisation of the traditional workforce construct will provide a foundation for the subsequent chapters, facilitating a deeper exploration of the research topic and the achievement of the overall research objectives.

Chapter 4: Virtual office work

This chapter is dedicated to reviewing the second body of existing literature, specifically focusing on conceptualising the virtual workforce. It examines the relevant literature that addresses the issues and problems associated with the virtual workforce within the research domain. By analysing the reviewed literature, this chapter aims to derive a research model that encompasses the critical aspects of the virtual workforce concept.

Chapter 5: Research Methodology

This chapter focuses on providing the rationale for the chosen research methodology. It discusses the reasons behind selecting a specific research methodology that aligns with the research objectives and allows for the effective investigation of the research

questions. The chapter also justifies the appropriateness of the chosen methodology in addressing the research problem and gathering relevant data.

Chapter 6: Data analysis and results

The study's findings are presented in graphical form, allowing for a visual representation of the analysed data. The data is thoroughly analysed, discussed, and interpreted, considering the research questions and objectives.

In the analysis and interpretation of the findings, a connection is established between the findings and the reviewed literature. This allows for identifying similarities or divergences with existing theories, concepts, or frameworks. By linking the findings to the relevant literature, the study aims to provide a deeper understanding of the research topic and contribute to the existing body of knowledge.

Chapter 7: Conclusions, limitations, and recommendations

This chapter presents a skilfully created collection of qualitative results. Each piece of information is like a thread showcasing our research's deep and intricate nature. As the study dives into these findings, a harmonious blend of different perspectives becomes evident, shedding a bright light on the complex and varied aspects of the subject. Delving into the depths of the experiences and perceptions of SACAA employees as they navigate the dynamic shift from traditional to virtual workspaces, this section distils the essence of their transformation.

1.10 CHAPTER SUMMARY

In this chapter, the background and motivation for the study are discussed, along with the problem statement and objectives of the research. The motivation for conducting this study stems from the need to investigate the effect of the transition from a traditional office to a virtual office within the organisation's context. SACAA recognises the importance of addressing and minimising the risks associated with virtual workplace issues that may arise with digitalisation. The unique nature of SACAA as an organisation presents an opportunity to develop specific strategies that can effectively enable the virtual workforce. The study aims to contribute to developing these strategies

by examining the challenges and opportunities associated with transitioning to a virtual work environment within the organisation.

In today's world, a virtual environment is considered suitable due to its advantages. The lack of direct interaction with co-workers allows employees to focus on achieving results. Adapting traditional concepts derived from the traditional workspace to the constantly changing environment can frustrate employees. Therefore, a smooth and transparent transition to virtual work would be more beneficial for the organisation. The empirical study will explore employees' experiences, perceptions, and challenges while transitioning to virtual work within SACAA. The research design and methodology adopted for this study will be discussed, ensuring the appropriate approach is used to gather and analyse relevant data. By addressing these aspects, the chapter lays the foundation for the subsequent chapters, which will delve deeper into the research findings and analysis.

CHAPTER 2

SACAA WORKFORCE

2.1 INTRODUCTION

The COVID-19 pandemic has profoundly impacted various industries worldwide, severely affecting the aviation industry. The pandemic has resulted in significant disruptions to global travel and aviation operations, leading to financial challenges and operational changes for organisations within the industry. In this context, it is essential to provide an overview of SACAA as an organisation and shed light on how work is carried out within SACAA, including whether it is executed virtually or in an office setting.

SACAA serves as the regulatory body responsible for overseeing civil aviation safety and security in South Africa. Its primary role is to ensure that aviation operations within the country comply with national and international safety standards, aiming to promote a safe and efficient aviation system. The organisation plays a critical role in maintaining the integrity and safety of the aviation industry in South Africa. The organisation employs diverse professionals with expertise in various aviation safety and regulation fields. This may include aviation safety, engineering, air traffic management, legal, administrative roles, and more professionals. Each of these positions plays a crucial role in carrying out SACAA's mandate and ensuring the safety and compliance of the aviation industry in South Africa.

The COVID-19 pandemic has significantly shifted how organisations, including SACAA, conduct business. In response to the global health crisis, organisations worldwide have implemented measures to prevent the spread of the virus, such as virtual work arrangements, enhanced health and safety protocols, and the adoption of virtual communication tools. SACAA adapted its work practices, accordingly, striving to maintain operational effectiveness and ensure the continued delivery of its regulatory functions.

SACAA plays a pivotal role in ensuring and maintaining aviation safety and security standards in South Africa. Comprising a team of highly skilled professionals with diverse

expertise, the organisation is instrumental in facilitating the safe and efficient functioning of the aviation industry. This study seeks to offer valuable insights into the virtual experiences of SACAA employees amid the COVID-19 lockdown. It aims to shed light on their successful adaptation to the challenges of virtual work and the strategies they employed to ensure continuity during these unprecedented times.

By examining the organisation's response to the lockdown restrictions and the subsequent adoption of a hybrid work model, this research provides a comprehensive understanding of SACAA's dynamic approach to workforce management. The virtual experiences of SACAA employees during the lockdown period serve as a critical case study in navigating the complexities of virtual work in a safety-critical industry. This study aims to highlight the resilience and resourcefulness of SACAA's workforce, which allowed them to maintain operational effectiveness while ensuring that aviation safety was never compromised.

The investigation into the post-lockdown phase explores how SACAA transitioned to a hybrid work model, combining virtual and in-office work. Understanding this adaptation is essential for SACAA and other organisations in the aviation sector seeking to implement flexible work arrangements while upholding safety and security standards. By illuminating the challenges, successes, and lessons learned from SACAA's virtual work experiences and post-lockdown adjustments, this study offers valuable guidance for optimising virtual work environments and cultivating a harmonious and efficient workforce in the aviation industry.

Ultimately, the findings will contribute to the broader discourse on adaptable work models and safety measures in the face of unprecedented global events. By exploring the virtual experiences of SACAA employees and their strategies for coping with virtual work, this research aims to provide valuable insights and recommendations that can contribute to a smoother adjustment to new workplaces and promote employee well-being and productivity.

In conclusion, this study contributes significantly to existing knowledge by illuminating the virtual experiences of SACAA employees throughout the pandemic and their subsequent transition to virtual work, followed by adopting a hybrid model in the post-

pandemic era. By recognising the challenges inherent in uncertain and digital work environments, the research aims to offer valuable insights that can guide organisations and employees as they adapt to the evolving workplace landscape.

2.2 The impact of COVID-19 pandemic in aviation

On March 18, 2020, the South African Minister of Transportation implemented regulations for the civil aviation sector, entrusting SACAA with additional responsibilities that include developing guidelines. The following day, on March 19, 2020, the Director of Civil Aviation (DCA) issued comprehensive instructions to airlines, offering specific guidance on the regulations introduced by the Minister.

In response to the pandemic, the aviation industry has actively produced various resources to navigate the challenging circumstances. This includes the development of Civil Aviation Regulations (CARs) and Civil Aviation Technical Standards (CATS), operational and health regulations, as well as instructions, protocols, guidelines, and standard operating procedures. These resources serve as directives for the industry, outlining the necessary measures to be taken as aviation operations gradually resume during the pandemic.

On March 20, 2020, the DCA issued guidance specifically directed at airports, clarifying the new rules introduced by the Minister of Transport. This communication ensured that airports were well-informed and aligned with the regulatory changes to facilitate compliance and smooth operations. In response to the evolving situation, SACAA's Aviation Medicine (AvMed) department took proactive steps to provide first aid and CPR instructions to cabin crew examiners and instructors on 20 March 2020. This training initiative demonstrates SACAA's commitment to ensuring the safety and well-being of aviation personnel during the pandemic.

The collaborative efforts between regulatory bodies such as SACAA, airlines, airports, and training organisations have been crucial in establishing a coordinated approach to address the challenges posed by the pandemic. By issuing guidelines, regulations, and

instructions, these entities strive to maintain safety standards, protect public health, and facilitate the resumption of aviation operations responsibly and controlled.

2.3 THE HYBRID MODEL

The implementation of a hybrid work model at SACAA was a strategic response to the challenges posed by the COVID-19 pandemic and the evolving nature of work environments. As highlighted by Gerdeman (2021), SACAA swiftly adapted to the changing landscape by embracing a hybrid approach to ensure compliance with COVID-19 guidelines while maintaining essential services. Under the hybrid arrangement, SACAA divided its workforce, with some employees designated to work on-site to service clients, while others operated virtually. This proactive approach enabled SACAA to uphold critical services while prioritising the health and safety of its employees, aligning with the gradual easing of lockdown measures (Gerdeman, 2021).

The adoption of the hybrid model reflects a broader trend in the modern work landscape, where traditional office setups are being reevaluated in favour of more adaptable and distributed work structures (Gerdeman, 2021). This shift acknowledges the preferences of employees for flexible work arrangements, contributing to increased job satisfaction and productivity. However, the transition to a hybrid work model presented SACAA with various challenges, including managing communication channels, technology infrastructure, and protocols to facilitate effective collaboration between on-site and virtual employees. Despite these challenges, SACAA's commitment to maintaining operational continuity and prioritising employee well-being has driven the successful implementation of the hybrid model (Jaqua, 2022).

The hybrid model recognises that one-size-fits-all office setups may not cater to the diverse needs of employees, particularly knowledge workers (Gerdeman, 2021). While some individuals may thrive in a traditional office environment, others have experienced enhanced productivity and work-life balance through virtual work arrangements (Jaqua, 2022). This diversity in preferences underscores the importance of flexibility and choice in the modern workplace, allowing employees to work from various locations while maintaining performance and well-being.

In conclusion, the implementation of the hybrid model at SACAA reflects a strategic response to the changing dynamics of work environments, emphasising flexibility, employee well-being, and operational resilience. By embracing this innovative approach, SACAA demonstrates its commitment to adapting to evolving circumstances while maintaining high standards of service delivery and employee satisfaction.

2.4 INTERNATIONAL CIVIL AVIATION ORGANISATION (ICAO)

ICAO promotes collaboration among States and various stakeholders to foster a harmonised and progressive approach to aviation safety. The industry participants encompass ICAO itself, States that have ratified the 1944 Chicago Convention on International Civil Aviation, regional and international aviation organisations, regional aviation safety groups (RASGs), regional safety oversight organisations (RSOOs), as well as organisations dedicated to event and incident investigations within the realm of regional aviation.

Achieving global aviation safety objectives relies on a comprehensive integration of efforts and a systematic approach to implementing the aviation safety strategy. The progressive implementation of the provisions outlined in the framework can ensure the successful and uniform application of aviation safety regulations across all 193 member countries of the ICAO.

By fostering cooperation and coordination among these diverse entities, ICAO strives to enhance aviation safety globally. This collaborative approach ensures that best practices, standards, and regulations are consistently applied across jurisdictions, facilitating civil aviation's safe and efficient operation worldwide.

2.4.1 ICAO 8 Critical Elements

ICAO established a framework known as the "ICAO 8 Oversight Critical Elements" to ensure effective aviation safety oversight by member states. These elements cover various areas crucial for maintaining safety standards in civil aviation.

Here is a summary of each element:

- **Primary Aviation Legislation:** Member states must have appropriate primary legislation to regulate and oversee civil aviation activities within their jurisdiction. This legislation should cover aircraft operations, airworthiness, licensing, and personnel training.
- **Specific Operating Regulations:** Member states must establish and enforce specific regulations related to aviation safety. These regulations should address aircraft certification, air operator certification, air traffic services, and aerodrome operations.
- **State Civil Aviation System and Safety Oversight Functions:** Member states must establish an organisational structure and allocate resources for practical safety oversight functions. This includes setting up a civil aviation authority responsible for regulatory oversight and safety inspections.
- **Technical Personnel Qualifications and Training:** Member states should ensure that personnel responsible for aviation safety oversight are appropriately qualified and trained. This includes personnel involved in inspections, audits, and certification processes.
- **Technical Guidance, Tools, and the Provision of Safety-Critical Information:** ICAO provides technical guidance and tools to assist member states in conducting safety oversight activities. This element emphasises the importance of using standardised methodologies and sharing safety-critical information to enhance safety oversight capabilities.
- **Licensing, Certification, Authorisation, and Approval Obligations:** Member states are responsible for establishing and enforcing licensing, certification, authorisation, and approval processes for aviation personnel, organisations, and facilities. These processes should ensure compliance with safety standards and regulatory requirements.
- **Surveillance Obligations:** Member states must conduct continuous surveillance to assess compliance with safety regulations. This includes regular inspections, audits, and assessments of aviation organisations, facilities, and personnel.
- **Resolution of Safety Concerns:** Member states should have mechanisms to promptly identify, report, and resolve safety concerns. This element emphasises the importance of maintaining an effective safety reporting and investigation system to address safety-related issues.

By adhering to these eight critical elements, member states can establish robust oversight systems that ensure compliance with international aviation safety standards and enhance the safety of civil aviation operations within their jurisdiction.

Figure 2.1 The eight critical elements of ICAO



Source: Adapted from SACAA Stakeholder Management Strategy, 2020/21-2024/25

2.5 SOUTH AFRICAN CIVIL AVIATION AUTHORITY (SACAA)

SACAA operates with a workforce of 519 employees located in Midrand (Gauteng) and Cape Town (Western Cape) (SACAA Stakeholder Management Strategy, 2020/21-2024/25). The executive management plays a crucial role in providing strategic leadership to the organisation and coordinating policy formulation. Their responsibilities include establishing and maintaining positive relationships with industry stakeholders and coordinating international relations with organisations such as the Southern African Development Community (SADC), ICAO, the African Civil Aviation Commission (AFCAC), and other civil aviation authorities. On the other hand, senior management is responsible for the day-to-day coordination of operational functions.

To fulfil its mandate, SACAA has implemented an integrated management system (IMS) encompassing various components such as a Quality Management System (QMS), a Safety Management System (SMS), Occupational Health and Safety (OHS), and ICAO compliance. As a regulatory body, SACAA recognises the need to ensure the effectiveness and compliance of virtual work among its employees, adhering to its policies and procedures to enforce regulations and uphold international standards. By

maintaining a robust management system and ensuring adherence to regulatory requirements, SACAA aims to promote a safe, efficient, and compliant civil aviation sector. The organisation's commitment to upholding international standards and fostering solid relationships with industry stakeholders is integral to its mission of ensuring aviation safety and advancing the development of civil aviation in South Africa.

SACAA operates as a public institution and is categorised under Schedule 3A of the Public Finance Management Act (PFMA), as stated in SACAA Stakeholder Management Strategy 2020/21-2024/25. SACAA was established per the SACCA Act 40 of 1998 and replaced by the Civil Aviation Act 13 of 2009. The Civil Aviation Act establishes SACAA as an independent entity responsible for maintaining and enhancing safety and security standards within the civil aviation sector. SACAA achieves this by adhering to the Standards and Recommended Practices (SARPs) set by the International Civil Aviation Organisation (ICAO) while considering the specific regional context.

As a regulatory body, SACAA recognises its crucial role in enforcing aviation laws and regulations in the aviation industry. This includes ensuring compliance with international standards and recommended practices to promote safety and security. By upholding these standards, SACAA contributes to the overall development and advancement of civil aviation in South Africa. SACAA's commitment to maintaining high standards and promoting compliance with ICAO SARPs underscores its dedication to fostering a safe and secure aviation environment. The organisation's regulatory responsibilities are vital in safeguarding the interests of all stakeholders involved in the civil aviation sector, including passengers, airlines, and other industry participants.

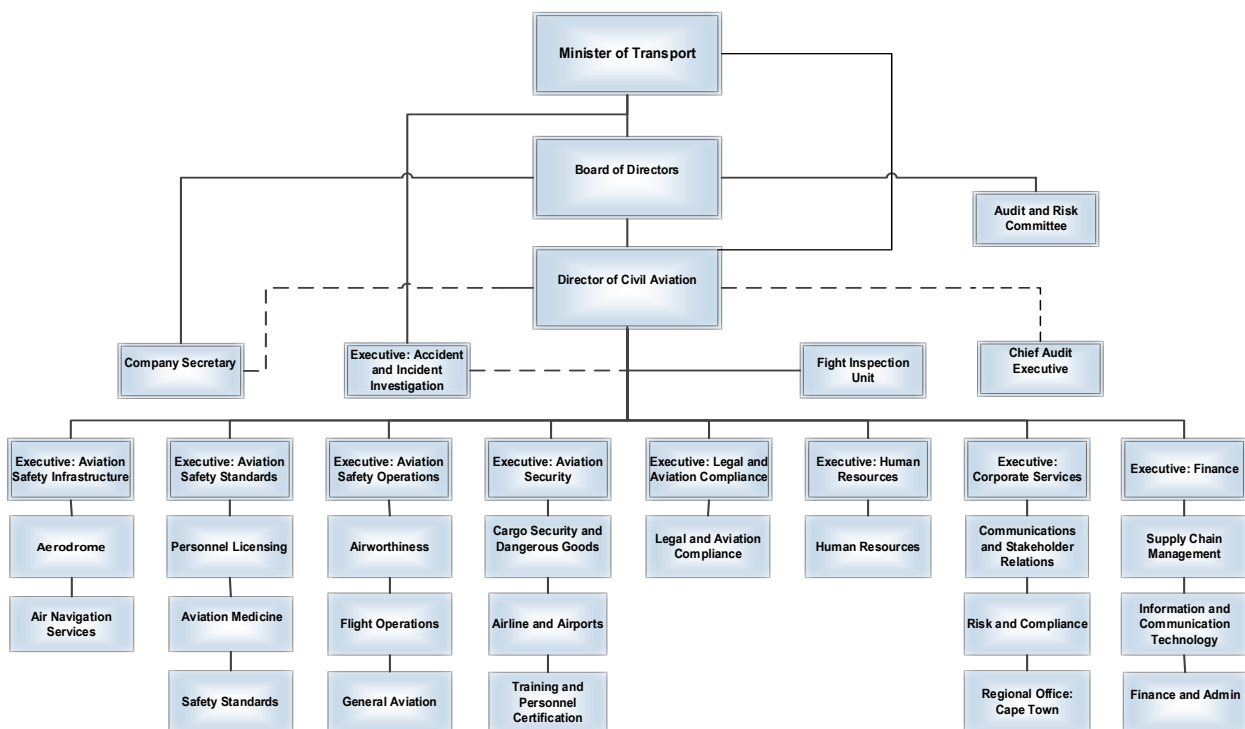
2.5.1 The SACCA Structure

The COVID-19 pandemic has brought about significant changes in various aspects of the aviation industry, including video conferencing, local excursions, and business and international travel, as noted by Yiu et al. (2022). As the sector strives to recover, it will also undergo fundamental reforms, such as integrating unmanned aerial systems (UAS), as highlighted by Tisdall and Zhang (2020). As Albers and Rundshagen (2020) discussed, these ongoing changes in the aviation industry will have implications for the skill sets required for career advancement. Under the authority of the Civil Aviation Act,

2009 (Act No. 13 of 2009), the South African Civil Aviation Authority (SACAA) is responsible for enforcing the standards set by the International Civil Aviation Organisation (ICAO) to ensure aviation safety and security. As a signatory state of ICAO, the Republic of South Africa is committed to collaborating with other nations to promote secure skies. The Department of Transport is coordinating this effort, while all state aviation agencies must work together to fulfil their responsibilities.

ICAO Contracting States must consider the essential safety and security oversight components to establish an efficient system. Successfully implementing safety and security-related policies and procedures depends on these critical aspects, which build a robust safety and security oversight system. It is expected that states will implement these essential components in a manner that recognises the shared responsibilities between the state and the aviation industry. By prioritising safety and security monitoring and aligning with ICAO standards, SACAA and other aviation stakeholders in South Africa are working towards maintaining high levels of safety and security in the aviation industry. The following figure illustrates the organisational structure of SACAA, highlighting the key departments and their interrelation.

Figure 2.2 SACAA structure



Source: Adapted from SACAA Stakeholder Management Strategy, 2020/21-2024/25

SACAA consists of three core departments that play a crucial role in fulfilling the organisation's primary mandate. These departments carry out specific aviation infrastructure, safety, and security duties.

In aviation infrastructure, SACAA ensures the development and maintenance of a robust aviation infrastructure within South Africa. This includes overseeing the planning, design, construction, and maintenance of airports, air traffic management systems, navigation aids, and other essential aviation facilities. By implementing the Global Aviation Safety Plan and the Global Air Navigation Plan, SACAA aligns its activities with international, regional, and national initiatives to foster the systematic growth of international civil aviation (Bugayko, Smith, Johnson, 2023).

The Global Aviation Safety Plan serves as a roadmap for assuring aviation safety on a global scale. It relies on establishing and effectively implementing national control mechanisms. This plan provides the aviation community worldwide with an actionable framework to enhance safety measures and address potential risks. According to Bugayko et al. (2023), SACAA contributes to the systematic development and improvement of aviation safety by coordinating international, regional, and national efforts.

In collaboration with relevant stakeholders, SACAA's Air Safety Infrastructure Division (ASI) focuses on the strategic planning and implementation of measures to enhance the aviation infrastructure within South Africa. By aligning with global aviation safety plans and coordinating international, regional, and national activities, SACAA contributes to international civil aviation's overall growth and safety.

The ASI of SACAA plays a critical role in ensuring the safety of South African airports, helistops, heliports, and airspace. The division is responsible for enforcing safety regulations to ensure that off-airport structures do not pose risks to air navigation. This includes monitoring compliance with safety regulations and implementing measures to address infrastructural deficiencies that may compromise aviation safety (Bugayko et al., 2022). In addition, the ASI is responsible for licensing air traffic controllers and approving flight procedures. The division maintains a high level of safety in air traffic

operations by ensuring that air traffic controllers meet the necessary qualifications and that flight procedures comply with established standards.

The ASI is also crucial in disseminating aeronautical safety information to the industry. The division promotes a safety culture by informing stakeholders about safety-related matters per the International Civil Aviation Organisation (ICAO) rules. It helps aviation organisations stay updated on critical safety aspects. Additionally, the division actively tracks trends and indicators in aviation safety, facilitating the implementation of focused safety programmes to rectify identified deficiencies. It also strategises for efficient responses to disruptions in the aviation system stemming from natural disasters, conflicts, or other factors. These pre-emptive measures play a crucial role in upholding a secure and resilient aviation environment in South Africa, as underscored by Bugayko et al (2022).

The development of aviation infrastructure is vital for the growth of the aviation industry. As mentioned, the completion of the third runway at the Hong Kong International Airport is an example of ongoing efforts to enhance infrastructure and accommodate increased air travel demand. The Air Safety Infrastructure Division, in alignment with IATA forecasts, works to ensure that these infrastructure improvements are implemented safely and by established regulations, thus facilitating the growth and development of the aviation industry.

Overall, the ASI of SACAA plays a pivotal role in safeguarding the safety of South African aviation infrastructure, monitoring compliance with regulations, licensing air traffic controllers, disseminating safety information, and responding effectively to disruptions. By maintaining high safety standards and promoting the development of safe aviation infrastructure, the division contributes to the overall safety and growth of the aviation industry in South Africa.

2.5.2 Aviation Safety Operations (ASO)

The aviation Safety Management System (SMS) is an indispensable element within the contemporary ICAO aviation safety strategy, offering a systematic framework for overseeing safety within aviation entities. This pivotal role of SMS in enhancing safety is underscored by Bugayko et al. (2022). The SMS incorporates essential

organisational structures, areas of responsibility, policies, and procedures to ensure the security of products and services offered by aviation organisations. Adhering to the ICAO's systemic approach to aviation safety challenges is vital in maintaining a secure aviation environment.

To ensure long-term sustainability and resilience amidst adversities such as the COVID-19 pandemic, the aviation sector must confront three pivotal technological hurdles, as outlined by Sun et al. (2021). These hurdles encompass the development of cutting-edge aircraft designs featuring adaptable cabin configurations and inventive layouts, the establishment of forward-thinking airports equipped with touchless functionalities and seamless integration with the Internet of Things, and the creation of progressive airlines integrating digitised passenger data management and artificial intelligence-driven operations (Sun et al. 2021). Overcoming these technological barriers demands significant advancements in technology alongside regulatory and procedural reforms, tasks falling under the jurisdiction of the aviation safety oversight department.

The ASO ensures regulatory compliance and safety control for all Air Operators, Aviation Training Organisations, Designated Flight Examiners, Designated Aviation Medical Examiners, and Aircraft Maintenance Engineers. This department plays a crucial role in conducting flight inspections, maintaining examination and testing standards, and upholding aviation medical standards in the South African aviation context. Additionally, the ASO oversees the development of the next generation of aviation professionals through vocational education and on-the-job training. However, the COVID-19 pandemic has presented challenges in carrying out training activities, potentially limiting the capabilities required for the aviation industry. Therefore, the ASO's mandate heavily relies on the availability of trained specialists who play vital roles in the aviation sector. Furthermore, the ASO department ensures the safety of aviation navigation aids, verifying their suitability for use. The ASO maintains a secure and efficient aviation system by implementing rigorous safety protocols and inspections.

Implementing the aviation safety management system, addressing technological challenges, regulatory compliance, and safety oversight of various aviation entities, developing aviation professionals, and ensuring the safety of navigation aids are among the crucial responsibilities of the ASO department. By fulfilling its mandate, the

department plays a pivotal role in providing the overall safety and success of the aviation industry in South Africa.

2.5.3 Aviation Security

The events of 9/11 marked a turning point in global aviation security, leading governments worldwide to reevaluate their approaches to ensure the safety of civil aviation. The Republic of South Africa undertook significant measures to enhance aviation security. One crucial step was the implementation of the 19th Annex to the Chicago Convention, which focuses on aviation security management, in November 2013, as highlighted by Bugayko et al. (2022). This step represented an essential milestone in the evolution of global civil aviation security.

As part of its strategic focus on aviation security, SACAA established a dedicated Aviation Security department. The primary purpose of this department is to oversee and manage aviation security within the Republic of South Africa, particularly at airports, among airlines and cargo carriers, and in the secure transportation of hazardous materials. The Aviation Security Department plays a crucial role in ensuring compliance with relevant laws and standards related to aviation security. The department maintains a safe and secure aviation environment by establishing and enforcing these measures.

The pandemic has had a profound impact on aviation security worldwide. The continuous pandemic and the sudden changes in the industry have presented significant challenges for organisations in maintaining their operational status quo, as noted by Belser and Prescod (2021). The diminished passenger confidence, as identified by Rothengatter, Zhang, Hayashi, Nosach, Wang and Oum (2021), has made it difficult for mass transportation modes, including aviation, to resume their predicted growth levels from before the pandemic. This context has necessitated adaptations and adjustments in aviation security to address new and emerging threats.

South Africa has taken substantial measures to enhance aviation security in response to global events such as 9/11. Establishing the Aviation Security Department within SACAA reflects the country's commitment to managing and ensuring aviation security across various sectors. However, the challenges posed by the pandemic and

passenger confidence changes require ongoing vigilance and adaptability to maintain a robust aviation security system.

2.6 SACAA PROCESS FLOW

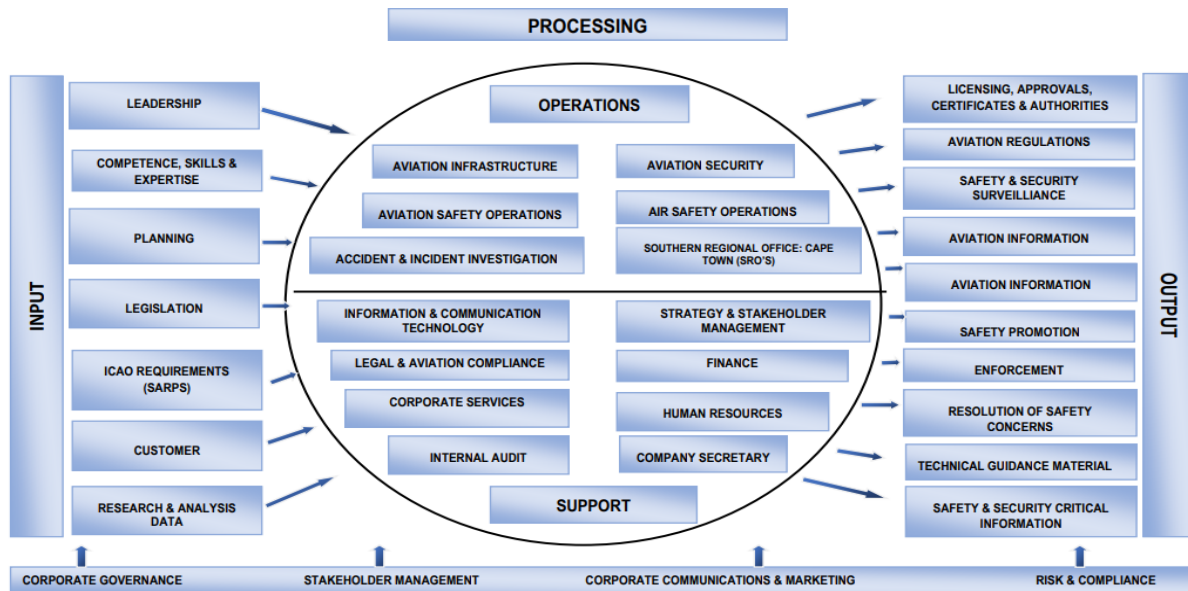
As illustrated by Figure 4.3, SACAA Governance encompasses the framework of rules, practices, and structures that guide an organisation's direction and control. It establishes the relationships and responsibilities among an organisation's leadership, board of directors and other stakeholders. Effective governance is essential for accountability, transparency, and sustainable decision-making. The World Economic Forum's report, titled 'The New Paradigm: A Roadmap for an Implicit Corporate Governance Partnership' (World Economic Forum, 2022), underscores the contemporary transition towards stakeholder-oriented governance principles, positioning them as a foundational framework for contemporary corporate governance.

SACAA Stakeholder management involves identifying, engaging with, and satisfying the needs and expectations of all parties interested in or impacted by the organisation. Effective stakeholder management builds trust enhances an organisation's reputation and supports long-term success. The Global Reporting Initiative (GRI) publication titled Stakeholder Engagement for ESG Reporting: Insights from Leading Organisations explores best practices in stakeholder engagement for ESG (Environmental, Social, and Governance) reporting, highlighting the importance of involving stakeholders to drive sustainability efforts (GRI, 2021).

SACAA Corporate communication encompasses the strategies, channels, and messaging organisations employ to communicate with their stakeholders. It plays a vital role in shaping an organisation's image, fostering transparency, and conveying its values and goals. Ragan Communications and Nasdaq's report, The State of Corporate Communications 2021, offers insights into current trends in corporate communication, including the impact of the COVID-19 pandemic on communication strategies and the growing significance of digital channels in corporate communication (Ragan Communications & Nasdaq, 2021).

SACAA Risk and Compliance Management involve identifying, assessing, and mitigating risks while ensuring adherence to relevant laws, regulations, and industry standards. These practices safeguard an organisation's reputation and minimise legal and financial risks. Deloitte's "Global Risk Management Survey 2022" examines how organisations respond to evolving risks, including cybersecurity, supply chain disruptions, and environmental risks. It underscores the importance of proactive risk management in a rapidly changing business environment (Deloitte, 2022). These components collectively define the framework within which SACAA operate, making them critical for achieving sustainable growth and responsible business practices. Staying informed about recent developments in these areas is essential for effective decision-making and long-term success. The following figure provides a detailed representation of circa process flow, illustrating the sequential steps and interactions involved in its core functions. This figure aids in grasping the complexity and thoroughness of the SACAA regulatory framework.

Figure 2.3 SACAA organisational process



Adapted from SACAA Stakeholder Management Strategy, 2020/21-2024/25.

2.7 SACAA OPERATING PRINCIPLES DURING THE PANDEMIC

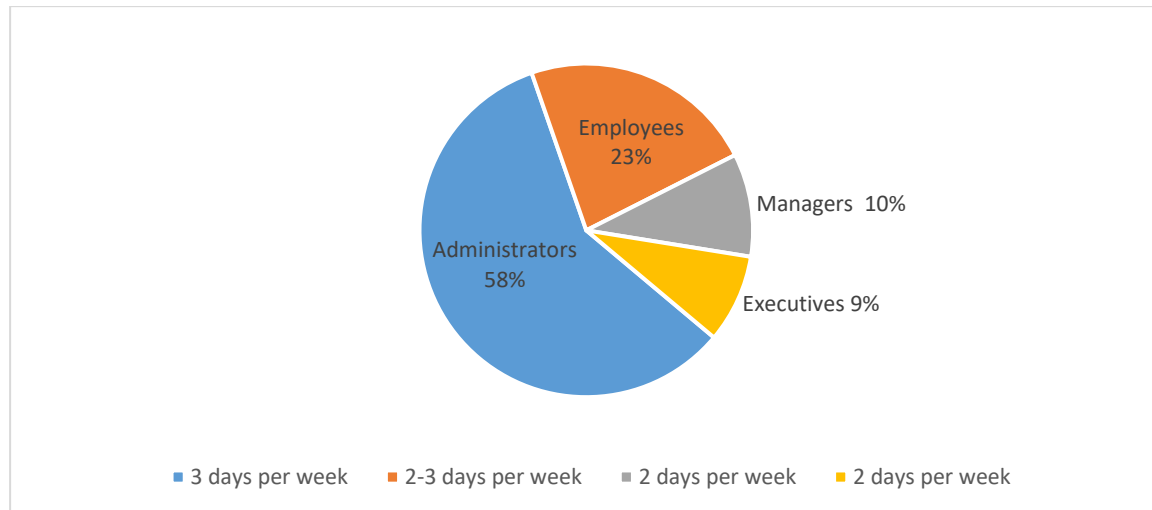
During the pandemic, SACAA implemented policies and principles to guide its employees in conducting business effectively. These measures ensured that customer service requests were handled within the organisation's service level agreement (SLA) time frames. The following eight principles of the process were implemented:

- Requests for customer service were handled within the organisation's SLA time frames, emphasising the importance of timely responses and resolutions.
- Each division had management, administrators, interns, and officers on duty daily, ensuring adequate staffing to address customer needs and operational requirements.
- Calls were routed to available officials based on the rosters provided to the Switchboard, ensuring that incoming calls were directed to the appropriate personnel.
- Calls were first directed to administrators or officers and, if necessary, escalated to managers, ensuring a systematic and efficient handling of inquiries and concerns.
- Landlines of each section or department were forwarded to the administrators or managers on duty each day, ensuring that the designated personnel promptly attended to incoming calls.
- The switchboard was provided with a daily or weekly list of officials on duty, enabling them to route calls accurately and efficiently.
- Direct calls from clients were forwarded daily to available offices via landlines, ensuring clients could reach the relevant officials directly.
- The organisation's website contact information was regularly updated to include officials' email addresses, landlines, and mobile numbers, covering all client service sectors. This facilitated effective communication between clients and the organisation.

These process principles helped SACAA manage its operations and maintain effective communication channels with its stakeholders during the pandemic. By ensuring appropriate staffing, efficient call routing, and up-to-date contact information, SACAA

aimed to provide quality customer service and meet the needs of its clients in a challenging operating environment. Figure 4.4 illustrates the number of days employees work physically at SACAA offices.

Figure 2.4: Office days per week per job title



2.8 CUSTOMER SERVICES DURING PANDEMIC

In response to the challenges posed by the pandemic, SACAA implemented a series of policies and principles to ensure effective business operations. These measures were designed to prioritise customer service and guarantee that all service requests were handled within the organisation's designated time frames, as outlined in their Service Level Agreement (SLA). To support this commitment, SACAA established a robust staffing structure with management, administrators, interns, and officers available in each division daily. This ensured sufficient personnel to address customer needs and fulfil operational requirements, even amidst the uncertainties of the pandemic.

Efficient call routing was another critical aspect of SACAA's strategy. Calls were directed to officials based on predefined rosters, ensuring incoming inquiries were promptly referred to the appropriate personnel. The organisation adopted a systematic approach by routing calls to administrators or officers escalating to managers when necessary. This streamlined process helped optimise the handling of inquiries and concerns, improving efficiency and customer satisfaction.

Furthermore, SACAA implemented effective communication channels by forwarding landline calls from specific sections or departments to the administrators or managers on duty each day. This practice ensured that incoming calls were promptly attended to by the designated personnel, enabling efficient and responsive customer service. The organisation also recognised the importance of keeping the switchboard well-informed. By providing them with up-to-date daily or weekly lists of officials on duty, the switchboard could route calls accurately and efficiently to the appropriate individuals, contributing to a smooth communication flow within the organisation.

In addition to telephone communication, SACAA recognised the significance of maintaining an updated online presence. The organisation regularly updated its website contact information to include officials' email addresses, landlines, and mobile numbers. This comprehensive contact information covered all client service sectors, facilitating effective communication between clients and the organisation, even during the challenging circumstances brought about by the pandemic.

These processes played a vital role in SACAA's ability to manage its operations and maintain effective communication channels with its stakeholders during the pandemic. By prioritising timely and efficient customer service, ensuring adequate staffing, implementing effective call routing, and keeping up-to-date contact information, SACAA demonstrated its commitment to meeting the needs of its clients and stakeholders in a rapidly changing and challenging operating environment.

2.9 SACAA ON HYBRID MODEL

A flexible work arrangement known as a hybrid work model allows employees to alternate between working virtually and physically from an office or other designated location. Since the COVID-19 pandemic caused many organisations to embrace virtual work practices, this approach has grown in popularity. It strikes a compromise between the advantages of in-office work, such as face-to-face cooperation and a sense of community, and the benefits of virtual work, such as increased flexibility and enhanced work-life balance.

According to Biron, De Cieri, Fulmer, Lin, Mayrhofer, Nyfoudi, Sanders, Shipton and Sun (2021), the hybrid work paradigm allows employees to work from home, a co-working location, or a regular office. This flexibility gives a stronger sense of autonomy and control over one's working environment. In a hybrid work arrangement, employees can divide their time between virtual work and in-office work. For example, they might work from home a few days a week and then come into the office for the remaining days (Fernandez-Araoz, Roscoe & Aramaki, 2020). SACAA has created concise recommendations for its staff to adopt the hybrid approach.

Following the publication of the COVID-19 lockdown limits, SACAA started a series of experiments to determine the best course of action for its organisations in the future. One of these experiments involved conducting surveys to decide which hybrid model would be most appropriate for the organisation. The hybrid work model allows employees to balance their personal and professional lives better, reducing commuting time and allowing for more time with family and other personal commitments (Golden, Veiga & Simsek 2021).

Like many other organisations, the work circumstances of SACAA employees changed significantly because of the pandemic. Studies have shown that employees with the flexibility to work virtually part-time have higher job satisfaction and are likelier to stay with their current employer (Davis & Kossen, 2020). While virtual work can lead to improved productivity for some employees, the hybrid work model allows organisations to harness the benefits of both virtual work (e.g., fewer distractions) and in-office work (e.g., face-to-face collaboration) to optimise overall productivity (Bhatia, 2020).

Office work offers group collaboration, connection development, and unplanned interactions. Employees are guaranteed these chances through the hybrid model, which balances them with the benefits of virtual employment (Knight, Smith & Johnson 2021). Organisations adopting the hybrid work model must invest significantly in infrastructure and technology to enable seamless communication and collaboration between virtual and physical teams (Fernandez-Araoz et al., 2020). The pandemic left SACAA with little time to switch from a traditional workforce to a virtual one. However, the organisation has decided to change to the hybrid approach. According to Raghupathi and Raghupathi (2021), maintaining team cohesion, guaranteeing equitable access to

opportunities, and ensuring good communication between teams are some of the issues the hybrid work paradigm may present.

2.10 CHAPTER SUMMARY

The COVID-19 pandemic has catalysed significant transformations across industries worldwide, with the aviation sector being profoundly affected. SACAA, as South Africa's regulatory authority for civil aviation safety and security, has played a crucial role in navigating these challenges. With a diverse team of professionals spanning various aviation safety and regulatory domains, SACAA ensures compliance with national and international standards, safeguarding the integrity and safety of the aviation industry in South Africa.

Amidst the pandemic, SACAA swiftly adapted its operations, embracing virtual work arrangements to maintain regulatory functions effectively. This transition underscores the organisation's commitment to operational resilience and continuity amidst unprecedented circumstances. Furthermore, the subsequent adoption of a hybrid work model reflects SACAA's dynamic approach to workforce management, balancing the benefits of virtual and in-office work to optimise efficiency and safety.

Through this study, we have gained valuable insights into SACAA's virtual work experiences during the pandemic and its transition to a hybrid model post-lockdown. By examining the challenges, successes, and strategies employed by SACAA employees, this research offers practical guidance for organisations in the aviation sector navigating similar transitions. Moreover, it contributes to the broader discourse on adaptable work models and safety measures in the face of global disruptions, fostering a deeper understanding of virtual work environments' complexities and their implications for employee well-being and productivity.

This study illuminates SACAA's journey through the pandemic, shedding light on the organisation's resilience, adaptability, and commitment to maintaining safety standards. By leveraging these insights, SACAA and other aviation stakeholders can optimise their response to future challenges, ensuring the continued safety and efficiency of the aviation industry.

CHAPTER 3

TRADITIONAL OFFICE WORK

3.1 INTRODUCTION

This chapter offers a comprehensive overview of the literature review concerning traditional and virtual work environments. It is divided into five major sections: Traditional Work Environment, Traditional Work Environment Benefits and Challenges, Virtual Work Environment, Virtual Work Environment Benefits and Challenges, and Employee Engagement and Trust. Each section provides valuable insights into the relevant theories and concepts that contribute to addressing the research question.

The chapter begins by presenting the literature's definition of the traditional work environment as a concept. It explores the characteristics, norms, and practices typically associated with traditional workplaces, setting the foundation for understanding the subsequent discussions on benefits and challenges. Following the definition, the chapter delves into a specific focus on the advantages and challenges of the traditional work environment. It explores the importance of face-to-face and informal communication in fostering collaboration and innovation within traditional workplaces. Additionally, it addresses the implications of the COVID-19 pandemic on traditional work settings and how social relations play a crucial role in shaping work dynamics.

The chapter then explains the virtual work environment and examines the concept and its associated benefits and challenges. It explores virtual work's flexibility, cost-effectiveness, and work-life balance advantages. Simultaneously, it addresses the challenges related to communication, coordination, and maintaining a sense of belonging within virtual teams. Furthermore, the chapter highlights the significance of employee engagement and trust within the virtual work environment. It emphasises the role of trust in fostering effective collaboration, building relationships, and enhancing overall team performance in a virtual context.

By organising the literature review into these five sections, the chapter provides a comprehensive understanding of the traditional and virtual work environments. It

highlights the advantages, challenges, and key considerations associated with each, shedding light on the complexities and dynamics of work in both settings.

3.1.1 Traditional Work Environment

▪ Defining the Traditional Work Environment

According to research conducted by Waldorf (2019), the traditional workplace can be defined as a traditional setting where employees spend designated hours working at a specific physical location. An example would be someone working Monday through Friday from 9 a.m. to 5 p.m. An organisation serves as a place where individuals from diverse groups, religions, and backgrounds work towards a shared objective. Each company establishes rules and guidelines that all employees must adhere to (Sarasu, 2021).

In a traditional office environment, co-location is common when employees work nearby (Jones, 2021). This concept embodies the essence of a traditional office setup. These offices have a physical space where employees and clients gather to conduct business (Smith, 2022). The presence of an office allows for personal interaction, instilling a sense of trust in customers. Traditionally, jobs have been structured based on linking an employee's time, location, and tasks. Having everyone in one place allows management to plan events and facilitate internal communication easily (Brown, 2023). The traditional work format fosters sharing social experiences, coordination among colleagues, modelling work behaviours, and exchanging advice (Wilson, 2023).

Working in an office environment can offer advantages in generating new ideas and socialising. Being physically present in an office makes individuals feel like social network members (BBC News, 2021d). Moreover, new employees can learn about the company and its culture through interactions in an office setting ((Vasel, 2021). Waldorf(2019) research supports the notion that socialising new hires contributes to developing a solid organisational culture, which can have positive and negative implications. As culture is morally neutral, different communities and groups may hold diverse perspectives on what is considered appropriate and "moral." Establishing an organisational culture is most effective when people regularly interact, understand the organisation's objectives, and work towards a common goal (Waldorf, 2019).

However, it is essential to acknowledge that the office environment may not suit everyone. According to Flood and Klausner (2018), offices often have a command-oriented and hierarchical bureaucratic culture that requires training and dedication. Therefore, organisations may need to reassess their assumptions about the work environment and their responses to it (Flood & Klausner, 2018). Are these assumptions leading to the best outcomes for stakeholders, including customers, shareholders, and employees? It is essential to examine the underlying values that shape these assumptions and consider if they need to be reevaluated. Organisations must be open to new ideas and be willing to adapt to change to thrive and remain competitive (Savic, 2020).

Organisations face mounting pressure to recalibrate their business methodologies in today's dynamic and swiftly evolving global landscape. Historically, office spaces have functioned as bastions of formalised structures within these organisations. As aptly defined by Beer, Voelpel, Leibold, and Tekie (2019), these structures encompass tangible components that intricately mould employee roles, duties, and interconnections. As an architectural blueprint, they offer a scaffolding to synchronise collective endeavours and realise coveted objectives (Beer et al., 2019). This paradigm underscores the crucial role that organisational frameworks play in steering collaborative efforts toward successful fruition.

However, the emergence of the current pandemic has significantly shifted the importance of physical office spaces. Working from home has become a mandatory practice, as highlighted in Savić's research (2020). The pandemic has unintentionally acted as a catalyst for virtual work, triggering a global reassessment of traditional working norms and the concept of a designated workplace, commonly known as the office (de Lucas Ancillo et al., 2020; Kniffin et al., 2021; Ratten, 2020; Savić, 2020).

Research has shown that the COVID-19 pandemic has fundamentally transformed the world of work. While there was already a gradual increase in virtual employees before the outbreak, the pandemic has made working from home (WFH) the new norm, with virtual meetings becoming increasingly prevalent (Vyas, 2022). Virtual offices, facilitated by information and communication technology, allow employees to work flexibly, blurring the boundaries between work-related activities in terms of time and

location. This shift has resulted in the transfer of workplace stress from physical offices to virtual spaces and vice versa.

The evolving dynamics of virtual work environments present opportunities and challenges for organisations (Wilson, 2023). . As the study navigates this transition, it becomes crucial to understand the implications of this shift on employee well-being, productivity, and organisational effectiveness. By embracing virtual work and leveraging technological advancements, organisations can adapt to the changing landscape, optimise work arrangements, and create a harmonious balance between the virtual and physical workspaces (Brown, 2023).

3.1.2 Advantages And Challenges of The Traditional Work Environment

▪ Face-to-face and Informal Communication

Morrison-Smith and Ruiz (2020) highlight the challenges in deducing team members' objectives and accurately interpreting data in virtual work environments. Asynchronous communication, mainly through text-based tools, lacks social cues and non-verbal indicators, making it difficult to gauge whether written information is effectively understood. This underscores the importance of regular, high-quality discussions for fostering common understanding, as emphasised by Marlow, Lacerenza and Salas (2017). Effective communication in virtual work relies not only on quality but also on the timing and predictability of communication, which is essential for building and maintaining employee trust. Engaging in closed-loop communication by confirming message receipt, following up, and ensuring clear understanding contributes to trust-building efforts.

Informal communication, characterised by face-to-face interaction, is vital in fostering collaboration and enhancing a sense of teamwork (Marlow et al., 2017). These casual interactions often occur spontaneously in corridors or around the coffee maker, as noted by Morrison-Smith and Ruiz (2020). Informal communication promotes information sharing, knowledge exchange, and corrective feedback. These interactions facilitate a sense of camaraderie and strengthen team dynamics.

Replicating the organic nature of informal communication can be challenging in virtual work environments. Therefore, organisations should explore alternative strategies to

encourage casual interactions among virtual team members. Leveraging technology to facilitate virtual coffee chats, informal video meetings, or dedicated channels for non-work-related conversations can help bridge the gap and foster community within virtual teams. Recognising the value of informal communication and creating opportunities for its facilitation can contribute to a more cohesive and collaborative virtual work environment.

Informal communication is vital in organisations and contributes to a positive work environment (Morrison-Smith & Ruiz, 2020). When an organisation adopts an open-door policy, it creates a platform where employees can freely express their thoughts and concerns without the fear of formalities (Rysavy & Michalak, 2020). . This fosters a sense of psychological safety, indicating that the organisation values open dialogue and actively listens to its employees (Brown, 2023). Consequently, social bonds and unity within the team are strengthened, leading to increased trust and understanding among team members.

In virtual work environments, the opportunities for informal communication are often limited compared to traditional office settings, as the emphasis is placed more on formal communication channels and work-related activities rather than knowledge sharing and information exchange (Morrison-Smith & Ruiz, 2020). However, organisations must create mechanisms facilitating informal interactions among virtual team members. This can include establishing communication channels for non-work-related discussions, encouraging virtual coffee chats or social gatherings, or incorporating informal check-ins during virtual meetings.

One-on-one conversations between supervisors and virtual employees are crucial for building rapport and trust. By allowing the employee to set the agenda and take notes to ensure effective communication, supervisors can demonstrate their commitment to understanding and supporting their virtual team members (Rysavy & Michalak, 2020). Clear and concise communication is crucial to avoiding misunderstandings in virtual work environments. Providing straightforward and brief comments helps virtual employees feel more at ease and reduces overthinking (Altman, 2020).

Trust plays a pivotal role in the success of virtual work environments. Organisations need to establish a direct line of communication with virtual employees and foster an environment where trust is cultivated and maintained. This can be achieved through consistent and transparent communication, providing opportunities for virtual employees to voice their concerns or suggestions, and demonstrating trust in their ability to work autonomously and meet their responsibilities.

In summary, promoting informal communication, establishing open communication channels, and building trust are essential strategies for creating a positive virtual work environment. Organisations that prioritise these aspects can enhance team collaboration, strengthen relationships, and effectively navigate the challenges of virtual work.

- **COVID-19 Pandemic**

The COVID-19 pandemic has brought to light various long-standing flaws and challenges in how businesses carry out their daily operations, prompting organisations to reassess the need for face-to-face interactions and explore the extent to which virtual work can be implemented (BCG, 2020; PricewaterhouseCoopers, 2020b). This shift in work dynamics has become imperative, making it essential for organisations to consider and decide on the most suitable approach. The workplace is undergoing an inevitable transformation, transitioning from predominantly on-site operations to a combination of face-to-face interactions, virtual work, or a hybrid model (World Economic Forum, 2020a).

The global health crisis has disrupted the labour market, leading to rapid and widespread experimentation with flexible work arrangements and adopting centralised virtual working setups (Vyas, 2022). While many organisations recognise the importance of digital transformation, they have hesitated to embrace the necessary changes that may disrupt established norms and routines. However, the sudden and widespread need for virtual work during the pandemic has accelerated the adoption of digital technologies in the workplace at an unprecedented pace. Previously seen as an optional business practice, telecommuting has emerged as a critical aspect of business transformation (Savić, 2020).

Before the COVID-19 outbreak, employers and employees had limited experience with widespread virtual work on such a scale. Organisations were accustomed to traditional office work, and individuals were inured to the clear separation between work and personal life. However, the pandemic has forced a rapid shift, compelling organisations to adapt their practices and individuals to embrace working from home (WFH) (Savić, 2020). While incremental changes and learning from others were previously favoured approaches, the current situation has necessitated a more radical and immediate transformation.

A striking example of the impact of the pandemic on physical office spaces is the case of the Olympic House in Lausanne, Switzerland. The International Olympic Committee (IOC) invested \$150 million over six years to construct the facility, but within nine months of its inauguration in June 2019, the offices stood empty (Fayard et al., 2021). This is a testament to how businesses were compelled to adapt and adjust their working practices in response to the global COVID-19 crisis. Working from home suddenly became a requirement, leading to a re-evaluation of the significance of physical office spaces.

The COVID-19 pandemic has shed light on pre-existing challenges and accelerated the need for digital transformation and virtual work practices. Organisations previously hesitant to embrace change have been forced to adapt quickly. The significance of physical office spaces has been redefined, and organisations are now tasked with finding the right balance between face-to-face interactions and virtual work. The current circumstances allow organisations to embrace new working methods and leverage digital technologies for long-term success. The outbreak of the COVID-19 pandemic brought about significant challenges for businesses, including the risk of losing customers and employees. This disruption was distressing and painful and occurred amid widespread fear and uncertainty caused by the virus. In this context, working from home (WFH) emerged as a potential solution to alleviate some of the difficulties businesses face (Savić, 2020).

Moreover, recent research highlights the impact of quarantine measures during the pandemic on individuals' sense of relatedness, which in turn affects their overall life satisfaction (Šakan, Žuljević, & Rokvić, 2020). A quantitative investigation by Šakan et

al. (2020) revealed a relationship between relatedness and life satisfaction. Although the study found that relatedness satisfaction had a somewhat lesser impact than the other two factors (autonomy and competence), it was still a significant mediator of life satisfaction during the pandemic.

These findings underscore the importance of fostering a sense of relatedness or meaningful social connections, even in a virtual work environment. While autonomy and competence are crucial aspects of job satisfaction, the sense of relatedness plays a significant role in overall life satisfaction during challenging times like the COVID-19 pandemic. Organisations should strive to create opportunities for virtual social interactions, team-building activities, and communication channels that foster a sense of belonging and connectedness among employees, as these factors can positively influence their well-being and overall satisfaction with work and life.

- **Social Relations**

According to Morrison-Smith and Ruiz (2020), fostering social connections and non-work-related relationships from the beginning is crucial. While these casual conversations often occur in face-to-face interactions, video-calling solutions allow for observing body language and facial expressions, which can be especially helpful in building fragile relationships. Employees can form bonds with people outside of their families and engage in social interactions in the workplace. Therefore, transitioning to a virtual office may not fully satisfy their social needs. Fayard et al. (2021) highlighted that in September 2020, Jamie Dimon, CEO of JPMorgan Chase, noted that after six months of working virtually, junior employees were missing out on the benefits of being physically present in an office setting, particularly in terms of knowledge transfer and face-to-face interaction with mentors.

Furthermore, the ability to quickly seek colleague assistance is an advantage for certain employees in an office environment. However, office employees in shared workspaces often face the challenge of getting distracted by the surrounding environment while working on tasks that require focus. Surprisingly, the impact of different office setups and workspaces on cognitive performance has received limited attention in field investigations (Jahncke & Hallman, 2020). On the other hand, Allen, Merlo, Lawrence, Slutsky and Gray (2021) argued that individuals who share a workspace with others

may struggle to establish boundaries that cater to their needs, leading to increased interruptions from non-work-related matters and noise. Setting boundaries is relatively more accessible for individuals living alone than those who share a living space (Allen et al., 2021).

Taking precautions against workplace distractions is necessary to avoid negatively affecting productivity and efficiency. However, according to Experteer (2018), the absence of daily interactions that involve visual cues, body language, and face-to-face communication can result in less team cohesion, trust, camaraderie, and satisfaction. Fayard et al. (2021) researched London and interviewed a young IT employee who described his virtual onboarding experience mid-2020 at a large financial services company as peculiar. Due to the company's headquarters' closure, he could not personally visit and meet any of his team members. Although he appreciated the company's efforts to provide the best experience, he admitted feeling unfamiliar with the system and the company's culture.

Moreover, in scenarios where organisational transformations are perceived by employees as tumultuous or inadequately outlined, there is a proclivity for them to centre their attention on personal requirements, often leading to a reluctance to articulate their dissatisfactions or appraisals (Allan, 2018). This tendency might result in a segment of employees opting for conformity, embracing fresh policies and ideologies rather than overtly championing the viewpoints and emotions shared by colleagues and supervisors (Walker, Daniels, Prowse & Stride, 2017). This underscores the intricate interplay of individual responses within the context of organisational shifts.

3.2 CHAPTER SUMMARY

The significant surge in virtual work prompted by the COVID-19 pandemic has undoubtedly expanded the organisational capacity for virtual work. It is expected to lead to a continued increase in employees working virtually in the long run, possibly even permanently. However, despite the evident advantages of virtual work for both employees and organisations, it is not without its challenges. The transition from traditional work to a virtual environment has proven to be complex despite the long-standing discussions and considerations about automation and virtual work concepts.

This literature review provided valuable insights into the subject matter. It highlighted the importance of effectively managing the transition to virtual work to ensure organisations' success and employees' adaptability in a virtual setting. Various definitions of traditional work environments have been examined throughout the review, but Sarasu's (2021) definition stands out as a foundational framework for this paper. It incorporates relevant characteristics and features from multiple definitions proposed by other scholars, thus setting the groundwork for further exploration in this study.

The shift towards virtual work necessitates a comprehensive understanding of its implications and challenges. The literature review has shed light on the complexities involved and emphasises the need for careful consideration and strategic planning to navigate the transition successfully. By addressing the challenges head-on and leveraging the benefits of virtual work, organisations can harness their potential to create a productive and efficient virtual work environment that meets the needs of both the organisation and its employees.

CHAPTER 4

VIRTUAL OFFICE WORK

4.1 INTRODUCTION

The COVID-19 crisis has underscored the increasing significance of digital tools and internet communication in our daily lives. While virtual work has been a growing trend, the pandemic has acted as a catalyst, propelling organisations, and employees towards embracing full-time virtual work at an unprecedented pace. The emergence of virtual work as a response to the COVID-19 outbreak has presented new opportunities for reimagining how organisations operate and are structured, offering enhanced flexibility and the potential for higher-quality work.

This chapter delves into virtual work, providing a discussion on theoretical frameworks underpinning the study, a comprehensive definition and exploring the multifaceted challenges and benefits of transitioning to a virtual workforce. It highlights virtual work's evolving boundaries and dynamics, emphasising the importance of effectively managing these aspects to ensure optimal efficiency and productivity. Additionally, the chapter addresses the crucial factors of reskilling and upskilling employees in the virtual work environment, recognising the need for continuous learning and adaptation to thrive in this digital landscape.

Furthermore, managing a virtual workforce takes centre stage, as it requires unique strategies and approaches to foster effective communication, collaboration, and employee engagement. The chapter delves into the intricacies of managing a virtual team, providing insights into best practices and tools for ensuring the success of virtual work arrangements.

In summary, the COVID-19 pandemic has accelerated the adoption of virtual work, prompting organisations to reimagine their operations and embrace virtual work as a viable and sustainable option. In this chapter, the focus shifts to the second objective of the literature, delving into the conceptualisation of the transition towards a virtual workforce. Additionally, attention is directed to the intricacies of challenges and issues

intertwined with this transformative journey. By exploring these dimensions, the study aims to enrich our understanding of the multifaceted process of transitioning to a virtual work environment.

4.2 VIRTUAL WORK ENVIRONMENT

This study examines the transition from traditional office settings to virtual. Work environment within SACAA, guided by three pivotal theoretical frameworks: the Technology Acceptance Model (TAM), Boundary Theory, and the Job Demand-Resource Model. These frameworks not only provide a foundation for understanding the multifaceted aspects of virtual work, but also frame the study within the broader academic discourse.

Technology Acceptance Model (TAM) developed by Davis. (1989). Is indispensable for understanding and predicting users' acceptance of technology, which is crucial for the successful and sustained use of virtual work tools. In the context of SACAA transition from traditional office settings to virtual work environment. TAM provides a robust foundation for identifying factors that influence employees' acceptance and use of virtual tools. Perceived usefulness and perceived ease of use are primary determinants in this model, as highlighted by Venkatesh and Davis (2000). By applying TAM, SACAA can better facilitate smoother transitions and enhance the adaptation of virtual work tools amongst its employees, ultimately leading to more efficient and effective virtual work practices (King & He, 2006; Al-Marouf and Salloum, 2001). Recent studies emphasise the evolving relevance of TAM in the context of virtual work and digital transformation, further validating its application in contemporary organisational settings (Marangunic & Granic, 2015; Scherer, Siddiq & Tondeur, 2019).

Boundary Theory offers valuable insights into the challenges of managing the boundaries between personal life and work, particularly relevant in the aviation industry where the work schedules can be irregular and demanding. For SACAA employees, the shift to virtual work necessitates the re-evaluation of how these boundaries are managed. Recent research underscores the importance of strategies employees used to create and maintain boundaries, which significantly impacted their work life balance and overall job satisfaction (Allen, Cho & Meier, 2014; Kossek et al.,2020).

Understanding these dynamics can help SACAA develop policies and support systems that promote well-being and productivity in a virtual setting (Nippert-Eng, 1996; Methot & LePine, 2016). The effective management of work- life boundaries is crucial for maintaining employees engagement and reducing stress, as highlighted by recent studies on virtual work environment (Park, Fritz & Jex, 2020).

Job Demands Resources, (JD-R) Model provides a comprehensive framework for examining how different work environment impact employees stress levels, engagements, and overall job satisfaction. Given the high physical and psychological demands of the aviation industry, this model is particularly pertinent for SACAA's transition to virtual work. Recent studies reaffirm that job demands can lead to burnout while job resources can enhance engagement and well-being. (Bakker & Demerouti, 2017; Demerouti et al., 2021). By applying the JD-R model, SCAA can explore how virtual office environments differently influence employees resources and demands thereby identifying strategies to balance these elements to maintain employee well-being and productivity (Schaufeli & Taris, 2014; Van den Broeck et al., 2018). This approach is crucial for developing targeted interventions that mitigate stress and enhance employee engagement in virtual work context.

4.2.1 Defining Virtual Work

The concept of virtual work has undergone evolution, embracing diverse definitions and terminologies. In 1973, Jack Nilles, a rocket scientist, introduced the term telecommuting. Initially, it aimed at mitigating traffic congestion and air pollution but later broadened to encompass all forms of virtual work, giving rise to the term teleworking. Consequently, virtual work has transitioned from a mere commuting solution to boundaryless work arrangements in virtual spaces.

Recent research indicates that virtual work is gaining popularity worldwide, with a projected increase in virtual workers (Gómez et al., 2020; Raiien et al., 2020). Virtual work is a practice that encourages professionals to work outside of the traditional office setting, wherever they can be productive and achieve a desirable work-life balance. Virtual work is based on the idea that work does not need to be performed in a specific location (Prasad et al., 2020). Employees have reasonable control over their daily

schedules, allowing for integrating their professional and personal lives to maximise their potential and satisfaction (Prasad et al., 2020).

According to Shivkumar (2024) in recent years, technological advancements and virtual platforms have fuelled the ascent of virtual work. Virtual work now denotes the capacity to work virtually, encompassing locations such as home (Shamsub, 2024). It epitomises the fusion of technology and work, empowering employees to operate in virtual environments. This concept has been featured in studies and research articles as a descriptor for this contemporary mode of working.

Research indicates a surging popularity in virtual work, with expectations of further growth in virtual employee numbers (Shamsub, 2024). Roslan, and Ahmad, (2023) highlighted that virtual work is often associated with terms like teleworking and telecommuting, highlighting the utilisation of technology for workplace communication. It necessitates self-discipline and relies on personal Information Technology (IT) and communication resources.

Aligned with virtual work is the concept of agile working, emphasising an organisation's capacity to adapt to shifting market demands and adjust work practices accordingly (Shamsub, 2024). Virtual work champions the notion that work need not be tethered to a specific location, enabling professionals to operate where productivity flourishes and a healthy work-life balance can be maintained. It grants employees flexibility in scheduling their days, fully facilitating the integration of personal and professional lives possible. Virtual work encompasses working virtually, leveraging technology, and embracing flexible work arrangements (Roslan & Ahmad, 2023).

4.2.2 Advantages Of Virtual Work Environment

- **Involvement and Productivity**

Research suggests that virtual work has the potential to enhance employee involvement and productivity, leading to reduced turnover rates and increased dedication. Similarly, online work can offer benefits such as decreased travel time and improved efficiency, adaptability, career growth, and work-life balance (Savić, 2020). Organisations are keen on boosting productivity while seeking ways to cut costs associated with office rent, utilities, insurance, supplies, maintenance, and infrastructure. However, there are costs

involved in transitioning to new work practices and providing training, as well as potential challenges related to employee commitment and alignment with organisational culture and values (Savić, 2020).

Moreover, virtual employees enjoy more flexibility and time to pursue personal and professional interests that might have been challenging in a traditional office setting due to time constraints and limited freedom. Additionally, virtual work has been linked to reduced stress, better health and wellness outcomes, and increased productivity compared to office-based work (Prasad et al., 2020). It has been established that virtual work can mutually benefit organisations and employees when adequate resources and monitoring measures are in place. Engaged employees demonstrate higher productivity and lower absenteeism rates (Hickman & Robison, 2020).

- **Time Management and Travel**

According to Prasad et al. (2020), Molino et al. (2020), and Raiien et al. (2020), there are benefits to virtual work, such as saving time travelling to and from the workplace. Authors such as Purwanto et al. (2020) asserted that work-from-home (WFH) might provide employees with greater flexibility in their work schedules and enable them to save money on commuting to and from work. According to Schalow (2020), virtual work benefits both the organisation and employees. The benefits to employees include less travel (57per cent), more freedom and flexibility (57per cent), a better working environment (50per cent), fewer distractions (43per cent), the freedom to wear comfortable clothes (14per cent), freedom from office politics (7per cent), and ease of finishing household chores (7per cent), were found to be the most valued benefits of virtual working (Schalow, 2020). The most obvious benefit and incentive for adopting virtual work has been flexibility. When researchers highlighted flexibility as the desired outcome of virtual work, employees viewed it as giving them a sense of empowerment in picking their work hours and structure (Ahlsröd & Fridén, 2021).

The commuting component of virtual work has been described as offering employees flexibility by minimising commute time to work. Working from home is thus believed to be beneficial in terms of decreased expenditures connected with less transportation, food, and clothing, referred to as a "virtual raise" for employees (Ahlsröd & Fridén, 2021). These authors believe that enhanced flexibility and reduced commuting extend

the chance for organisations to recruit new talent that would not have been available if home-based employment was not expected. As a result, employees in non-urban areas are more likely to apply for employment far from their homes (Ahlsröd & Fridén, 2021). Adopting a virtual workforce model has simplified hiring and increased access to talent for many organisations (Inavero, 2018).

- **Access to Needed Skills**

Flood (2019) highlighted the increasing trend of organisations expanding their talent pool by seeking skills beyond their local markets, resulting in hiring team members from different states and countries. This globalisation of talent acquisition is facilitated by virtual work, which allows organisations to overcome geographical barriers and leverage employees regardless of their physical location or time availability. Researchers such as Caligiuri et al. (2020), Contreras et al. (2020), and Neufeind et al. (2018) have emphasised the significance of virtual work in enabling organisations to navigate external challenges and access a diverse talent pool.

While virtual work offers numerous advantages, it is essential to acknowledge potential downsides. Charalampous, Grant, Tramontano, and Michailidis (2019) and Molino et al. (2020) have highlighted that working virtually can negatively impact employee well-being and pose challenges such as communication overload, task overload, workplace pressure, and decreased job effectiveness and performance (Grant et al., 2019). The experience of isolation and a lack of connection with colleagues familiar with virtual work setups can have adverse effects. Moreover, virtual work often requires employees to possess new and different skills and adopt a specific mindset tailored to the virtual work environment. Failing to address these factors appropriately can lead to adverse outcomes associated with virtual work, as noted by Charalampous et al. (2019), Raiien et al. (2020), and Rysavy and Michalak (2020).

Organisations must carefully consider virtual work's potential benefits and challenges, implement strategies to support employee well-being, foster effective communication and collaboration, and provide necessary training and resources for virtual work success. By proactively addressing these considerations, organisations can maximise the advantages of virtual work while minimising potential drawbacks (Shamsub, 2024).

4.2.3 Disadvantages Of Virtual Work Environment

- **Working from Home (WFH) and Connectivity**

Hickman and Robison (2020) have identified several disadvantages of virtual working, including feelings of isolation, longer work hours, lack of support, and limited opportunities for advancement. These challenges can impact employee well-being and overall job satisfaction. Additionally, Purwanto et al. (2020) highlight that virtual employees are responsible for their own internet and electricity costs, which can pose financial burdens and potential inequities within the workforce. While virtual work may save employees money on commuting expenses, organisations must address the possible challenges arising from individual responsibility for utility costs.

Workplace isolation is a significant concern in virtual work environments, as noted by Mohite and Kulkarni (2019). Employee engagement and participation become critical factors that managers must address to ensure organisational success. Establishing effective communication channels becomes crucial in overcoming isolation and fostering a sense of connection among virtual employees. Regular communication between managers and employees is essential to maintain alignment and ensure employees feel supported and engaged (Ahlsröd & Fridén, 2021).

Furthermore, organisations incur costs associated with transitioning to new work methods and providing training for virtual work practices. Additionally, employees' lack of commitment to and connection with the organisation's culture and values can pose challenges (Savić, 2020). To mitigate these issues, managers must actively address employee engagement, ensure clarity in communication, and foster a sense of organisational belonging. Empowering employees with discretion and autonomy becomes crucial when they are physically distanced from their managers, as highlighted by Ahlsröd and Fridén (2021).

Overall, virtual work presents both advantages and disadvantages. Organisations need to address the potential drawbacks such as isolation, longer work hours, and limited opportunities for advancement. By implementing effective communication strategies, providing necessary support and resources, and fostering a strong organisational culture, managers can help overcome these challenges and create a positive virtual work environment.

Eddleston and Mulki (2017) conducted a study that revealed a connection between concerns about working from home (WFH) and taking breaks among virtual employees. The absence of clear policies and procedures for time management in virtual work often leaves employees to exercise their discretion, which may not always align with organisational objectives. Kazekami (2020) and Grant et al. (2019) noted that virtual employees may experience overwork due to blurred work and personal life boundaries.

Virtual work environments lack face-to-face interaction in traditional offices, making it challenging to effectively convey emotions, tones, and nonverbal cues through virtual technologies (Marlow et al., 2017). The absence of visual cues can lead to miscommunication and frustration (Schalow, 2020). However, virtual technologies can still deliver relationship-oriented information, as highlighted by Marlow et al. (2017).

Managing performance, training, communication, and relationship development becomes more complex when employees are dispersed across different time zones and cultures (Hickman & Pendall, 2018). Leading a virtual workforce requires utilising resources, formal procedures, and innovative approaches to foster cohesive teams to achieve goals and objectives (Flood, 2019). Managers must adapt to this new working method and understand how to manage a virtual workforce effectively. Building mutual trust between employees and management is essential for the success of decentralised work arrangements. Addressing privacy and security concerns associated with virtual work is crucial, as the potential risks should not be overlooked (Savić, 2020).

Overall, managing virtual work requires attention to time management, maintaining healthy work-life boundaries, addressing communication challenges, and fostering trust and cohesion among virtual teams. Organisations must adapt their management approaches and provide the necessary resources and support to ensure the success of virtual work arrangements while mitigating potential risks and challenges.

- **Employee Engagement and Trust**

Previous research has highlighted the significance of engagement, which encompasses the physical, cognitive, and emotional energy employees invest in performing their duties (Maciel & Camargo, 2016). Maciel and Camargo (2016) found that when employees feel connected to the organisation, it generates energy at work, increasing productivity and job satisfaction. Virtual working environments can pose challenges to

engagement, such as feeling of isolation, isolation or disconnection from the organisation (Dittes et al., 2019). However, when employees feel connected to the organisation, even in a virtual setting, it can enhance their energy and commitment, leading to better performance and satisfaction of with their jobs. This underscores the need for organisation to foster strong connections and engagement strategies for virtual employees to sustain high levels of productivity and job satisfaction.

In the virtual workforce, trust plays a crucial role in team performance (Ford et al., 2017). Trust can be defined as the willingness of one party to be vulnerable to another based on the expectation that the trusted party will perform actions necessary to the trusting party, even in the absence of direct monitoring or control (Schoorman et al., 2007, as cited in Ford et al., 2017). Trust is considered a vital factor in enhancing the effectiveness and performance of virtual teams.

However, building trust in a virtual workforce can be challenging, as Eisenberg and Krishnan (2018) emphasise. Unlike face-to-face teams, geographically dispersed employees in virtual teams lack the opportunity for in-depth personal interactions that naturally foster trust. The absence of strong relationships among team members may lead to feelings of isolation and alienation, making it more difficult for individuals to trust those with limited knowledge (Eisenberg & Krishnan, 2018).

The challenges of trust development in virtual teams highlight the importance of proactive measures to foster trust and mitigate the potential negative impact of isolation. Strategies such as regular communication, virtual team-building activities, and creating opportunities for personal interaction can help bridge the trust gap among geographically dispersed team members. Organisations must recognise the unique dynamics of virtual work and invest in building trust to promote effective collaboration and maximise the performance of the virtual workforce.

The inability to participate in pre-meeting and post-meeting conversations in virtual work settings can harm the quality of interactions. Trust is widely recognised as a critical foundation for efficient and cohesive virtual teams, significantly influencing their overall success. As organisations increasingly adopt virtual work arrangements, it is imperative not to overlook the importance of employee engagement. Establishing a strong link

between social connections in the workplace, engagement, and performance is crucial (Schalow, 2020). Engaging and enhancing their productivity becomes easier when employees feel involved and informed about organisational happenings. Engaged employees exhibit higher output, deliver better quality work, and have lower absenteeism rates (Hickman & Robison, 2020). Studies have shown that engaged employees experience a 41 per cent reduction in absenteeism, 40 per cent fewer quality flaws, and a 21 per cent increase in profitability (Hickman & Robison, 2020). In virtual settings, maintaining strong social connections can be challenging but remains vital for employee engagement and overall performance. Engaged employees in virtual working environments are likely to demonstrate higher productivity, deliver better quality work, and have lower absenteeism rates. Thus, fostering these connections and engagements through virtual means is essential for enhancing productivity and organisational outcomes.

Organisations must provide managers with the necessary skills and support to manage virtual teams effectively. Managers should actively reaffirm the importance of virtual employees and demonstrate trust in their ability to handle their workload and flexitime (Pollitt, 2006). Virtual employees with more significant experience and education tend to be more successful in virtual work environments, as they require less guidance and direction. Trust emerges as a critical factor in enhancing the efficacy and performance of virtual teams (Ford et al., 2017). Rysavy and Michalak (2020) suggest that once trust is established, management and employees should collaborate to develop a mutually beneficial schedule. Trust is vital for maintaining collaboration, team effectiveness, and performance, as it influences the degree of feedback sharing, the willingness to ask for help, and open discussion of issues (Morrison-Smith & Ruiz, 2020).

However, building trust in virtual work environments can be challenging due to limited personal interactions and the absence of contextual cues, facial expressions, and tone of voice (Marlow et al., 2017). The lack of informal communication and personal interactions further complicates developing and maintaining solid relationships in the virtual workforce (Morrison-Smith & Ruiz, 2020). In addition to emphasising the importance of non-work-related interactions, Morrison-Smith, and Ruiz (2020) highlight the significance of promoting social exchanges early on to foster trust within the virtual workforce. While these informal discussions are typically more prevalent in face-to-face

settings, the availability of video-calling tools can help capture body language and facial expressions, which can be particularly valuable when relationships are still developing (Morrison-Smith & Ruiz, 2020).

Research findings indicate that trust is influenced by members of a workforce engaging in communication about their work and challenges, leading to higher levels of trust. However, in a virtual environment, two factors hinder understanding others' work: limited work visibility and a lack of contextual cues due to reduced personal interactions. These factors make it more challenging for virtual employees to gather comprehensive information about their colleagues' activities and time allocation compared to when they are working in a physical office (Wang et al., 2021). The lack of trust becomes a more significant challenge in virtual work environments with fewer social interactions and limited personal contact (Wang et al., 2021). Morrison-Smith and Ruiz (2020) emphasise that work visibility and individual interactions are essential to building trust.

While previous studies have identified trust as a significant concern for virtual employees, it is worth noting that a study by Schering and Camarero Lind (2021) contradicts this notion. Their empirical findings suggest trust is not a significant barrier in virtual work settings. It is essential to recognise that different studies may yield varied results, and further research is needed to gain a comprehensive understanding of the role of trust in virtual work environments.

- **Social Isolation at Work**

Social isolation can have adverse effects on the physical and emotional health of employees, including increased vascular resistance, blood pressure, metabolic syndrome, inflammatory disease, immune problems, impaired impulse control, and higher levels of depression (Cacioppo & Cacioppo, 2014). The sense of company involvement is closely tied to the well-being of employees, and disengaged employees or those who perceive a lack of concern for their health and well-being are less productive, less satisfied with their jobs, and more likely to leave the organisation (Call, Gerdes, & Robinson, 2009).

To mitigate the challenges of virtual work, Shewan (2017) suggests that virtual employees take advantage of work-provided technology or seek professional

development opportunities to stay connected with colleagues, supervisors, and other professionals in their field. The reduced media richness in virtual work, such as the absence of facial expressions and body language, can be compensated by using social media platforms like Twitter and LinkedIn to maintain connections and avoid feelings of isolation. Platforms like Slack can also help bridge the communication gap between virtual teams (Shewan, 2017). However, it is essential to recognise that virtual work may still bring about sociological and psychological concerns related to isolation, long working hours, and blurring boundaries between work and home (Savić, 2020).

By reducing face-to-face encounters, virtual work can also lead to less information exchange, trust, and collaboration among colleagues, reducing organisational commitment and decreasing teamwork efficiency (Ferrell & Kline, 2018; Ahlsröd & Fridén, 2021). However, organisations are often compelled to adopt virtual work due to external pressures and threats despite the potential loss of employee social interaction. O'Laughlin (2020) suggests using online video conferencing software with frequent one-on-one and team meetings that simulate the experience of in-person interactions. Clear communication and explicit supervisor guidelines are crucial in building trust when technology replaces face-to-face meetings.

Contrary to some concerns, researchers such as Caligiuri et al. (2020) and Ferrell and Kline (2018) argue that virtual work can bring positive improvements in the social aspect of work, such as team composition, geographical boundaries, and equitable opportunities. Practical strategies for managing the social components of virtual work can result in positive outcomes rather than negative features. Virtual work has shown improvements in both social aspects and productivity for employees (Caligiuri et al., 2020; Ferrell & Kline, 2018). Removing the geographical constraints of traditional office locations can create a more inclusive working environment, allowing individuals who are more introverted to thrive by providing equal access to managers, opportunities for participation, and the ability to showcase their talents (Ahlsröd & Fridén, 2021).

There is a belief among researchers that virtual work is the future, and building trust among employees is seen as a valuable strategy to overcome obstacles and reduce perceptions of social isolation. Organisational procedures and mechanisms should be

in place to maintain openness and foster a thriving virtual work environment (Ferrell & Kline, 2018).

- **Challenges in Transforming to Virtual Work**

Organisations that transition to a virtual workforce face various challenges that make the shift from a traditional office to a virtual office complex. One of the critical challenges is the need to transform from a command-and-control and bureaucratic hierarchical culture to a more collaborative and flexible work environment. This transformation requires not only training but also the commitment of employees to adapt to the new virtual work setup (Flood & Klausner, 2018).

While there is existing literature on virtual team interactions and characteristics, theoretical gaps exist in understanding how virtual team members experience the transition to full-time virtual work and how they respond to such unprecedented circumstances. As new communication technologies and flexible work environments expand the possibilities for new ways of working, research is constantly needed to provide fresh perspectives on the challenges and issues associated with transitioning to a virtual workforce (Kaif, Alam & Das, 2024).

Thakur (2024) Flood & Klausner (2018) and Kaif et al (2024). highlight several crucial considerations for ensuring a smooth transition to a virtual workforce, while also addressing the challenges that may arise:

- **Communication and Collaboration:** Establishing effective channels of communication and cooperation in a virtual environment is paramount. Organisations must provide tools and platforms for virtual teamwork, such as video conferencing and project management software. Clear communication guidelines and expectations are essential (Thakur, 2024).
- **Technological Infrastructure:** It's imperative for organisations to ensure their virtual workforce has access to reliable and secure technological infrastructure. This includes robust internet connectivity, appropriate hardware and software, and cybersecurity measures to safeguard sensitive information (Kaif et al., 2024).

- **Training and Skill Development:** Employees need the necessary skills to thrive in a virtual work environment. Training programs should focus on digital literacy, virtual collaboration, time management, and self-motivation. Continuous skill development initiatives can help employees adapt to evolving virtual work practices (Flood & Klausner, 2018).
- **Employee Engagement and Well-being:** Maintaining employee engagement and well-being is crucial in a virtual workforce (Flood & Klausner, 2018). Organisations should promote social connections and foster a sense of belonging through virtual team-building activities and regular check-ins. Addressing issues of social isolation and work-life balance is essential for supporting the overall well-being of virtual employees (Flood & Klausner, 2018).
- **Leadership and Management Practices:** Leaders and managers play a critical role in facilitating the transition to a virtual workforce. They should provide clear guidance, support, and regular feedback to virtual team members. Effective leadership practices in a virtual setting involve trust-building, fostering open communication, and setting clear goals and expectations (Thakur, 2024).

By addressing these aspects and overcoming associated challenges, organisations can effectively navigate the transition to a virtual workforce. Continued exploration and research into the conceptualisation of this transformation and the issues that arise can inform strategies for successful implementation and ongoing improvements in virtual work practices.

- **Benefits of Transitioning to Virtual Workforce**

Jobs that require significant manual labour or are highly routine have been automated and are now being performed virtually (Hamouche, 2021). According to APEC (2021), a survey of 60 CEOs from global industry leaders and focused online groups revealed that 64% admitted that specialised administrative and clerical duties will be fully automated soon. This advanced transition leads to worker furloughs and layoffs (Baker, 2020).

One argument in favour of virtual teams is that they are not limited by geographical constraints, allowing for better alignment of personalities and competencies, resulting in social improvement and increased employee productivity (Caligiuri, De Cieri,

Minbaeva, Verbeke & Zimmermann 2020; Ferrell & Kline, 2018). However, there is an ongoing debate about whether the home office environment can provide the same level of security, which may explain why the expected rise of virtual work has not fully materialised (Caligiuri et al., 2020; Grubert, Henssler & Ziefle, 2018; Jenneck, Henssler & Ziefle 2018; Müller & Niessen, 2019). Some argue that the office is purpose-built by employers for work, while the home environment encompasses an individual's entire life.

Finding a suitable workspace at home can be challenging, and the office space may offer a more conducive environment, free from stress factors associated with one's personal life (Jenneck et al., 2018). Nevertheless, counterarguments highlight that specific office spaces can be excessively noisy, making the home environment preferable. Additionally, removing geographical constraints from traditional office spaces is believed to create better conditions for employees who may be more introverted, as virtual work allows equal access to managers, opportunities for contribution, and the ability to showcase their talents, fostering a more inclusive social environment within organisations (Caligiuri et al., 2020).

In a broader perspective, the shift towards virtual work encapsulates a realm of prospects and hurdles. Continual research remains imperative to delve deeper into the intricacies and nuances of this dynamic work paradigm, unravelling its repercussions and uncovering optimal strategies. Noteworthy are studies that underscore the physiological advantages linked to virtual work, notably including the reduction in blood pressure (Grant, Wallace & Spurgeon, 2013).

Nevertheless, the benefits of virtual work can sometimes be overshadowed by the intricate challenge of disengaging from work on a psychological level (Palm, Bergman & Rosengren, 2020). Establishing psychological detachment is pivotal, requiring a clear distinction between physical absence and psychological disconnection from work demands. The perpetual accessibility and constant tethering to work obligations intensify the difficulty of achieving mental disengagement (Sonnetag, 2018). Persistently feeling bound by work commitments, both mentally and digitally, can engender heightened stress levels and give rise to enduring adverse effects on overall well-being (Prasad et al., 2020).

The sensation of never truly experiencing freedom from work's grasp can cast a long shadow, making navigating imperative. It is essential to note that there is no one-size-fits-all solution. Employees have different individual characteristics; some are better suited to virtual work than others and require organisational support to thrive. Specific individuals may possess agile characteristics and prefer having more responsibility, while others may experience a sense of ambiguity. Employees who favour a managerial presence do not favour working virtually (Caligiuri et al., 2020).

Despite all the benefits linked to virtual working, other studies have shown that virtual work can lead to poor well-being, communication overload, work overload, and workplace pressure (Charalampous, Grant, Tramontano, & Michailidis, 2019; Molino et al., 2020). Engaging in exchanging emails outside of regular working hours has been associated with increased stress levels and the erosion of clear boundaries between personal and professional spheres. These factors, in turn, can impede job effectiveness and overall performance (Grant, Kinman & Trougakos, 2019). As individuals intensify their work activity, virtual work may become unfavourable in some cases (Charalampous et al., 2019), adding the feeling of isolation and disconnection from co-workers, as well as the need for new skills and mindset to succeed as a virtual worker (Raiien et al., 2020; Rysavy & Michalak, 2020).

Many scholars argue that it is the organisation's responsibility to implement communication practices and provide necessary support to guide employees in virtual spaces. When done correctly, this support can reduce the feeling of ambiguity and lead to positive outcomes through increased autonomy (Caligiuri et al., 2020). Support becomes crucial in ambiguous and novel contexts, such as the COVID-19 pandemic, as these situations create an increased need for community and affiliation (WHO, 2021).

▪ **Boundaries in Virtual Workforce**

The increased use of virtual tools in virtual working environments has sparked interest in understanding how boundaries between work and non-work are established and maintained (Allen, Merlo, Lawrence, Slutsky & Gray, 2021). The boundary management framework refers to how individuals organise their professional work and personal life domains by creating, maintaining, or changing boundaries. Allen et al. (2021) described the creation of boundaries through segmentation or integration based on personal

preferences, actual behaviour, and environmental factors. Individuals who prefer integration are comfortable with looser boundaries between work and non-work, while those who prefer segmentation aim to separate their work and personal lives.

In a traditional office configuration, clear physical distinctions segregate work and home life domains. This deliberate partitioning effectively curtails the spillover between employees' professional obligations and familial commitments. However, the emergence of virtual work, particularly from one's residence, disrupts these established boundaries, giving rise to potential intricacies. Noteworthy is the inclination of certain employees to prioritise familial responsibilities during regular work hours, inadvertently exerting an impact on their overall operational effectiveness (Graves & Karabayeva, 2020).

Despite the hurdles, many individuals recognise the advantages of a home-based workspace. Nevertheless, this coexistence inadvertently fosters the prolongation of work hours. This trend is further exacerbated by organisational expectations of constant connectivity, availability beyond official hours, and the challenges posed by global time disparities, collectively impinging on personal leisure time (Barber, Santuzzi & Grawitch, 2019). Employees who prefer segmentation may address personal matters during breaks or leisure time or set specific working hours during the day. On the other hand, those who favour integration are more comfortable taking calls during leisure time or working evenings and weekends (Allen et al., 2021). Lott (2020) argues that in flexible work environments, the boundaries between work and home become blurred, making it incredibly challenging for individuals seeking work-life balance. Therefore, Allen et al. (2021) highlighted the importance of aligning a person's preferences with the work environment.

Shockley, Douek, Smith, and Rudolph (2021) underscore the importance of designating a dedicated home office space equipped with requisite workplace supplies for virtual workers. This deliberate setup fosters the establishment of tangible physical demarcations and expedites the distinction between the spheres of professional responsibilities and personal life. A palpable sense of being at work is invoked by creating such a defined workspace to nurture a productive psychological environment. This approach, in turn, serves as a cornerstone in fostering a harmonious equilibrium

between work commitments and personal well-being. Furthermore, according to Allen et al. (2021), the desirable state is when boundary management preferences align with the environment. However, individuals who prefer segmentation may experience weakened boundaries and misalignment of preferences and the environment when working from home.

Insufficient psychological detachment from work in the evening has been linked to poor sleep quality and morning fatigue (Braukmann, Schmitt, Uranová, & Ohly, 2018). Virtual work can also increase feelings of loneliness and social isolation. Prasad et al. (2020) explained that social exchange among workers is essential to combat isolation and maintain performance. Additionally, organisations face the challenge of motivating their workforce, especially as they grapple with rising health and safety concerns and the associated costs (Aifuwa, Musa & Aifuwa, 2020).

While numerous researchers see virtual work as the future (Caligiuri, De Cieri, Minbaeva, Verbeke & Zimmermann, 2020; Ferrell & Kline, 2018; Mellahi & Collings, 2010), a proposed solution to address both sides of the debate is the implementation of a hybrid model. This approach involves employees working from home on certain days of the week and in the office on others, allowing them to benefit from both working methods (Contreras et al., 2020).

- **Efficiency of the Virtual Workforce**

The advancement of task automation has enabled many workers to transition to virtual work, a trend further accelerated by the pandemic (Baker, 2020). Before the outbreak, only a few organisations utilised virtual workstations, mainly due to associated costs. However, many organisations have embraced virtual work environments in response to the demand for virtual work (Hite & McDonald, 2020). This shift brings about various challenges for workers as their jobs change due to automation and the adoption of virtual work.

Balancing work and life demands has always been a challenge, as individuals often struggle to find enough time to fulfil all their responsibilities (Pauleen, Campbell, Harmer & Intezari, 2015). Nevertheless, the boundaries between work and personal life have become increasingly blurred in recent months as technology enables flexibility in when

and where work is performed (Wepfer, Allen, Brauchli, Jenny & Bauer, 2018). Numerous studies have delved into the intricate interplay between work and personal life, investigating various themes, including work-life balance, family-to-work conflict, work-to-family conflict, work spillover, and work-to-family interference (Palm, Cunningham & Wager, 2020). Some studies have suggested that technology has facilitated the intrusion of family-related matters into work-life, leading to concepts like work-life integration or boundarylessness (Palm et al., 2020).

Several research topics have focused on telework in organisations, including the efficiency of virtual teams (Bhat, Pande, & Ahuja, 2017), telework features (Raghuram, Hill, Gibbs, & Maruping, 2019), virtual leadership (Hoch & Kozlowski, 2014), aspects of trust and effective communication (Rysavy & Michalak, 2020), as well as mental stress and anxiety (Gómez et al., 2020). Studies have also examined the feasibility of virtual work about age, gender, and income inequality in Canada (Gallacher & Hossain, 2020). Furthermore, research has investigated the impact of telework on job-related factors, organisational policies, job satisfaction, and employee well-being in the IT sector (Prasad et al., 2020). Furthermore, the utilisation of virtual work has been investigated under normal circumstances in various countries, including Lithuania (Raiien, Bučiūnienė & Miežienė, 2020), Italy (Molino et al., 2020), and France (Aguilera, Lethiais, Rallet & Proulhac, 2016).

▪ **Reskilling of a Virtual Workforce**

The changing work landscape and the need to adapt to new tasks and environments require new skills (APEC, 2021). According to APEC (2021), participants believe that future skills will encompass complex problem-solving, creative thinking, and a commitment to continuous learning. Baker (2020) found that an increased percentage of workers (48per cent) are expected to work virtually in the post-COVID era compared to before the pandemic (30per cent), with 16per cent of human resource managers utilising technology to manage their workforce.

The convolutions instigated by the pandemic have intricately woven hurdles into the path of prognosticating workforce essentials (Hamouche, 2021). The foundations of predicting forthcoming workforce prerequisites have been destabilised as the obsolescence of skills, the spectre of layoffs, and the oscillation of presenteeism and

absenteeism rates reshape the landscape. Concurrently, the quest for individuals endowed with the requisite proficiencies has transformed, thereby casting ramifications on the tapestry of strategic human resource planning (Hamouche, 2021). Regrettably, propelled by the emergence of novel virus mutations and the unwavering surges of the pandemic, the trajectory of virtual work seems poised to endure well into the foreseeable future.

Navigating the intricacies of reskilling workers can exert reverberations on the efficacy of the workforce. Acclimatising to novel methodologies and surroundings can be arduous, potentially causing a drain on precious working hours as individuals familiarise themselves with these novelties and seek to find their footing (Stonehouse & Konina, 2019). Furthermore, Carnevale and Hatak (2021) postulate that the assimilation into virtual landscapes or introduction fresh workplace protocols and processes could potentially erode the harmonious alignment between individuals and their work environment, known as the person-to-environment fit.

Reskilling workers has become a critical challenge for organisations. As new jobs replace old ones and skills become outdated, the need for training and retraining is evident. Given the technological nature of today's jobs, there is an increasing demand for technical, innovative, creative, and critical thinking skills (Caroyannis, Christodoulou, Christodoulou, Chatzichristefis & Zinones, 2021). Additionally, the training method has shifted to virtual delivery due to restrictions on in-person contact. However, the effectiveness of virtual training methods is debatable as they introduce new challenges, such as cheating.

Acclimatising employees to new work environments require significant time and resources, highlighting the importance of allowing for a transition period to ensure the organisation and employees can comfortably cope with the changes. Embracing the value of organisational adaptation during challenging periods underscores the substantial time and resource investment required to familiarise workers with their work environments (Feller, Talbot, Kristof, Brown, Astrove & Billsberry, 2018). Consequently, it is advisable to refrain from making swift changes to work environments in the immediate term. This approach safeguards productivity and sustains the harmonious rhythm of operations.

- **Management**

Managers should avoid micromanaging virtual employees (Neeley, 2020). The lack of physical presence and trust and employees' inexperience with virtual work may lead to a desire for constant monitoring. However, continuous monitoring is not the most effective strategy. Instead, managers should focus on whether objectives are being met and provide employees with appropriate autonomy based on their experience and competence. Granting autonomy is likely to improve performance (Kanat-Maymom & Reizer, 2017). Effective management involves allowing employees to determine their approach to projects, applying them in decision-making and job assignments, and encouraging them to solve problems rather than imposing solutions.

Many organisations today have a "culture of overwork" (Ely & Padavic, 2020), and virtual workers are particularly susceptible to overwork due to the blurred boundaries between work and home, constant connectivity, and time zone differences. Working long hours has significant drawbacks, including jeopardising family relationships, impeding recovery from work, inducing stress, and ultimately leading to burnout, decreased productivity, and turnover (Graves & Karabayeva, 2020). Long work hours also pose risks for managers who supervise virtual workers.

The intrusion of work into personal time deprives employees of the opportunity to recover from work demands, relax, and recharge outside of regular work hours (Barber et al., 2019). Failing to recuperate from work results in negative emotions, poor sleep, and reduced work engagement. Chronic failure to recover from work can lead to increased stress, exhaustion, performance issues, and burnout over time (Sonnetag, 2018). Therefore, managers must support work-life balance and ensure virtual employees have opportunities for recovery and well-being outside work hours.

Managers should also be mindful of the expectations of constant connectivity and extended availability in virtual work environments. While technological advancements enable flexibility and virtual work, they can also blur the boundaries between work and personal life. Managers should communicate clear expectations regarding after-hours availability, response times, and the need for work-life balance. Encouraging employees

to disconnect and recharge during non-working hours is essential for their well-being and overall performance.

Managers are crucial in addressing the time pressures and demands of using technology in virtual work environments. Managers must set realistic goals and deadlines considering the challenges of working with technology (Graves & Karabayeva, 2020). Unreasonable goals and tight deadlines can increase stress levels and hinder employee performance rather than improve it. By setting realistic expectations, managers can create a supportive work environment that promotes productivity and reduces burnout.

In addition to setting realistic goals and deadlines, managers should assist employees in prioritising projects and tasks. With the proliferation of virtual work and technology, employees may face an overwhelming workload and struggle to manage their time effectively. Managers can provide guidance and support in identifying priorities, breaking down complex tasks, and allocating resources appropriately. Regular communication and updates on shifting priorities and goals can help employees stay on track and adapt to changing circumstances. Managers can create a supportive and balanced virtual work environment by setting realistic goals, assisting with workload management, and addressing expectations of constant connectivity. This proactive approach fosters employee well-being, reduces stress, and enhances performance in the long run.

4.3 CHAPTER SUMMARY

The literature on virtual work environments highlights the importance of communication, trust formation, and understanding the characteristics of such environments. However, there are still theoretical gaps in understanding how employees experience the transition to virtual work and how they respond during unprecedented times. Therefore, further research is needed to bridge these gaps and provide a comprehensive understanding of the transition from traditional to virtual working environments.

As the scope for new ways of working expands with advancements in communication technologies and flexible work environments, it is crucial to address the challenges associated with virtual work. The research by Graves and Karabayeva (2020) emphasises that while virtual work offers numerous advantages, it also poses difficulties, such as technological issues, increased workloads, strained manager-employee relationships, reduced social connections, and blurred work-home boundaries. These challenges place additional demands on employees while limiting the availability of necessary resources for their success.

To ensure an efficient and practical transition to a virtual workforce, managers must be mindful of these challenges and take proactive measures to address them. This includes setting realistic goals and deadlines, assisting employees in prioritising tasks, maintaining open and transparent communication, and promoting work-life balance. Managers can create a supportive and productive virtual work culture by understanding and addressing virtual work environments' unique demands and dynamics.

The transition to virtual work requires careful consideration of its challenges and opportunities. Through further research and proactive management strategies, organisations can successfully navigate this transition and leverage the benefits of virtual work while mitigating its potential pitfalls. By doing so, they can create a thriving virtual work environment that fosters employee well-being, enhances performance, and ensures long-term success in the evolving world of work.

CHAPTER 5

RESEARCH METHODOLOGY

5.1 INTRODUCTION

This chapter offers a comprehensive overview of the chosen research methodology, delves into the specific techniques used for data analysis and interpretation, elucidates the rigorous strategies implemented to ensure the trustworthiness of findings, and concludes by examining the rigorous measures taken to uphold ethical considerations throughout the study.

5.1.1 Research Philosophy

A research philosophy encapsulates the researcher's perspective on the appropriate methods for studying a phenomenon, the type of data to be collected, and the processes for analysing and interpreting this data (Creswell & Creswell, 2022). Creswell and Creswell (2022) describe it as the researcher's 'worldview.' This philosophy is shaped by the researcher's beliefs, perceptions, and worldview (Mauthner, 2020), significantly influencing the study's execution (Žukauskas, Vveinhardt, Andriukaitienė, 2018). According to Creswell (2013), a research paradigm can be seen as a philosophical worldview or a broad ideological standpoint. Additionally, research paradigms encompass epistemologies and ontologies, as defined by Crotty (1998).

Research paradigms serve as guiding frameworks for researchers and assist in addressing fundamental questions related to ontology, epistemology, and methodology (Perera, 2018). Various research paradigms are employed in research, including positivism, interpretivism, post-positivism, critical theory, constructivism, and pragmatism. Each paradigm offers a distinct perspective on how knowledge is constructed and understood (Oyedijo et al., 2024).

5.1.2 Ontology and Epistemology

Ontology and epistemology form the core of a research paradigm (Mauthner, 2020). Ontology concerns the nature of reality and what exists in the world, shaping the researcher's stance on what can be known (Dunbar, Burgoon, Chen, Wang, Ge, Huang, & Nunamaker, 2023). Two primary ontological positions are objectivism and

constructivism. Objectivism asserts that reality is independent of human perceptions, whereas constructivism holds that reality is subjective and socially constructed (Creswell & Creswell, 2022). This study adopts a constructivist ontology, positing that reality is interpreted through individual experiences and interactions (Densin & Lincoln, 2018).

Epistemology relates to the nature and scope of knowledge and how it can be acquired and communicated (Densin & Lincoln, 2018). Interpretivism, often associated with constructivist ontology, emphasises understanding the meanings and experiences of individuals (Van der Walt, 2020). This approach assumes that reality and human behaviour are fluid and dynamic, shaped by social interactions (Du Plooy-Cilliers, Davis, & Bezuidenhout, R. 2019). The interpretivist–constructivist paradigm is thus suited for exploring subjective truths and gaining insights from personal experiences (Burns, M., Bally, J., Burles, M., Holtslander, L., & Peacock, S., 2022).

The current study employs a constructivist ontology and interpretivist epistemology to explore employees' and managers' perceptions of the transition from traditional to virtual work at SACAA. This approach facilitates a deep understanding of participants' subjective experiences, which cannot be fully captured through objective observation alone.

The study's aim to gain insight into the personal experiences and perceptions of SACAA employees regarding the transition to virtual work, the constructivist ontology and interpretivist epistemology align well with the chosen qualitative approach. Semi-structured interviews as a primary data collection method allow for in-depth exploration of participants' viewpoints, enabling you to uncover the nuanced and context-dependent nature of their experiences

5.2 FOCUS OF RESEARCH

This study delves into SACAA's transformative journey as it transitioned from a traditional workforce to a virtual one. It scrutinises employees' experiences during this transition, shedding light on the advantages and disadvantages of the virtual work landscape and how these aspects have influenced SACAA's workforce. The primary

objective is to provide a comprehensive understanding and profound insights into the perspectives and experiences of SACAA employees actively engaged in virtual work.

The study seeks to address the following critical questions:

- What were the effects of the pandemic on the workforce?
- What were the effects of the pandemic on management?
- How did the organisation transition from a traditional to a virtual work environment?
- How has the transition affected the performance and the operations of SACAA?

5.3 RESEARCH APPROACH

A research approach serves as a well-defined strategy that guides the study in systematically and efficiently conducting their study. It assists in addressing the research problem and answers the research questions (Bryman & Bell, 2015). Creswell (2015), as cited in Mohajan (2017), identifies three primary research approaches: quantitative, qualitative, and mixed methods. Regardless of the chosen approach, all research methodologies necessitate systematic, explicit, and disciplined inquiry to yield appropriate and reliable outcomes.

Qualitative research aims to explore and understand people's perceptions and experiences of a social phenomenon. It delves into how individuals interpret and make sense of their lived experiences, providing insights into the social reality of individuals (Mohajan, 2018). This approach involves gradually contrasting, comparing, cataloguing, and categorising the subject of study to make sense of the phenomenon being investigated (Creswell & Creswell, 2018).

This study's qualitative research was deemed the most suitable and natural approach. Qualitative methods, including interviews and observations, were employed to understand better the cases being examined. As defined by Johannessen et al. (2020), qualitative interviews involve purposeful and structured conversations to explore opinions, behaviours, and experiences. The study directly engaged with the participants to gather data and ensure a comprehensive perspective.

The collected data underwent thorough analysis involving categorisation and thematic organisation across all data sources (Creswell & Creswell, 2018). This methodological

approach was the most appropriate for this study, allowing for in-depth insights and a comprehensive understanding of the issues. By personally conducting the interviews in the natural setting of the participants, the study had direct control over the data collection process.

One advantage of qualitative interviews is that they allow interviewees to express themselves and reconstruct events, unlike structured questionnaires (Johannessen et al., 2020). The interviewer can ask follow-up questions and seek clarification when needed, facilitating a deeper exploration of the participants' perspectives.

Overall, the study recognised the value of a qualitative approach in capturing the richness and complexity of the research topic (Oyedijo et al., 2024). The study aimed to provide a comprehensive and nuanced understanding of the phenomenon under investigation by collecting data through interviews and personally engaging with the participants. The data was carefully analysed and organised into meaningful categories and themes that cut across all data sources, ensuring a thorough exploration of the research questions and objectives (Johannessen et al., 2020).

The qualitative research approach is designed to understand participants' lived experiences and gather rich, detailed data in the form of narratives or visual materials (Creswell & Creswell, 2022). It involves collecting and analysing non-numerical data to comprehend concepts, opinions, and experiences (Du Plooy-Cilliers et al., 2019). This approach is particularly effective for studying complex phenomena within their natural contexts (McGinley et al., 2021).

In this study, a qualitative approach was chosen to directly capture the experiences and perceptions of SACAA employees and managers regarding the transition to virtual work. The approach allowed for an in-depth exploration of the phenomenon, considering multiple perspectives and minimising the distance between the researcher and participants (Bryman et al., 2019). This methodology also involved the use of multiple data sources, such as interviews and observations, to provide a comprehensive understanding (Abdalla, Oliveira, Azevedo, & Gonzalez, 2018).

The researcher employed a qualitative approach despite its acknowledged limitations, such as non-generalisability to a broader population and the time-intensive nature of data collection (Clur, 2016). The rationale for selecting the qualitative approach

stemmed from the need to examine the transition process's effectiveness within SACAA. This approach facilitated a comprehensive exploration by actively engaging SACAA participants in detailed discussions through interviews (Oyedijo et al., 2024).

Qualitative research is valuable for investigating people's perceptions and interpretations of social phenomena. It focuses on understanding individuals' social reality by exploring how they make sense of their experiences. Through methods such as contrasting, comparing, replicating, cataloguing, and categorising, researchers gradually gain insights into the subject of study, as highlighted by Mohajan (2018) and Creswell and Creswell (2018).

In the context of this study, qualitative research was considered the most suitable approach due to its alignment with the research objectives. The study employed qualitative methods such as interviews to better understand the cases under investigation. As defined by Johannessen et al. (2020), qualitative interviews involve structured and purposeful conversations to explore the participants' opinions, behaviours, and experiences. The study played a pivotal role as the primary instrument in the research process, engaging directly with the participants to collect meaningful data.

Following data collection, the study conducted a meticulous analysis process, categorising and thematically organising the data from all sources. These procedures were deemed appropriate for this study, considering the aim of providing a comprehensive perspective and in-depth insights into the relevant issues (Oyedijo et al., 2024). Qualitative interviews allow the interviewer to control the situation, facilitating the exploration of participants' thoughts and providing opportunities for clarification or elaboration. This approach, as argued by Johannessen et al. (2020), allowed participants more freedom to express themselves and reconstruct events compared to structured questionnaires.

Based on the preceding discussion, the study concluded that the qualitative approach was the most suitable for this study. The researcher personally interviewed the participants in their natural settings, ensuring direct engagement and authentic data collection. The collected data was then thoroughly reviewed, analysed, and organised into categories or themes encompassing all data sources, enabling a comprehensive understanding of the research subject (Oyedijo et al., 2024).

In conclusion, the qualitative research approach delves into phenomena within their natural contexts, aiming to comprehend and interpret these phenomena through the lens of the meanings attributed to them by individuals (Saldana, 2016). This study made use of a case study.

5.4 RESEARCH DESIGN

According to Saunders et al. (2019), there are three main types of research designs: descriptive, explanatory, and exploratory. For this study, an exploratory case study approach was adopted. This approach was chosen because it allowed the study to comprehensively understand the subject matter and uncover extensive evidence of the obstacles faced in implementing virtual work within SACAA.

The study employs a qualitative, exploratory design using a case study strategy. An exploratory design is appropriate for investigating problems with limited prior research and is useful for gaining background information, understanding the problem, and generating new ideas (Asenahabi, 2019). It aims to explore the problem in depth, identify potential causes, and suggest solutions (Makri & Neely, 2021).

A qualitative case study meticulously examines a phenomenon within its real-world context. It involves collecting data about a particular individual, entity, or event. While multiple scenarios or occurrences can be the subjects of investigation, the central aim of a case study is to gain a comprehensive understanding of the unique aspects inherent to the case. The insights gleaned from such studies are subsequently applied to various contexts and settings. Qualitative case study methodologies often require in-depth interviews with each case over an extended period. These interviews delve into the specific intricacies of the case in more depth than what is typically explored in a phenomenological interview (Creswell, 2009).

This design was selected to examine the transition from traditional to virtual work at SACAA, an area with limited existing research. The qualitative approach facilitated detailed discussions with participants, providing insights into their experiences and perceptions (Oyedijo et al., 2024). This method allowed the researcher to engage deeply with participants and collect data that reflected their lived experiences, crucial for developing a theoretical framework for understanding the transition process.

According to McCombes (2019), methodology is anchored in the research paradigm, which influences all aspects of the research process. Creswell and Creswell (2022) describe the research philosophy as the researcher's worldview. Mauthner (2020) explains the components of a research philosophy, including ontology and epistemology.

A case study strategy is a qualitative research method that involves an in-depth, detailed examination of a single subject or a small number of subjects, as well as their contextual conditions. It is used to explore complex phenomena within their real-life contexts. Case studies can be exploratory, descriptive, or explanatory, and they often involve collecting and analysing multiple sources of data, including interviews, observations, documents, and reports (Yin, 2018). Case studies can incorporate various data collection methods, such as interviews, observations, and document analysis, providing a holistic view of the research problem (Creswell, 2014). The case study method was particularly suitable for this research as it provided an in-depth exploration of a real-life context, namely SACAA. By selecting participants from within the organisation, the experiences and perspectives of individuals directly involved in virtual work could be considered (Saunders et al. 2019). This allowed for a detailed examination of the challenges and issues associated with virtual work within SACAA.

Considering the nature of the research and the need for a holistic understanding of the phenomenon, a qualitative approach was deemed the most natural and appropriate. Qualitative methods, specifically interviews, were employed to gather data and gain insights into the cases under study. Interviews provided a valuable opportunity to explore participants' experiences, perceptions, and attitudes about virtual work, allowing for a deeper understanding of the research topic (Oyedijo, Kusi-Sarpong, Mubarik, Khan & Utulu, 2024).

This study aimed to capture rich and nuanced data by utilising an exploratory case study approach and qualitative methods such as interviews, enabling a thorough exploration of the research questions. The combination of qualitative research and a case study design facilitated a comprehensive examination of the obstacles and challenges faced in implementing virtual work within the SACAA context.

5.5 RESEARCH METHODOLOGY

A study's methodology is grounded in the researcher's research paradigm (ontology and epistemology), which shapes the approach and methods used for selecting, gathering, classifying, analysing, and interpreting information (McCombes, 2019). The methodology encompasses the research approach and design, as well as the methods for sample selection, data collection, and data analysis (Creswell & Creswell, 2022).

The research methodology serves as the compass guiding the entire research endeavour, encompassing the overarching strategy and addressing pivotal aspects such as the target population, sample selection, data collection methods, and establishing trustworthiness and dependability to ensure the credibility of the results.

This section delineates the methodology employed in this paper. Initially, the chosen research setting and design will be elucidated, followed by an in-depth exploration of the data collection methods and analysis. Subsequently, the methodology will be critically evaluated, and ethical considerations pertinent to the study will be deliberated on.

In this study, the research methodology encompasses critical aspects, including delineating the research paradigm, research setting, identification of the target population, selection of the study sample, and the comprehensive approach to data collection.

5.5.1 Research Setting

The section on setting and sample provides details about the research setting and the participants involved in the study. It describes the process of selecting and recruiting participants, highlighting any relevant criteria or considerations. Ethical considerations, such as informed consent and confidentiality, are also addressed in this section to ensure the protection of participants' rights.

The South African Civil Aviation Authority (SACAA) was selected as the case organisation for this study based on several compelling criteria. Firstly, SACAA exemplifies an organisation that swiftly transitioned to virtual work in response to the COVID-19 pandemic, taking proactive measures to curb the spread of infection (Kris information, 2021; WHO, 2020). In March 2020, most SACAA employees began

working virtually from home on a full-time basis, offering an excellent opportunity to study a case where virtual work was enforced and widely adopted within an organisation. This significant shift represented a drastic change for SACAA, considering its prior reliance on a traditional office setting and limited experience with virtual work arrangements.

Before the transition, SACAA operated in a traditional office environment with no pre-established structure for facilitating a virtual workforce. As a regulatory body, many of SACAA's services were traditionally conducted at the office, requiring stakeholders to submit various applications physically. The organisation's pivot to virtual work presented numerous challenges and required significant adjustments to accommodate the new reality of virtual operations.

The extensive nature of this transformation allowed the study to capture both the pre-transition conditions for virtual work and the subsequent actions and decisions taken by the organisation to adapt to this novel work environment. This provided a suitable context for investigating the practical mechanisms that drove the adoption and widespread implementation of virtual work practices within SACAA. Understanding these mechanisms can offer valuable insights for shaping future strategies and policies regarding the virtual work pandemic.

The fact that the employees had been working virtually for a considerable period when the study was conducted provided an opportunity to analyse the establishment of virtual work from its inception. This longitudinal perspective enables a comprehensive examination of the evolution and impact of virtual work practices over time.

This study was conducted at SACAA.. Several significant criteria guided the choice of SACAA as the research setting. Firstly, SACAA stood out as an organisation that adeptly and swiftly transitioned to virtual work in response to the COVID-19 pandemic, prioritising its employees' and customers' health and safety.

While SACAA had not initially planned for virtual work arrangements, the employees had access to resources for offsite work, which proved to be a positive factor during the transition. Although gradual automation of processes had become a global trend in pursuing a competitive advantage in the digital era, SACAA's workforce was not accustomed to extensive virtual work.

The organisation's previous work patterns revolved around a combination of on-site and off-site operations, making the transition to virtual work a significant adjustment for the employees. Despite lacking prior planning for virtual work, the availability of resources for offsite work was a beneficial starting point for the transition.

However, the sudden and extensive adoption of virtual work necessitated adjustments from employees and the organisation to ensure a smooth and effective shift. While external circumstances largely drove the change to virtual work, SACAA recognises that it cannot be entirely virtual due to the nature of its operations, which often involve essential physical interactions. As a result, the organisation has adopted a hybrid model, combining virtual work with occasional on-site presence. In this hybrid approach, employees report to the office when necessary or on specific set dates to handle tasks that are not conducive to virtual work.

The hybrid model balances leveraging the benefits of virtual work and acknowledging the practicalities of physical interactions. It allows SACAA to maintain productivity and employee well-being while catering to specific operational requirements that demand on-site presence. This flexibility has been crucial in ensuring the organisation's continued effectiveness and adaptability during these transformative times.

This significant shift presented a unique and compelling opportunity for the study to document the various facets of virtual work at SACAA before and after adapting to the new reality. The setting at SACAA is particularly intriguing as it allows for an in-depth exploration of the practical mechanisms that drove the expansion of virtual work beyond the pandemic. At the time of the study, employees had been working virtually for nearly a year, a transformation guided by government guidelines in response to COVID-19 pandemic. As the pandemic-related restrictions eased, the organisation adjusted its working arrangements to comply with the evolving COVID-19 guidelines the South African government set forth. This prolonged duration of virtual work afforded the study a valuable chance to examine the establishment and evolution of virtual work practices at SACAA over time, adding depth and richness to the study.

By documenting the actions and decisions undertaken by the organisation during the shift to virtual work, the study gained insights into the strategies and adaptability demonstrated by SACAA in response to the changing circumstances. Additionally, the study captured the practical implications of virtual work beyond the immediate pandemic

context, shedding light on how organisations navigate and sustain virtual work practices in the long run. The longitudinal perspective of the study allowed for a comprehensive understanding of the dynamics and challenges associated with virtual work adoption. It enabled the study to explore the employees' experiences and organisational responses as they adapt to virtual work over an extended period. Such a holistic approach enhanced the study's validity and could inform future decision-making and policy development regarding virtual work practices.

5.5.2 Ethical Considerations

Before commencing the research, the study diligently secured ethical clearance from UNISA's Department of Human Resources Management Research and Ethics Committee. Additionally, the university under investigation granted permission to conduct the study.

To mitigate any potential false expectations about the research outcomes, ample time was dedicated to discussing the participant Information Sheet with each participant before the interviews, ensuring they thoroughly understood the study's objectives, procedures, and potential outcomes. This transparent approach aimed to establish realistic expectations and promote informed consent, fostering an environment of trust and genuine participation.

Individual interview sessions were meticulously scheduled to ensure utmost privacy, aiming to eliminate any interruptions or distractions. The study's primary goal was to create a comfortable environment where participants could express themselves openly and honestly. It is important to note that, due to the nature of our sample population of professionals, no specific accommodations were required for individuals with intellectual impairments.

Obtaining written consent from participants before each interview was a seamless process without any notable issues. Participants readily expressed their willingness to sign the consent forms, demonstrating their understanding and agreement to participate in the interviews. This adherence to ethical protocols ensured that the rights and confidentiality of the participants were respected throughout the study.

Participants were provided with detailed information regarding using a recorder during the interviews. Assurances were given to ensure the confidentiality and privacy of their

information. All identifying information collected during the study was securely stored and kept confidential. After the completion of the study, any identifying information was appropriately destroyed to safeguard participant anonymity further.

Access to the study data was rigorously controlled and limited to the designated researcher. This stringent restriction ensured that only authorised personnel, specifically the study, could handle, analyse, and interpret the data. By maintaining exclusive access to the data, the highest level of data security and participant confidentiality was upheld throughout the entirety of the research process. This stringent control over data access further minimised the risk of unauthorised disclosure or misuse of participants' confidential information. The study, equipped with the necessary expertise and ethical responsibilities, diligently handled the data carefully and adhered to privacy protocols. Through this meticulous approach, the study demonstrated a strong commitment to safeguarding the integrity and privacy of participant data, fostering an environment of trust and confidentiality.

Professionalism was a fundamental aspect upheld throughout the study, and several key measures were implemented to ensure its maintenance. First and foremost, appointments were diligently scheduled and adhered to, demonstrating a commitment to respecting the time and availability of research participants. Punctuality was prioritised to create a sense of reliability and trust. The research team recognised the importance of honouring scheduled meetings, interviews, and data collection sessions, recognising the value of participants' time and the significance of their contributions.

The study's multifaceted responsibilities encompassed various critical tasks such as recording interview transcriptions, note-taking during research proceedings, and the intricate data analysis and interpretation process. In this study, a collaborative approach was adopted, involving the engagement of specialised professionals to fulfil these roles effectively.

They approached each interaction objectively, ensuring that personal biases or preconceived notions did not influence the data collection process. By maintaining objectivity, the integrity and validity of the study were preserved, allowing for unbiased analysis and interpretation of the gathered information. These steps, including scheduling appointments, being punctual, and upholding objectivity, were vital in cultivating an atmosphere of professionalism throughout the study. Such an

environment fostered the respect and preservation of the confidentiality of the information shared by research participants, reinforcing their trust and confidence in the research process.

5.5.3 Obtaining Permission from SACAA

The researcher diligently sought and obtained permission from the DCA at SACAA to conduct the study. The study took proactive steps by contacting the Human Resource Department at SACAA, seeking clarity and guidance on the formal procedure to obtain permission for the study. The study prepared a comprehensive memorandum outlining the study's topic, objectives, and aims, and this document was submitted to the DCA for review. The memorandum also included a recommendation from the Human Resources Department, supporting the research endeavour.

By following the proper channels and adhering to the organisation's protocols, the study ensured that all necessary approvals were obtained before proceeding with the study. This meticulous approach demonstrated the study's commitment to ethical practices and respectful engagement with SACAA as a research setting. This step was crucial in ensuring that the research was conducted ethically and was compliant, adhering to the organisation's protocols and guidelines.

Obtaining permission from the DCA of SACAA demonstrated compliance with the organisation's governance protocols. It also ensured that the study was conducted with the full cooperation and support of SACAA, which facilitated access to participants and relevant resources. By seeking permission from the appropriate authority, the study demonstrated a commitment to conducting the study responsibly and professionally. This step established a foundation of trust and legitimacy for the research, further enhancing the credibility and validity of the study's findings.

5.5.4 Population

A target population, as defined by Babbie and Mouton (2010), encompasses all individuals within a specific group who meet the predefined criteria set for a research investigation. On the other hand, the population, as described by Anozie (2017), represents the broader group to which the study intends to extrapolate the research findings.

In the context of this study, the target population comprises Executive Managers, Senior Managers, Operational Manager, Administrators, Quality Specialists, Project Specialists, ICAO Specialists, IT Specialists, and Inspectors. Additionally, the population included employees who were not part of the study. These external individuals were invited to contribute valuable feedback on the interview questions, explicitly assessing their suitability and relevance to the research questions. Their input was solicited to enhance the quality and appropriateness of the interview inquiries.

5.5.5 Sample

The sample population for this study was more specific than the broader population, as indicated by Du Plooy-Cilliers, Bezuidenhout, and Davis (2014). The sample comprised 25 employees from SACAA, comprising men and women with diverse cultural backgrounds. Given the qualitative nature of the research, a smaller sample size was deemed appropriate since the focus was on conducting an in-depth analysis during the data analysis phase.

A purposive sampling approach was employed to gain a deeper understanding of how SACAA employees made sense of adjustments during the establishment of virtual work. Participants were thoughtfully selected from the chosen case organisation, SACAA, based on specific criteria. The inclusion criteria ensured that all designated employees had been working virtually since the emergence of the COVID-19 pandemic in March 2020 and that they belonged to the category of white-collar workers. This choice was motivated by the recognition that white-collar workers generally had more opportunities to work from home than blue-collar workers, as supported by previous research (Caligiuri et al., 2020; Handy & Mokhtarian, 1996).

The selection was limited to SACAA employees in Midrand, who had been affected by the same governmental recommendations throughout the pandemic. This geographic focus allowed for a consistent context and shared experiences among the participants, enhancing the relevance and cohesiveness of the data collected (Ritchie, Dunham, Zeggini & Flicek, 2014).

The purposive sampling strategy was explicitly chosen to target SACAA employees who had experienced virtual work since the pandemic's early stages and were from Midrand's white-collar workforce. These individuals were considered best suited to

provide rich, detailed, and comprehensive insights into establishing virtual work within the organisation. The strategic sampling approach further emphasised the significance of selecting participants who could offer valuable and nuanced data for the purpose of this study (Rapley, 2014; Ritchie et al., 2014).

▪ **The Sample Size**

The selection of participants was carefully guided by their perceived suitability in providing rich, detailed, and comprehensive data that would strongly contribute to the study's objectives. The study utilised a purposive sampling strategy to intentionally gather a sample with specific characteristics, resulting in a more homogeneous group (Ritchie et al., 2014). By employing this approach, the study aimed to ensure that the participants' perspectives and experiences would be highly relevant and valuable for addressing the research questions and objectives.

To recruit participants, requests to participate in the study were sent via email, which included comprehensive information about the research purpose and the interview process. Ethical considerations were diligently presented to prioritise participant well-being and to obtain informed consent.

The primary participants for the face-to-face semi-structured interviews included two Executive Managers, three Senior Managers, four Operational Management Employees, one Quality Specialist, one Project Specialist, one ICAO Specialist, One IT Specialist, two Administrators and seven Inspectors. Additionally, three support employee employees were also included in the interviews. By selecting participants from different roles and levels within the organisation, the study aimed to capture a comprehensive and varied perspective on the experiences and challenges related to virtual work at SACAA.

▪ **Inclusion Criteria**

The study made deliberate efforts to ensure diversity among the participants involved in the study. The selection criteria for participants were carefully designed to include individuals from various backgrounds and characteristics. These inclusion criteria were as follows:

- **Gender and Age:** Participants included both males and females within the working age range of 26-60 years. The ages were chosen based on the minimum requirement for most of the positions at SACAA, which is a tertiary qualification plus at least five years in the aviation industry to capture a broader age spectrum, individuals representing different age categories, including 26-32, 33-39, 40-46, 47-53, and 54-60, were chosen. This ensured a range of perspectives from different professional and personal development stages.
- **Ethnic Diversity:** The study aimed to include participants from various ethnic groups. This approach allowed for exploring cultural perspectives and potential influences on virtual work experiences. By involving individuals with diverse cultural backgrounds, the study aimed to gain a deeper understanding of the impact of culture on virtual work dynamics.
- **Language Variation:** Participants who spoke different languages were selected to account for potential language-related influences. By including individuals with diverse linguistic backgrounds, the study aimed to capture any nuances or variations in virtual work experiences that may arise due to language differences.
- **Technical and Support Roles:** Participants from both technical and support roles were included to understand the organisation's operations comprehensively. This approach allowed for insights specific to each area and provided a well-rounded perspective on establishing virtual work across different organisational functions.
- **Tenure in the Organisation:** The study sought to include participants with varying experience levels within the organisation. This included both long-serving employees and those who were relatively new to the organisation. By incorporating different levels of tenure, the study aimed to capture insights from individuals with varying levels of organisational knowledge and historical context.
- **Geographic Representation:** Participants residing in Gauteng, the study's location, were chosen to ensure geographical representation. This approach aimed to consider any regional factors or influences that may impact virtual work experiences specific to that area.

By employing these inclusion criteria, the researcher aimed to gather diverse perspectives and experiences. This diversity enriched the qualitative analysis and contributed to a comprehensive understanding of the research topic, allowing for a more nuanced exploration of virtual work within the organisation.

▪ **Sampling Criteria**

As Patton (2015) defined, sampling criteria are the established standards employed to select a subset from a larger population. Creswell (2015) underscores the importance of these criteria, emphasising their role in ensuring the selection of an adequate and accurately representative sample. The study employed a non-probability sampling method known as purposive sampling, as outlined by Du Plooy-Cilliers et al. (2014). Purposive sampling, like convenience sampling, enabled the study to include participants who met the population sample criteria selectively, thereby enhancing the accuracy of the research findings (Du Plooy-Cilliers et al., 2014).

For the study conducted at SACAA, a non-probability sampling approach known as maximum variation purposive sampling was employed. This sampling technique was explicitly chosen to align with the research objective of examining SACAA employees engaged in virtual work. The sample size consisted of 25 participants, representing a diverse range of roles within the organisation.

▪ **Sampling Methods**

According to Johannessen et al. (2020), selecting a sample in qualitative research should prioritise purpose rather than representativeness. Consequently, this study employed a purposeful sampling strategy, wherein participants were chosen based on the study's judgement rather than random statistical selection (Saunders et al., 2019). Precisely, purposeful sampling involves determining the sample to be explored for the research question and selecting participants from that predetermined sample (Johannessen et al., 2020). By utilising purposeful sampling, the study aimed to ensure that participants were intentionally selected to provide rich and relevant insights related to the research objectives. This approach allowed for a targeted exploration of the specific phenomena or perspectives of interest, enabling a deeper understanding of the research topic.

It is important to note that purposeful sampling does not seek to achieve statistical generalisability but instead emphasises the attainment of in-depth understanding and contextual richness within the selected sample. By employing purposeful sampling in this study, the research team aimed to maximise the relevance and significance of the findings within the specific research context.

In this study, the sample was selected from employees within SACAA who were members of a virtual workforce that had undergone a transition to virtual work. The participants were specifically chosen based on their direct experience and involvement in the virtual work, allowing for a focused investigation into the effects and dynamics of transitioning to virtual work within the context of SACAA.

By selecting employees who were actively engaged in the virtual work and had first-hand experience of the transition, the study aimed to gather in-depth insights into the challenges, opportunities, and outcomes associated with the shift to virtual work. This targeted approach facilitated a nuanced understanding of the specific context and dynamics of SACAA, enabling the exploration of the transition effects from the perspective of those directly impacted by it.

It is worth noting that the sample in this study may not represent the entire workforce or all possible scenarios within the organisation. However, focusing on employees who were part of the virtual work transition ensured a concentrated exploration of the phenomenon under investigation, providing valuable insights into the experiences and perspectives of those directly involved in the virtual work transition.

5.5.6 Data Collection

Data refers to raw information that lacks organisation and meaning until it is processed and analysed (Mohajan, 2016). While data can sometimes possess a structured format, it typically lacks practical utility without being placed in a specific context (Mohajan, 2016). Data collection involves gathering significant data during interviews through various methods, such as audio or video recording and handwritten notes (Sutton & Austin, 2015). These approaches help in capturing valuable information from participants. Research studies can employ either primary or secondary data sources for analysis (Creswell, 2015). This study gathered primary data through interviews with participants from the selected sample. This approach ensured the collection of firsthand

information directly from the individuals involved, enhancing the study's reliability and depth of insight.

The data collection for this study took place in three steps to gain a comprehensive understanding of the establishment of virtual work. In the first stage, face-to-face semi-structured interviews were conducted with two employer representatives. These interviews were designed retrospectively to capture the practical actions and decisions made by the employer throughout the implementation of virtual work. The interview questions were formulated based on relevant themes identified from previous research on virtual work. Face-to-face semi-structured interviews were chosen to create a conversational atmosphere, encouraging open and candid responses from the employer representatives. The insights gained from these interviews influenced the development of the interview guide for the next data-gathering stage.

During the second stage of the study, a pilot study was conducted to refine the research process and formulate interview questions for management and SACAA employees. A total of six pilot interviews were carried out, and the findings from these interviews played a crucial role in shaping the final interview questions. The pilot study served as a valuable prelude to the primary data collection, providing insights into the initial interview questions' clarity, relevance, and effectiveness. The study carefully examined the responses and feedback from the pilot interviews to identify potential issues or improvement areas. This allowed for adjustments and refinements to ensure that the interview questions would effectively capture the desired information and facilitate an in-depth exploration of the research topic.

The pilot study could fine-tune the interview questions, making them more focused, comprehensive, and aligned with the research objectives. Additionally, the pilot study offered an opportunity to assess the interview process, ensuring it was well-structured, engaging, and conducive to obtaining rich and meaningful data. The insights gained from the pilot study contributed significantly to the success of the subsequent data collection with management and SACAA employees. The refined interview questions facilitated in-depth discussions and provided valuable perspectives on establishing virtual work within SACAA.

The third stage involved 25 face-to-face semi-structured interviews with employees. The interview questions were also retrospective, aiming to understand how the

employees had made sense of the practical actions and decisions during the establishment of virtual work. The interview guide covered various angles of the study's subject matter. Face-to-face semi-structured interviews offered greater flexibility to explore participants' answers, emotions, and underlying assumptions, providing more detailed data. The in-depth nature of these interviews allowed for a comprehensive understanding of the phenomena under study.

The interviews were conducted face-to-face. This approach was chosen to minimise the risk of missing critical non-verbal cues and maintain social distance during the pandemic. Face to face interviews were chosen. This allowed the researcher to explore the topics in greater depth. The ability to ask to follow up questions and to probe for more detailed responses provided a richer more nuanced understanding of participants perspective. The face-to-face Interviews allowed the researcher to observe non-verbal cues, such as body language, facial expressions and tone of voice. These cues provided additional context and insight into the participants responses.

In face-to-face interviews established personal connection and helped in putting the interviewees at ease. This encouraged them to share more openly and honestly this has enhanced the quality of the data that was collected. Conducting the interviews in person allowed the researcher to control the interview environment. minimising distractions and interruptions, this control helped create a conducive atmosphere for focused and productive conversations.

The chosen data collection approach and qualitative design allowed for a rich and deep understanding of establishing virtual work within SACAA. The face-to-face semi-structured interviews provided valuable insights from employer representatives and employees, shedding light on the practical mechanisms and sense-making processes surrounding adopting virtual work in the organisation.

- **Sources of Data**

Sources of data encompass the diverse channels or origins from which data is gathered for subsequent analysis (Creswell, 2015). Primary data are firsthand information collected directly by the study for the first time, and they hold the distinction of being both factual and original. Primary data gathered directly for a distinct research purpose and devoid of prior publication holds an esteemed position due to its unparalleled

attributes of reliability, authenticity, and objectivity (Brynard & Hanekom, 2011). This type of data is often likened to a pristine source, as it offers a firsthand perspective that can be tailored to the precise needs of the research, ensuring a solid foundation for rigorous analysis and comprehensive insights. This data source provides valuable insights and contributes to the research's credibility and depth of understanding.

▪ **Literature Review**

The primary goal of a literature review, as articulated by Bless and Smith (2000), is to systematically locate, meticulously read, comprehensively understand, skilfully interpret, and ultimately synthesise conclusions from the existing body of published literature relevant to the research topic at hand. As further emphasised by Polit and Beck (2008), the literature review serves a dual purpose: it not only seeks to gain a profound comprehension of the current state of knowledge but also endeavours to construct a persuasive argument that underscores the imperative need for conducting the proposed study. Consequently, this highlights the crucial role of a literature review in illuminating the gaps within the existing knowledge landscape, thereby affirming the rationale for pursuing research on the chosen issue.

Indeed, a literature review is a vital tool for researchers, enabling them to offer a comprehensive overview of the current state of knowledge within a specific research area. By synthesising and analysing prior research, a well-executed literature review not only provides a foundation of understanding but also helps shape the research questions and objectives, guiding the direction of the study. It essentially acts as a bridge that connects the past research with the present inquiry, fostering a deeper understanding of the subject and facilitating the development of meaningful research contributions.

▪ **Data Collection Methods**

As regards this study, interviews were deemed essential as they allowed for in-depth exploration of participants' perspectives, experiences, and insights related to the research topic. Through interviews, the study engaged in structured and purposeful conversations with the participants, enabling a comprehensive understanding of their opinions, behaviours, and experiences about virtual work within the organisation.

The use of interviews as a primary data collection method offered several advantages. Firstly, it allowed participants to express themselves freely, allowing for the rich and nuanced data necessary for a qualitative study. Additionally, interviews clarified ambiguous responses, as the interviewer could ask follow-up questions or request explanations when needed.

By selecting interviews as the primary data collection method, the study ensured a direct and interactive approach to gathering data, enabling a deeper exploration of the research topic. This methodological choice was made to confirm that the study's objectives were met and generate the valuable insights required for a comprehensive analysis and interpretation of the findings.

The study employed face-to-face semi-structured interviews as the data generation instruments. The semi-structured interview allows researchers to include critical questions about the topic while allowing the interviewer and interviewee to explore issues or responses in-depth (Schmidt, 2004; Saunders et al., 2009; Evans & Lewis, 2018). This approach is more flexible compared to structured interviews. In a semi-structured interview, the study can suggest or consult with the participant on what to discuss, significantly if the conversation strays from the original topic. As a result, this method proves helpful in keeping the discussion focused on the topic domain for both the interviewer and interviewee. This interview method fosters two-way communication between the interviewer and interviewee, enabling open-ended responses. This aspect allows the interviewer to gather more in-depth information about the research topic or issue (Islam & Aldaihani, 2022).

The study compiled the interview schedule, which consisted of open-ended questions for follow-up inquiries. Prior to the main interviews, a pilot study involving 6 participants was conducted to ensure the appropriateness and comprehensibility of the questions. These interviews were designed to capture how employees and managers navigated the practical actions and decisions within the virtual work environment.

In addition to the employee interviews, two employer representatives were also interviewed in an unstructured manner. These representatives form part of the pilot study they were asked the same questions as the rest of the participants. As described by Bryman (2011), unstructured interviews fostered a conversational atmosphere conducive to participants openly discussing how virtual work became the new normal.

The questions posed to the employer representatives focused on their practical actions and decisions during the establishment of virtual work. These interviews explored various perspectives related to the subject of the study and were organised into thematic areas based on prior research on virtual work.

Face-to-face semi-structured interviews provided the flexibility to delve into specific responses, feelings, and implicit assumptions. This approach facilitated a deeper understanding of the underlying mechanisms, a crucial aspect of this study. The study aimed to collect detailed and specific data (Bryman, 2011; Charmaz, 2014; Lewis, 2014).

With the interviewees' consent, the interviews were recorded and lasted between 50 and 60 minutes. They were conducted in English and took place in June 2023. Initially, 25 interviews were planned, with the possibility of conducting additional interviews if necessary to achieve a satisfactory level of data saturation.

▪ **The Rationale for Using Interviews**

The advantages and limitations of using interviews in this study were as follows:

Advantages of Interviews:

- **Checking the accuracy of impressions:** Interviews serve as a valuable method for researchers to validate the accuracy of observations made during the study (Creswell, 2009; 2013).
- **Exploring attitudes and in-depth information:** Interviews are beneficial for exploring attitudes and delving into various aspects of interest, providing rich and in-depth information (Creswell, 2009; 2013).
- **Probing for detailed data:** Interviews allow for asking precise questions and using probing techniques to collect comprehensive and detailed data (Creswell, 2009; 2013).
- **No literacy requirements:** Unlike written surveys or questionnaires, interviews are not limited by participants' literacy levels, ensuring that individuals from various educational backgrounds can participate (Creswell, 2009; 2013).
- **Exploring complex and unknown issues:** Interviews offer a platform to explore complicated and unknown problems, allowing participants to provide insights and perspectives (Creswell, 2009; 2013).

Limitations of Interviews:

- Indirect information and interviewer bias: Interviews provide information that is filtered through the perspectives and interpretations of the interviewers, introducing potential bias in the data collected (De Vos, Strydom, Fouché and Delpont, 2005; Creswell, 2013).
- Presence bias: The presence of the study during interviews may influence participants' responses, leading to socially desirable answers or altered perspectives (Creswell, 2013).
- Articulation challenges: Not all individuals may possess the ability to articulate their thoughts and experiences effectively, potentially affecting the depth and quality of the information gathered (De Vos et al., 2005; Creswell, 2013).
- Response bias and conformity: Participants may tailor their responses to align with what they perceive the study wants to hear, potentially leading to biased or inaccurate information (De Vos et al., 2005; Creswell, 2013).
- Unexpected shifts and therapeutic aspects: Interviews can occasionally take unexpected turns, deviating from the initial research focus. In some cases, participants may utilise the interview as an opportunity to discuss personal issues, transforming the interview into a therapeutic interaction (De Vos et al., 2005; Creswell, 2013).

These advantages and limitations of interviews were considered when designing and conducting the interviews for this study.

- **Preparation of Instrument**

Face-to-face semi-structured interviews are a research method that combines elements of both structured and unstructured interviews. In face-to-face semi-structured interviews, the study follows a predetermined set of open-ended questions and themes while allowing for flexibility and exploration of additional topics or follow-up questions based on the participants' responses.

The key characteristics and information about face-to-face semi-structured interviews are as follows:

- **Flexibility:** Face-to-face semi-structured interviews offer a balance between structure and flexibility. Although the study has a prepared interview guide or set of questions, participants can adapt the interview based on the flow of the conversation and delve deeper into specific areas of interest.
- **Open-ended questions:** Face-to-face semi-structured interviews use open-ended questions to encourage participants to provide detailed and descriptive responses. These questions typically begin with phrases like "Can you tell me about..." or "How do you perceive...," allowing participants to express their thoughts and experiences in their own words.
- **Themes and topics:** The interview guide for face-to-face semi-structured interviews includes a set of themes or issues that the study wants to explore. These themes serve as a framework for the interview, ensuring that essential areas of interest are covered while allowing flexibility.
- **Probing and follow-up questions:** Face-to-face semi-structured interviews involve probing and follow-up questions to gain deeper insights and clarification. The study can ask additional questions to explore participants' responses further, encouraging them to elaborate on their answers or provide specific examples.
- **Participant-centred approach:** Face-to-face semi-structured interviews focus on the participant's perspective and experiences. The interviewer listens actively, allowing participants to express their thoughts and feelings without imposing preconceived notions or biases.
- **Data richness:** Face-to-face semi-structured interviews aim to collect rich, detailed qualitative data. Participants can provide nuanced responses, share personal experiences, and express their opinions, contributing to a more comprehensive understanding of the research topic.
- **Recording and transcription:** It is common practice to record face-to-face semi-structured interviews with the participants' consent.
- **Recording the interviews helps ensure accuracy during data analysis and allows researchers to review the discussions in detail.**
- **Transcribing the recorded interviews facilitates data organisation and analysis.**

Face-to-face semi-structured interviews are widely used in qualitative research as they allow for gathering in-depth and contextually rich data. They enable researchers to

explore participants' perspectives, experiences, and understandings of a particular phenomenon, providing valuable insights for the study.

▪ **Interview Questions Construction**

The essence of qualitative research lies in the deep-rooted desire to comprehend the profound meaning embedded within data, mainly focusing on the significance individuals attribute to their experiences and circumstances (Maree, 2020). This foundational principle aligns seamlessly with the objective of this study, which delves into the transition from traditional workforce settings to a virtual workforce environment. Considering the subjective nature of the experiences SACAA employees encounter in virtual work and its pivotal role in fulfilling their mandate, a qualitative design is wholly justified. Such an approach emphasises the exploration of meaning and subjective perspectives, enabling a richer understanding of the complexities involved.

For this study, the study crafted a set of carefully tailored interview questions, addressing the unique needs of different employee groups within SACAA. Specifically, the study developed distinct questions for the leadership team operational management and technical and support employees. To comprehensively explore the transition from traditional to virtual offices within SACAA. The research interview questions have been categorised to address various aspects of this transition. The following categories have been designed to capture a holistic view of participants, experienced perception and insights.

- Category 1- Understanding of Virtual Work and Traditional Office Setups:
- Category 2- Aviation Industry and Virtual Work Practices:
- Category 3- Practical Recommendations for SACAA:
- Category 4- Factors Influencing Transition to Virtual Work:
- Category 5 -Employee Perceptions and Adaptation Processes:
- Category 6- Organisational Challenges and Strategies for Transition:
- Category 7-Evidence-Based Strategies and Recommendations for Sustainability:
- Category 8-Training and Adaptation to the Virtual Work Environment.
- Category 9 - Overall Satisfaction with Virtual Work Arrangements.
- Category 10-Suggestions for Improvement in Virtual Work Practices.

By structuring the interview questions in this manner, the aim was to thoroughly explore and gain valuable insights into each aspect of the virtual workforce transition within SACAA. Through the qualitative data obtained from these interviews, the study aspired to paint a holistic picture of the employees' experiences, challenges, and recommendations in adapting to this new work paradigm. The knowledge gained from this study will contribute to academic research and aid SACAA and other organisations in optimising their virtual work arrangements and promoting employee well-being and productivity.

- **Interview Schedule**

The interview schedule was thoughtfully crafted in English, considering that English is the primary communication medium at SACAA. This linguistic choice ensured seamless and effective interaction with the participants, all skilled professionals with the requisite qualifications for their respective positions. Their proficiency in the English language enables them to engage in conversations and articulate their thoughts with ease.

Recording of data

- **Preparation of Research Participants**

The study took several steps to ensure transparency and informed consent from the participants. These steps are crucial to establishing trust and maintaining ethical standards in research. Firstly, the study wrote a memorandum requesting approval from the DCA to use SACAA as a case study.

Secondly, the study briefly explained the research to the participants, clearly stating the research aims and the specific information they would collect. By doing so, the study ensured that participants clearly understood the purpose of the research and what would be expected of them. To further inform the participants, a preliminary briefing session was conducted. This session served as an opportunity to provide participants with more detailed information about the research procedures and address any questions or concerns they may have had. Conducting the briefing session in English, the common language used in the study, allowed for effective communication and comprehension.

Lastly, during the briefing, the study reiterated the research process, emphasising the importance of compiling and publishing a research report to benefit future field researchers. The study also highlighted the significance of confidentiality, assuring participants that their participation would remain anonymous and that their information would be treated with the utmost confidentiality. The issue of obtaining consent from the participants was also discussed during the briefing. Participants were informed about the consent form and its purpose.

The study sought to ensure that participants fully understood the objectives and voluntarily agreed to participate. Overall, these measures demonstrated the study's commitment to conducting the study ethically and with the informed consent of the participants. By providing clear information, addressing concerns, and obtaining consent, the study aimed to create a conducive and respectful environment for participants to contribute their valuable insights and experiences willingly.

- **Recording of Data**

Data collection methods intended for subsequent processing are categorised as "data recording" (Patton, 2015). In the context of interview sessions, the information acquired can be documented in various formats, with notetaking being one of the most straightforward and unobtrusive tools. This unassuming method generally avoids adverse reactions from participants and ensures an efficient way of capturing data.

In addition to notetaking, audio and video recording represent alternative methods for data capture. However, it is imperative to note that utilising these technologies requires explicit consent from the participants (Anozie, 2017). Respecting participants' autonomy and privacy is paramount when employing audio and video recording as data collection mechanisms.

Throughout all interactions with participants, meticulous handwritten notes were diligently recorded. Participants consented to audio recording of the interview proceedings to ensure comprehensive data capture and as a precautionary measure. This audio recording served as a backup, addressing the possibility that handwritten notes might not fully encompass the discussions. This dual approach facilitated

thorough documentation and upheld ethical standards and participant cooperation in the data collection.

- **Pilot Study**

The study took proactive steps to solicit feedback from two SACAA employees who were not study participants before starting the pilot interviews. These external individuals were asked to provide valuable feedback on the interview questions, focusing on the viability and appropriateness of the research at hand. Their invaluable input played a critical role in evaluating the questions' wording, sequence, and length, ensuring that they were adept at effectively capturing the desired information and, most importantly, suitable for use in the study.

A pilot study was conducted on 6 participants representing diverse roles within SACAA. These participants did not form part of the 25 participants of the study, they included one technical manager, one quality specialist, two inspectors, and two members from the support departments. This sampling approach was chosen for its ease and convenience in selecting participants for the study. The pilot study was a crucial preparatory step to accurately assess the time and resources required for the larger-scale main study. Through this assessment, the study could effectively plan and estimate the resources needed, including participant recruitment, data collection instruments, and personnel. This meticulous planning ensured a smooth and successful execution of the main study, minimising potential challenges and ensuring a robust data collection process.

By conducting the pilot study with a representative group of participants, the study gained valuable insights into the feasibility and practicality of the research design and data collection methods. Any adjustments and refinements made based on the pilot study's findings contributed to the overall quality and reliability of the research outcomes.

Notably, the pilot test yielded an intriguing finding related to using open-ended questions. Researchers observed that participants, while answering one set of questions, often provided insights relevant to other questions not yet posed. This unexpected phenomenon offered a unique opportunity for the study to gain valuable

additional information and perspectives. As a result, the researcher could refine and amend the interview questions more effectively, minimising redundancies and potential duplication in the final questionnaire.

By addressing this unintended overlap in responses, the researcher- aimed to optimise the data collection process and maximise the quality and relevance of the information obtained from participants. These adjustments would ultimately lead to a more focused and cohesive set of interview questions, enhancing the overall integrity of the research outcomes. In their authoritative book *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*, Creswell, and Poth (2017) underscore the paramount importance of pilot studies in ensuring the suitability of data for a researcher's investigation. They emphasise that pilot studies provide researchers a crucial opportunity to test and fine-tune their research questions and objectives before embarking on the full-scale study.

Creswell and Poth (2017) further emphasise that pilot studies are essential for researchers to determine the most suitable approaches, methods, and data collection and analysis techniques. Through this small-scale trial run, researchers can anticipate potential challenges and areas of improvement, thereby facilitating necessary adjustments to enhance the research design's overall effectiveness and efficiency.

The pilot test served as a valuable prelude to the main study, shedding light on the unforeseen interconnections between different questions and revealing the participants' inclination to offer comprehensive answers that addressed multiple aspects of the research topic. As a result, the study could optimise the interview structure by incorporating cross-referencing and improving question phrasing to ensure greater clarity and coherence. The insights gained from the pilot test enhanced the research instrument's overall quality and deepened the research topic's understanding. Acknowledging and addressing the unexpected interactions between open-ended questions, the final questionnaire is now poised to capture more prosperous and nuanced responses from the participants, empowering the study with a more robust dataset.

The pilot test proved invaluable in refining the research process, allowing the study to harness the unintended effects of open-ended questions. This adaptation minimised repetitions and ensured that the interview questions aligned more closely with the participants' experiences and perspectives, making the study more comprehensive and insightful. By shedding light on the significance of pilot studies, Creswell and Poth (2017) firmly support the idea that these preliminary investigations play a vital role in qualitative research. Their insights highlight how pilot studies offer a range of invaluable benefits, ensuring the appropriateness and effectiveness of data collection in the main study.

- **Face-to-face Semi-Structured Interviews**

Face-to-face semi-structured interviews are a qualitative research method that involves direct physical interaction between the study and the participant (Saunders et al. 2019). In this type of interview, the study and participant are in the exact location, allowing for real-time communication and observation of non-verbal cues.

Despite the alluring prospects of technological advancements providing an alternative to traditional face-to-face interviews, this study purposefully embraced in-person interviews, driven by many compelling factors. This deliberate choice aimed to optimise the calibre and profundity of the data gathered, thus cultivating a more thorough comprehension of the research topic. Saunders et al. (2019) explained the distinctions among organised, semi-structured, and unstructured interviews concerning their levels of formality and structural framework: Face-to-face semi-structured interviews occupy a middle ground between the two ends of the spectrum – unstructured and structured interviews – while maintaining the distinctive quality of being non-standardised. Structured interviews are marked by a sense of formality and systematic arrangement, whereas unstructured interviews adopt a more informal and open approach. The selection of the appropriate interview technique is guided by the inherent nature of the research subject and its design.

An essential advantage of face-to-face interviews is the ability to observe non-verbal cues. Non-verbal communication, such as facial expressions, gestures, and body language, can provide additional insights into the participant's thoughts and emotions, enhancing the understanding of their responses. These non-verbal cues can be

particularly valuable when exploring complex or sensitive topics. However, face-to-face interviews also have some limitations. They require physical proximity and scheduling coordination between the study and participants, which can be challenging in large-scale studies or when participants are geographically dispersed. Face-to-face interviews may also be influenced by social desirability bias, where participants may feel compelled to provide responses that align with societal expectations or the perceived desires of the study. Researchers must recognise this bias and strive to create a non-judgemental and non-directive interview environment.

Face-to-face interviews facilitate rapport building and trust between the study and the participant. Establishing a comfortable and open environment encourages participants to share personal and sensitive information, as Dawson (2007) mentioned. The study's presence and active listening during the interview can help create a supportive atmosphere, enabling participants to feel valued and respected. The interviews were conducted conversationally in a semi-structured manner based on the interview guide so they could bring out as much detail as possible. Smith and Johnson (2020) emphasise the importance of accurately recording participant responses for maintaining data accuracy.

A total of 25 face-to-face semi-structured interviews were conducted, incorporating open-ended questions and the flexibility to ask follow-up inquiries. The interview guide was designed to elicit retrospective responses from the employees, aiming to capture how they perceived and made sense of the practical actions and decisions taken during the establishment of virtual work within the organisation (Johannessen et al., 2020). Moreover, the interview guide covered a range of questions, offering diverse perspectives on the study's subject matter from various angles.

Among the interview participants, a diverse array of individuals, encompassing both women and men, occupied distinct positions and fulfilled varied roles within the company. This inclusive composition enriched the study, providing a more profound and all-encompassing spectrum of perspectives. This, in turn, facilitated a thorough exploration of the research question and enabled the acquisition of valuable theoretical insights. An interview guide serves as the initial framework for a semi-structured interview. However, the sequence of questions and topics can adjust depending on the

conversation's organic progression (Johannessen et al., 2020). This malleability allows the interview to evolve organically, ensuring a more natural and comprehensive exploration of the subject matter.

Moreover, the inherent flexibility of face-to-face semi-structured interviews empowers interviewers to articulate their thoughts openly and focus on subjects that resonate with them. This adaptability provides a conducive environment for delving into topics of personal interest. To further illuminate and delve into the subjects or responses offered by the participants, the study can follow up with additional questions. Building upon this foundation allows significant revelations about the research subject and inquiry to be unearthed, offering a substantial contribution to the research's depth and breadth.

▪ **Interviewing Procedure**

Ahead of the interview sessions, each participant received a comprehensive email encompassing a consent form. This form outlined the confidentiality commitments and the estimated duration of the interviews. It was a requisite for all participants to sign this document, thus confirming their awareness of the assurance of data anonymisation. Additionally, a unanimous consensus was established with every participant, delineating the specific details of their interview – the date, time, and venue.

A collective understanding prevailed that the interviews would transpire at SACAA offices in Midrand. The participants conducted their professional responsibilities in this location, offering an added convenience layer. A designated 10:00 a.m. to 12:30 p.m. time slot was mutually agreed upon for the interview sessions to harmonise these arrangements. This meticulous planning and mutual understanding set the stage for an efficient and effective interview process.

The decision to employ English in the interview process is well-aligned with the participants' professional backgrounds, as they are accustomed to utilising the language within their roles at SACAA. Their proficiency in English strengthens the validity and reliability of the data collected during the interviews, ensuring that the information obtained accurately reflects their experiences and viewpoints. Using English as the interview language, the study aimed to create a conducive and familiar

environment for the participants, encouraging them to express their insights, experiences, and perspectives with clarity and precision.

Additionally, all interviews were conducted with the explicit consent of the interviewees and were recorded to ensure the discussions were captured accurately. The interviews lasted approximately 30 minutes, providing ample time for in-depth conversations and comprehensive responses from the participants. As English was the language most comfortable for the participants, all interviews were conducted in English, eliminating the need for translation and ensuring seamless communication. Moreover, this linguistic consistency facilitates better understanding and communication between the study and the participants, resulting in more comprehensive and insightful responses. The interactive nature of face-to-face interviews allows for a deeper understanding of the participant's perspectives, experiences, and emotions.

Before the interviews, the selected participants were provided with a comprehensive overview of the study's objectives and reminded that their participation was entirely voluntary. Once the participants indicated their willingness to participate in the study, the consent cover letter was read to each of them. They were assured that their involvement would remain confidential throughout the investigation. Furthermore, the participants were informed of their right to withdraw from the study at any time if they felt uncomfortable during the interview process.

A total of 25 interviews were conducted and meticulously recorded. In line with this, Saunders et al. (2019) underscore the importance of establishing a suitable interview time frame. To adhere to this principle, the interviews were thoughtfully structured to span between 40 and 60 minutes each. Prior to the interviews, participants were thoughtfully apprised of the anticipated time commitment, ensuring transparency and informed participation. Saunders et al. (2019) suggest that using a voice recorder can be beneficial in ensuring both privacy and data preservation. To uphold these principles, the participants' responses were meticulously documented during each interview session, which lasted approximately 40 to 50 minutes.

▪ **Interviewing Guide**

The participants were prompted to deliberate insightful information using an interview guide as a starting point for face-to-face semi-structured interviews. In this regard, Johannessen et al. (2020) highlight that a partially structured and flexible interview guide strikes a reasonable balance between standardisation and flexibility. So, the introduction, reflection, and closing questions from Tjora's (2018) suggested interview guide were used. Because of this three-pronged strategy, the interviews always began with open-ended inquiries about the participants' backgrounds, roles within the established organisation, and experiences with virtual teaming.

Face-to-face semi-structured interviews were meticulously orchestrated, employing an interview guide as a foundational framework to stimulate thought-provoking insights from the interviewees. In this context, Johannessen et al. (2020) highlight the importance of an interview guide that combines structured elements with room for adaptability, striking a harmonious equilibrium between standardisation and flexibility. In accordance with this approach, the interview guide proposed by Tjora (2018), encompassing introduction, reflection, and closing inquiries, was meticulously adhered to. This three-pronged structure engendered a seamless conversational flow, where the interviews consistently commenced with open-ended queries about the participants' backgrounds, roles within the organisation, and encounters with virtual teamwork.

Open-ended reflection questions were posed, specifically targeting the transition to virtual work. This line of inquiry delved into their individual experiences and challenges, providing a deep understanding of their journey. Before delving into subjects like communication, trust, and socio-organisational dynamics, this interview approach facilitated a comprehensive exploration of the interviewees' holistic virtual teaming experiences. Moreover, it afforded the interviewees a preparatory phase for more in-depth and reflective queries that would follow.

As the interviews concluded, participants were thanked for their engagement and allowed to address any questions or concerns they might have had. This final segment effectively redirected the conversation to a natural ending point. Additionally, interviewers were encouraged to offer any supplementary insights they felt compelled to share within this framework. This meticulous interview approach ensured a balance

between structured guidance and the organic flow of dialogue, fostering a rich and nuanced exploration of the subject matter.

- **Transcription of the Recordings**

As described by Stuckey (2014), transcription is a pivotal process where data originally captured in spoken form is converted into written format for subsequent analysis. In this study, data was collected from participants via face to face semi structured interviews which were recorded. The recorded audio data was meticulously transcribed using Microsoft 365 dictation.

The researcher then cleaned the data in preparation for analysis. To validate the accuracy of the transcription, a diligent cross-checking process was conducted, involving consultations with the selected participants from each category. This meticulous approach ensured the fidelity of the subscribed transcribed of the transcribed data and reinforced the quality of data subsequent analysis.

5.5.7 Analysis of Data

The data analysis section comprehensively explains the techniques and procedures employed to analyse the collected data. It elaborates on the steps taken to organise, categorise and derive meaningful insights from the data. The section may highlight the use of coding schemes, thematic analysis, or other analytical approaches to interpret the data and draw conclusions.

This study utilised an inductive reasoning approach, which is consistent with qualitative research methods. The goal was to gain deep insight into the meaning that individuals are attached to events progressing from specific detailed data to broader concepts (Woiceshyn & Daellenbach,2018). As noted by Morse and Mitcham (2023), qualitative research is fundamentally based on inductive reasoning which involves developing general principles from data through the bottom-up approach. In contrast deductive reasoning operate in a top-down manner, moving from general theories to specific observations.

The current study employed inductive approach, examining the construct under investigating from the perspective of participants to gather detailed information.

Through this approach, the researcher aimed to understand the meaning participants ascribed to various issues using qualitative data. This method plays significant emphasis on the context of events, facilitating a richer and more nuanced understanding of transition from traditional to virtual work at the South African Civil Aviation Authority.

By adapting an inductive approach, the research aimed to develop general insights and theories based on specific data collected, thereby contributing valuable knowledge to the field of virtual work environment.

▪ **Method of Analysis**

Thematic analysis was applied to analyse the collected data. This involves a process of identifying themes from non-numeric data such as descriptions, narratives or pictures rather than statistically analysing the numbers. Thematic analysis entails scrutinising and categorising the data and identifying patterns or themes within it (Du Plooy-Cilliers et al., 2019) The following 6 steps as outlined by Soratto et al., (2020) were applied in this study with the researcher was actively engaging in each step.

In conducting the analysis, the researcher followed this structured approach to ensure a comprehensive understanding and accurate representation of the data. Step 1: the researcher immersed themselves in the data by thoroughly reading the transcribed interviews multiple times to become intimately familiar with the content and nuances of the participants' responses (Soratto et al., 2020). This immersion was crucial for gaining a deeper understanding of the material. Step 2, the researcher engaged in initial coding, systematically highlighting important concepts within the data transcripts and making preliminary notes to capture initial impressions and emerging ideas. This step involved breaking down the data into meaningful units for further analysis (Bryman et al., 2019).

Step 3, following the initial coding the researcher categorised the codes into sub-themes by collating excerpts from the data that conveyed similar meanings. These sub-themes were then organized into broader themes, allowing for the coherent categorization of data and the identification of underlying patterns (Williams and Moser, 2022). In step 4 the review and refinement of themes, the researcher meticulously scrutinised the identified themes and their sub-themes to ensure there were no overlaps and that clear

connections were established. This step involved a detailed examination to ensure each theme accurately represented the data and maintained clear distinctions from other themes (Castleberry & Nolen, 2018; Williams and Moser, 2022).

In Step 5 each theme was then clearly defined and labeled to encapsulate its essence, summarising the core meaning and ensuring the labels accurately reflected the data content and context. Finally step 6, the researcher wrote up the findings by composing a detailed narrative supported by direct quotes from the participants. This narrative provided a comprehensive account of the study's results, highlighting significant insights and contributions to the research domain.

Thematic analysis is well-suited for examining complex issues in the studies that rely on detailed information and insights collected through interviews (Du Plooy-Cilliers et al., 2019). Consequently, it was deemed an appropriate analytical method for this study. The coding of the data was aided by Atlas ti software which helps researchers group large amount of textual data into codes and things (Soratto et al., 2020). Using Atlas TI. comments and texts were classified into sequence that promotes understanding (Williams & Moser, 2022). Throughout the research process systematic data collection method was adhered to ensure the validity of the findings, member checking was also conducted were participants reviewed the findings to confirm accuracy and resonate with their experiences.

This meticulous approach to data analysis provided depth and rigor to the research process. The insights acquired from the data of offer valuable contributions to the understanding of the transition from traditional work to virtual work, highlighting the challenges and opportunities faced by SACAA employees. These findings contributed to a broader research domain by providing empirical evidence and nuance perspective on the impact of virtual work environment.

5.6 APPROACHES TO GUARANTEE TRUSTWORTHINESS

Ensuring trustworthiness, or rigour, in qualitative research necessitates adherence to best practice throughout the research process. This involves providing a detailed explanation of the methodology to establish an audit trail and reporting findings transparently (Johnson et al., 2020; Maher et al., 2018). As the primary instrument for data collection, the researcher must minimise personal biases that could influence the research process and outcomes, a task of a particular importance given the researchers position as an employee of SACAA (Johnson et al., 2020). Achieving trustworthiness involves meeting the criteria of confirmability, credibility, dependability, transferability and authenticity (Du Plooy Cilliers et al., 2019; Lincoln and Guba, 1985).

The following sections elaborate on how these criteria were addressed in the current study.

Confirmability ensures that the findings are shaped by the respondents and not by their researchers bias, confirming that the data accurately reflects the participants perspective (Lincoln & Guba, 1985; Du Plooy Cilliers et al., 2019) To achieve this, the researcher engaged in reflexivity continuously reflecting on personal biases as an employee of SACAA. And conducting member checking to. Validate participants view.

Credibility relates to the believability of the study findings, ensuring their accuracy represents the participants' experiences (Shenton 2004). This was ensured through prolonged engagements with participants, the interviews, member-checking, and the use of verbatim quotes to support the findings. (Du Plooy Cilliers et al., 2019 Lincoln & Guba, 1985)

Dependability involves the stability of data over time and conditions. Requiring detailed documentation of the research process (Lincoln & Guba, 1985). The study ensured dependability by providing comprehensive description of the research methodology supported by direct quotation from interviews to illustrate the consistency of the findings (Denzin and Lincoln, 2018).

Transferability refers to the extent to which the study findings can be applied to another context (Lincoln & Guba 1985; Creswell & Creswell, 2022). This was addressed by offering a rich, detailed description of the research setting, participants and procedures, enabling readers to determine the applicability of their findings in other contexts (Creswell and Creswell, 2022).

Authenticity emphasises the presentation of a range of perspectives, ensuring a genuine representative. Representation of participants views (Guba & Lincoln, 1989; Du Plooy Cilliers et al., 2019). That is, search and maintained objectivity in analysing and reporting the data, using probing questions to uncover diverse viewpoints and underlying motives (Dunbar, Burgoon, Chen, Wang, Ge, Huang, & Nunamaker, 2023).

Furthermore, informed consent was diligently obtained from the participants to minimise the potential influence of the study's bias. Throughout the research process, the study-maintained objectivity, ensuring a neutral stance. The comprehensive description of the research findings in the next chapter ensures that the data is readily available for secondary use as needed. This approach contributes to transparency and allows other researchers to build upon this study's findings.

The primary aim of this study was to investigate the perceptions and experiences of employees of transitioning from a Traditional to a Virtual workforce. The research utilised interviews as the primary data collection method to achieve this goal, enabling direct participant insights. The decision to employ interviews as the data collection method was well-considered and aligned with the study's overarching objectives, as outlined in Chapter 1. By engaging in one-on-one interviews, the research sought to delve deeply into the experiences, perspectives, and challenges faced by individuals during this significant organisational transition.

The interviews provided a wealth of valuable information, offering rich narratives and first-hand accounts of the realities of shifting from a traditional to a virtual work environment. The insights gained from the participants' candid responses enriched the research findings, enabling a comprehensive understanding of the intricacies and implications of the transition process.

Looking ahead, the insights from this research can serve as a foundation for future studies in related fields, fostering a deeper understanding of the evolving dynamics of work environments and the implications for employees and organisations alike. Ultimately, this study adds to the growing body of literature, addressing the complex and relevant topic of transitioning to a virtual workforce.

5.7 ETHICAL CONSIDERATIONS

Researchers are profoundly responsible for safeguarding the well-being of participants involved in a research study. This obligation assumes even greater significance within the context of qualitative research, particularly in the case of face-to-face interviews (Roshaidai & Arifin, 2018). Prior to commencing the research, stringent ethical protocols were diligently observed. This included obtaining an ethical clearance certificate from UNISA's Department of Human Resources Management Research and Ethics Committee. Additionally, explicit permission to conduct the research and utilise available data was obtained from the university under investigation.

Throughout the research process, several ethical issues were conscientiously addressed and given due consideration.

5.7.1 The principle of justice

The principle of justice encompasses the right to privacy, which grants participants the freedom to determine when, to what extent, and under what circumstances their private information can be shared or withheld from others. Privacy violations occur when information shared during interviews is disclosed without participants' consent (George, 2016). In this study, participants were never pressured to divulge information encroaching upon their privacy, and their privacy rights were respected. Furthermore, all information shared during interviews was confidential and not disclosed to unauthorised parties.

5.7.2 The Principle of Beneficence

The concept of beneficence, often summarised as 'doing good,' dictates that researchers must transparently explain the study's purpose, potential risks, and benefits to participants (Akaranga & Makau, 2016). Participants in this research were duly

informed of potential risks, with a particular focus on the challenge of maintaining confidentiality during focus-group discussions. All participants were requested to sign confidentiality agreements before participating to mitigate this risk. Although some participants, particularly interns with negative experiences, found it challenging to report such incidents, the study offered substantial benefits. This included knowledge sharing among current interns and valuable insights from mentors, former interns, and line managers to enhance the university's internship programme.

5.7.3 The Principle of Respect for Human Dignity

Informed consent is a cornerstone of ethical research, signifying voluntary participation based on a clear understanding of the study's purpose, methods, potential risks, and benefits (Creswell, 2015). Participants were granted informed consent forms outlining the study's objectives, methods, and potential consequences in the local language (English) to ensure comprehension. The forms also highlighted participants' right to withdraw from the study at any time. All participants provided written informed consent, and the study's funding source, UNISA, was transparently disclosed. Compliance with informed consent requirements ensured the ethical conduct of this study.

5.7.4 Deception

From an ethical standpoint, researchers are obligated to communicate the research's objectives and intentions to participants transparently. In this study, all participants received detailed information about the research's purpose and objectives when invited to participate. They willingly and freely agreed to participate with full knowledge of what was expected. Deception, often driven by vested interests, did not apply in this study, as the research aimed solely to improve the internship programme.

5.7.5 Anonymity and Confidentiality

Anonymity and confidentiality were meticulously maintained throughout the study. Anonymity ensures that participants' identities remain undisclosed (Creswell, 2015), which was achieved by excluding names from interview guides and response sheets. While anonymity was upheld for individual interviews, it could not be guaranteed during focus-group discussions. To ensure confidentiality, participants signed confidentiality agreements before interviews, agreeing to safeguard identifiable information. Data were securely stored, accessible only to the study and transcriber, with typed notes stored in

password-protected documents to prevent unauthorised access. Data will be retained for five years and subsequently destroyed to safeguard participant confidentiality further.

5.7.6 Accuracy

To ensure accuracy, data were accurately represented to reflect the study's results (Connelly, 2016). Information shared with participants was clear and free of technical or scientific jargon. Rigorous steps were taken to ensure data accuracy, including careful participant selection, employing multiple data collection methods, and engaging a professional data analyst for the study. These measures collectively upheld the standard of accuracy in the research process.

5.8 CHAPTER SUMMARY

The selected research methodology has proven instrumental in enabling a thorough investigation into the effectiveness and areas for enhancement within the SACAA's shift from a traditional to a virtual workforce. Including a diverse array of participants, including executive managers, senior managers, operational managers, technical specialists, and support staff, provided a well-rounded and comprehensive spectrum of perspectives. The intentional integration of various data collection methods strengthened the precision of the gathered data and contributed to robust and nuanced research findings. The study's commitment to ethical considerations additionally served to bolster the credibility and reliability of the study's outcomes. In essence, this signifies the conclusion of the discourse on the research methodology. The subsequent chapter will intricately explore the data analysis, comprehensively presenting the study's findings and recommendations.

CHAPTER 6

DATA ANALYSIS AND PRESENTATION OF RESULTS

6.1 INTRODUCTION

This chapter offers a comprehensive overview of the results derived from the data analysis, shedding light on the effect of the transition from a traditional to a virtual work environment at SACAA. The information gathered in this chapter serves as a canvas, effectively illustrating how SACAA's staff has adapted to their new way of working.

To ensure a holistic understanding, the study made use of a tailored set of questions for various participant groups. These questions were designed for both management and operational employees. Consequently, this chapter amalgamates the results of interviews with similar themes, creating a cohesive narrative that provides enriched insights. The data collection method primarily consisted of semi-structured face-to-face interviews.

The findings are structured into different thematic subsections, each accompanied by pertinent interview citations. The first section of this chapter delves into the biographies of the study participants, providing context before delving into the results of the data analysis. An exploration of the participants' backgrounds offers a rich tapestry of experiences and perspectives that contribute to a comprehensive understanding of the transition from traditional to virtual work at SACAA. With these biographical insights, the discussion is aligned with the following objectives:

Literature study

- To conceptualise traditional office work.
- To conceptualise virtual work.
- To determine the demands and requirements the aviation industry poses on virtual work practices within organisational settings.
- To formulate theoretical recommendations for SACAA to effectively integrate and optimise virtual work practices, considering the organisation's specific operational needs and the regulatory environment within the aviation industry.

Empirical study

- To investigate the factors influencing the transition from traditional office setups to virtual work environments within SACAA.
- To determine how employees perceive and adapt to the shift from traditional office work to virtual work arrangements at SACAA.
- To determine the organisational challenges encountered during the transition process from traditional to virtual office settings within SACAA.
- To recommend evidence-based strategies and best practices for SACAA to facilitate a smooth and effective transition from traditional to virtual office environments.
- To provide guidelines on how SACAA can ensure the successful implementation and long-term sustainability of virtual work practices post-transition.

By aligning the findings with these objectives, the research presents a holistic view of the transition to virtual work at SACAA, rooted in the biographies of the diverse participants. Through their unique perspectives and experiences, the study provided insights into the challenges and triumphs encountered during this transformative journey.

6.2 GENERAL GRAPHIC ILLUSTRATION OF PARTICIPANTS IN AND INDIVIDUAL INTERVIEWS

Diversity within the participant sample is a cornerstone of this study, profoundly elevating its credibility and representativeness. This section delineates the critical characteristics of the participants, offering a comprehensive view of the diverse group contributing to the research. The study participants encompass a broad spectrum of roles and age groups, each bringing their unique perspectives to the study. The participant demographics are as follows:

- Executive Managers (n=4): This group comprises four individuals, one male and three females, ages 40 to 59.
- Senior Managers (n=3): This category consisted of three senior managers, two males and one female, all within the 45- to 59-year age range.
- Operational Management (n=4): This group included four males aged 35 to 50.

- Quality Specialist (n=1): A female quality specialist aged between 40 and 45.
- Project Specialist (n=1): A male project specialist aged between 30 and 35.
- ICAO Specialist (n=1): A male ICAO specialist aged between 45 and 50.
- IT Specialist (n=1): A female IT specialist aged between 25 and 30.
- Inspectors (n=7): This group comprised four males and three females, ages 25 to 50.
- Support Employees (n = 3): The support employees cohort consisted of two females and one male, aged between 30 and 40.

In terms of gender distribution, the participant pool included 14 males and 11 females, fostering a balanced representation. Notably, although the majority of participants were black, here was some racial diversity in the sample with three white participants included in the total amongst the total of 25 participants. This distribution was purposefully determined based on the positions held by the participants. Furthermore, the participants exhibited linguistic diversity, with most being fluent in English while also possessing proficiency in various South African official languages such as Zulu, Xhosa, Afrikaans, Setswana, Sepedi, and Tsonga, reflecting the rich cultural tapestry of the region.

Table 6.1 presents the biographical characteristics of individual interviewees involved in this study. These characteristics provide insights into the demographic composition of the participants, offering a snapshot of the diversity within the sample. Understanding these profiles is crucial for contextualising the perspectives shared and the insights gained regarding the transition from traditional to virtual office environments within SACAA, particularly from employees based in Gauteng.

Table 6.1 Biographical characteristics of individual interviewees

NO	Occupation	Gender	Race	Age	Division/Department
1.	Executive	Male	White	59	Air Safety Infrastructure
2.	Executive	Female	Black	53	Legal and Aviation Compliance
3.	Executive	Female	Black	51	Human Resources
4.	Executive	Female	Black	48	Corporate Services
5.	Senior Manager	Male	Black	42	Airworthiness

6.	Senior Manager	Female	White	39	Consistency and Standardisation
7.	Senior Manager	Male	Black	48	Flight Operation
8.	Manager	Male	Black	55	Aviation Security
9.	Manager	Male	Coloured	35	Aviation Security
10.	Manager	Male	Black	42	Legal and Aviation Compliance
11.	Manager	Male	Black	37	Flight Operation
12.	Inspector	Female	Coloured	28	General Aviation
13.	Inspector	Male	Black	29	Aviation Security
14.	Inspector	Male	Indian	37	Flight Operation
15.	Inspector	Male	Black	42	Flight Operation
16.	Inspector	Female	Indian	33	Aviation Security
17.	Inspector	Male	Black	50	Airworthiness
18.	Inspector	Female	Black	40	Airworthiness
19.	IT Specialist	Female	Black	28	Information and Communication Technology
20.	Quality Assurance Specialist	Female	Black	44	Risk and Compliance
21.	ICAO Specialist	Male	Black	47	Legal and Aviation Compliance
22.	Projects Specialist	Male	Black	28	Risk and Compliant
23.	Inspector	Male	Black	29	Aviation Security
24.	Quality Specialist	Female	Black	45	Risk and Compliance
25.	Administrator	Male	Black	39	Corporate Services

The richness of diversity within the participant group serves as a cornerstone, not only enhancing the study's credibility but also guaranteeing a comprehensive and balanced exploration of the transition to virtual work at SACAA from a multitude of perspectives. By encompassing a wide range of roles, responsibilities, and experiences, this diverse participant group provides a nuanced understanding of the intricacies involved in the organisational shift to a virtual work environment.

6.3 THE MAIN THEMES

The information obtained from the face-to-face semi-structured interviews revealed the following key themes:

Theme 1: Experience and perception of a virtual office:

Theme 2: Communication and collaboration

Theme 3: Productivity and work-life balance

Theme 4: Technical infrastructure and support:

Theme 5: Training and adaptation

6.3.1 Experience And Perception of Virtual Office

The significant changes in employee experience and perception of virtual offices, particularly during and after the COVID-19 pandemic. The shift to virtual work has necessitated new strategies for engagement, productivity, and maintaining work-life balance (Hernández-Ortega, 2022; Pennington et al., 2022). These studies explore how employees have adapted to virtual work environments and the various psychological and social impacts. This theme delves into participants' experiences and perceptions of the virtual office environment. It explores their sentiments, attitudes, and overall impressions of working in a virtual setting. The questions below were asked during the face-to-face interviews:

- In your view, what are the main challenges posed by traditional office setups in adapting to changing organisational needs and dynamics?
- Can you elaborate on the key aspects of traditional office work that have been identified as relevant to organisational effectiveness and efficiency?

This resulted in five subthemes emerging from theme 1.

Subtheme 1.1 - Perceived and experienced challenges:

Subtheme 1.2 - Addressing and overcoming challenges:

Subtheme 1.3 - Mitigating strategies and initiatives:

Subtheme 1.4 - Observed advantages of virtual office implementation:

Subtheme 1.5 - Impact of advantages on organisation and employees:

Note: Participants' responses in this study are presented verbatim and marked by their respective positions. Responses are italicised for clarity and transparency.

▪ Perceived and Experienced Challenges

The study's findings illuminated a notable challenge faced by SACAA employees during their virtual work arrangements. Specifically, participants expressed a sense of loss regarding the spontaneous access to their colleagues' advice and expertise that they previously enjoyed through casual office interactions. This valuable source of information and collaboration became less accessible in the virtual setting.

I found that I couldn't simply turn to a colleague, ask a question, and receive an immediate response. This had a noticeable impact on my efficiency, as I often had to wait for online responses from colleagues in order to complete the tasks I was working on, which, in turn, affected my productivity.

(Inspector)

Additionally, it was observed that technical employees encountered difficulties in accessing certain compliance materials from external stakeholders, including but not limited to displayed operations certificates. This limitation impacted their ability to carry out their responsibilities effectively in a virtual work environment. Below is a quotation from one of the employees that articulated this perspective:

SACAA's technical employees diligently established comprehensive procedures to enable stakeholders to demonstrate compliance virtually. However, as lockdown restrictions were lifted, it was discovered that some clients did not have in place what they had previously confirmed virtually, raising discrepancies between the virtual claims and the actual compliance status.

(Inspector)

Load shedding emerged as another prominent challenge, with results indicating that employees harboured concerns about potential data loss during offsite work due to interruptions caused by load shedding. This electricity supply issue raised concerns about the reliability of virtual work conditions and data safety during such events. Below is a quotation from one of the employees that articulated this perspective:

At the outset, I diligently maintained a productive morning routine. I would wake up early, take a refreshing walk, and see to the kids' school drop-off. However, as time

passed and load shedding began to disrupt virtual work, my routine shifted. It evolved into a scenario where I had to wake up merely an hour before starting work, hoping for an uninterrupted day once my laptop was finally up and running.

(Quality specialist)

▪ **Addressing and Overcoming Challenges**

One of the foremost challenges the interviews underscored was establishing and sustaining trust within a virtual work setting. Recognised as a pivotal element for operational efficiency and the cultivation of robust employee relationships, trust encounters notable challenges in virtual teams. These challenges stem from the perceived difficulty in achieving a satisfactory level of trust within an environment where individuals often feel disconnected, relying on online tools for communication.

A prevailing perspective among employees regarding nurturing trust within virtual teams emphasises the significance of cultivating an open and vulnerable environment. This perspective highlights the crucial role of such an atmosphere in demonstrating trust. As articulated by one manager, this approach addresses the unique dynamics of virtual collaboration. It contributes to overcoming the challenges of building trust in a primarily online-mediated communication environment.

I have consistently adopted a hands-off approach with my team, refraining from micromanaging. However, when we transitioned to a virtual workforce, I was unprepared and unequipped to navigate the associated challenges. Notably, I observed emerging patterns where certain employees provided excuses for missing meetings, became unresponsive, and, in some instances, falsely claimed to have completed tasks that were left undone. This not only resulted in a breach of the trust we previously had in the traditional workforce but also adversely impacted the honest employees. Consequently, I had to implement more stringent management strategies to ensure the completion of tasks and maintain accountability in the virtual work setting.

(Operational manager)

Several employees underscored the importance of constructing trust through a thorough comprehension of the activities and contributions of team members. In this regard, effective communication and regular updates were highlighted as pivotal factors

for establishing and sustaining trust among team members, as articulated by one manager:

I believe in keeping everyone well-informed about what's happening. Whether it's company structure changes or high-level developments, I make it a point to keep everyone in the loop. I think information and communication have become even more vital in our current situation, where everyone is working virtually and might already feel isolated or disconnected.

(Executive manager)

▪ **Mitigating Strategies and Initiatives**

Participants shared information about specific strategies, policies, or initiatives that were implemented to alleviate the challenges encountered during the transition. It was also noted that the virtual home office provides flexibility in terms of geographical location and allows for greater control over scheduling workdays. Below is a quotation from one of the employees that articulated this perspective:

I've found that the virtual setup offers more flexibility for project work. I can choose to work early in the morning or in the evening, after 5. It's been a noticeable shift because, although I'm putting in the same hours, the setup allows me to find pockets of time during the day when I'm most productive for different tasks.

(Project Specialist)

SACAA established a robust framework of internal policies and procedures designed to provide clear guidance to its employees on virtual work practices and the expected conduct during virtual work. Additionally, the organisation developed technical guidance materials aimed at facilitating a smooth transition to virtual interactions and applications for its clients. Furthermore, it is worth noting that the SACAA website plays a pivotal role as a highly significant communication tool, serving as a vital means of interaction and information dissemination to both internal and external stakeholders.

Below is a quotation from one of the employees that articulated this perspective:

Our website has been an effective communication tool since SACAA has implemented virtual work, the information that is shared on this platform keeps you up to date with what is happening in the organisation. The procedures that were developed for virtual work have clear service level agreements which assists one to plan.

(Inspector)

Another employee pointed out that the flexibility to take breaks and return refreshed significantly enhances productivity. They mentioned,

I also really like that if I am feeling tired, I can take a quick walk around the block and clear my head mentally. Then, I can come back refreshed. That's probably good for productivity as well.

(Inspector)

▪ **Observed Advantages of Virtual Office Implementation**

Various advantages emerged following the implementation of the virtual office setup within the South African Civil Aviation Authority. While adopting the virtual workplace presents its share of challenges, it also brings numerous advantages. The study's findings reveal that the primary benefits of virtual teams include the flexibility they offer and the reduction of in-office distractions. In terms of flexibility and freedom, virtual teamwork provides significant advantages. It allows for adjusting workdays and hours, improving work performance, and providing location independence. Many employees emphasised the benefits of working from anywhere they choose. As one employee mentioned,

On the other hand, it's quite liberating to have the flexibility to work from virtually anywhere, like a cosy coffee shop, whenever we please. This newfound freedom to carry out our tasks, regardless of location, has been advantageous. It's all about the ability to take your work with you, no matter where life takes you...

(Inspector)

Employees noted that the freedom they have when working from home also results in more time to do other activities, which also improves the quality of life:

I like that I have more time for things that I did not have time to before, and what I mean by that is like life-admin, like when I was working in my old job that was always face-to-face, you know you are always behind on things like laundry. You come home and don't have any energy to cook dinner; you are drained just from going there and back, whereas here I feel like with virtual life, I have a lot better quality of life in a way, like personally.

(Administrator)

Further, most employees drew particular attention to the elimination of time spent commuting and travelling, which they are now able to use the time to work longer hours:

I prefer it over going to the office just because I can very easily get to work and don't have to spend time on a commute, commute about an hour and 30 minutes each way. So, working from home, I can use that time to work. But simultaneously, I see that I am working more because of that.

(Inspector)

▪ **Impact of Advantages on Organisation and Employees**

Participants provided insights into how these observed advantages had a tangible impact on the organisation, its workforce, and its overall operational dynamics. Acknowledging that the new virtual workplace environment has empowered team members with greater freedom to tailor their workdays to suit their individual needs is essential. Specifically, the transition to virtual work has necessitated that employees structure and manage their workdays more deliberately to maintain focus. One employee explained that most preferred working independently, even in collaborative projects.

My typical approach is to define responsibilities and ownership, divide tasks, and then work on them individually.

(Operational manager)

Additionally, an employee highlighted that when working from home, there is more uninterrupted time to concentrate on individual responsibilities. The employee mentioned,

As a manager or leader, it's easy to become preoccupied with the team's needs and where they require assistance. Often, your tasks take a backseat until it's 4 o'clock and everyone else has left for the day. However, this dynamic improves when working from home, allowing for greater focus on individual responsibilities.

(Senior manager)

Several employees shared common perspectives on developing routines and effective time management. One employee expressed this by saying,

But I had to be more structured and organise my time at home because it was easier to get distracted by other things. However, for some, this shift towards structuring their days presented challenges, requiring heightened self-discipline and the creation of clear physical boundaries to demarcate work from personal life.

(Inspector)

For instance, an employee who shares their living space with a partner explained,

It has to do with discipline and returning to your original tasks. My partner and I work from home, so we had to establish a dynamic. The rule now is that he cannot disturb me if I have my headphones on.

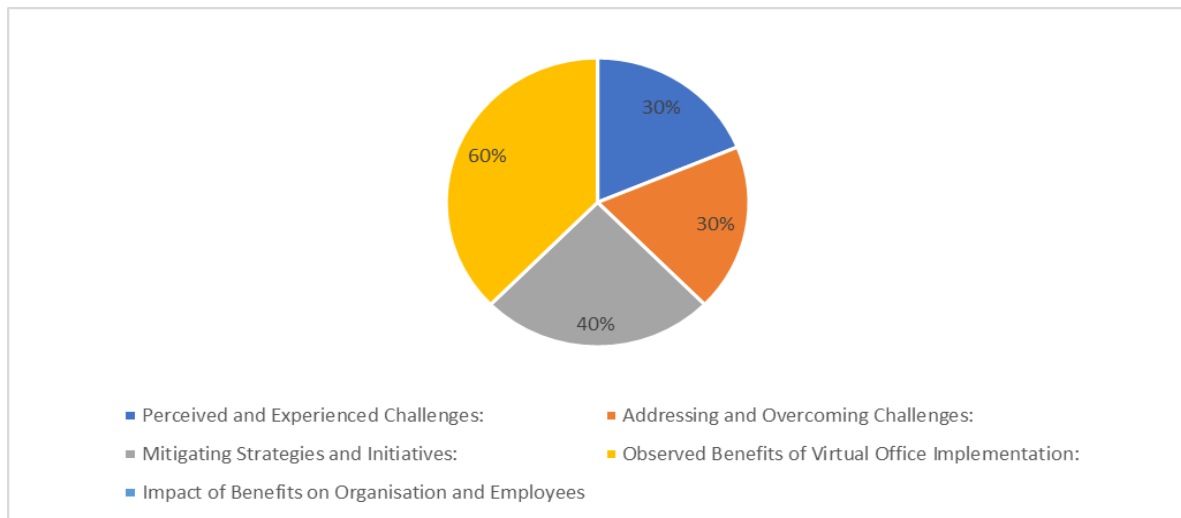
(Administrator)

As employees seek to differentiate their working hours from personal time, many have set specific time boundaries, mirroring their typical office hours. One employee noted.

What mostly changed is that I am stricter with my time at work. At 12, I take lunch; it's marked down, or if I'm running a bit late, I ensure I take the full hour.

(IT Specialist)

Figure 6.1 illustrates the experiences and perceptions of employees at SACAA regarding the virtual office environment.

Figure 6.1 Experience and perception of virtual office

6.3.2 Communication And Collaboration

Effective communication and collaboration in virtual teams require robust digital tools and clear protocols. Research highlights the importance of structured communication strategies and the role of technology in facilitating virtual teamwork (Díaz et al., 2023; Anthony-McMann et al., 2023). These studies discuss how virtual collaboration tools and practices influence team cohesion and productivity.

The nature of virtual work necessitates an exploration of the nuanced differences in communication styles. This study undertook an assessment and in-depth analysis of virtual communication behaviours, considering key dimensions such as frequency, interactivity, and the degree of openness in these interactions. Regarding the communication tools at their disposal, teams within the organisation leveraged various platforms, including MS Teams, SACAA SharePoint, email, telephone, and automated systems like EBS and Shanduka for internal communication, each chosen depending on the specific communication's purpose and context.

The question below was asked during the face-to-face interviews:

- How do these virtual work challenges impact various aspects of organisational functioning, such as communication, collaboration, and task coordination?

The inquiry in question gave rise to the emergence of the following insightful subthemes:

Subtheme 1.1 Effective communication strategies

Subtheme 1.2 Cross-functional Collaboration

Subtheme 1.3 Virtual collaboration.

Subtheme 1.4 Teamwork and Team building

Subtheme 1.5 Communication Skills Development

Subtheme 1.6 Detailed task instructions

▪ **Effective Communication Strategies**

The findings unveiled a prevailing pattern among interviewees, with the majority engaging in daily communication with their team members. Significantly, the study highlighted the pivotal role of MS Teams as the primary channel through which these daily interactions took place. This insight underscores the central importance of MS Teams in facilitating real-time, interactive communication within the virtual work environment, reflecting its significance as a cornerstone tool in promoting effective teamwork and collaboration.

The dynamics of virtual teams necessitated a closer examination of differences in communication styles. Specifically, the study assessed and analysed virtual communication behaviours concerning their frequency, interactiveness, and degree of openness. The findings underscore that most interviewees communicate daily with their team members, primarily relying on communication platforms like MS Teams, email, and telephone. Several employees shared their insights on communication preferences. They observed that verbal communication during video conferences is less time-consuming than written exchanges via email. Verbal communication is favoured, especially when immediate answers are required. One employee noted,

There are many spur-of-the-moment meetings where we would jump on a video call to discuss something. Sometimes, it's easier to have a video call and talk.

(IT specialist)

▪ **Cross-functional Collaboration**

Furthermore, employees highlighted a notable contrast in response times between written messages and in-person enquiries. They underscored that face-to-face

questions typically yield immediate responses, rendering them more sensible and efficient, especially when contrasted with the time invested in crafting comprehensive written replies. Consequently, employees firmly believe that written communication mitigates misunderstandings and enhances seamless collaboration with other employees. It provides clarity, as messages are documented and readily accessible within the virtual workspace where most conversations occur. Notably, the ability to easily download transcripts of recorded meetings adds to the advantages of written communication in the workplace. As one employee stated,

In some ways, there's more emphasis on written communication now than before. This reduces the chances of misunderstanding, as everything is clearer, and we have a written record of our agreements.

(Senior manager)

In terms of satisfaction with communication frequency, employees expressed overall contentment. However, some noted that an increase in virtual meetings can lead to less available time for focused work. One employee shared,

I feel that our morning meeting is sufficient. I still need time to complete my tasks, so more check-ins would disrupt my workday.

(Inspector)

Additionally, an employee mentioned less satisfactory communication frequency, citing limited social interactions and a lack of relationship-oriented communication content. The employee commented,

We meet as a team three times a week, which isn't frequent enough to build strong connections. When we do meet, it's primarily for work-related discussions. Smaller details and personal interactions are lacking.

(Operational manager)

▪ **Virtual Collaboration**

Virtual collaboration involves examining the challenges and advantages of virtual collaboration, including using digital tools and platforms. It is also crucial to recognise

that employees experienced variations in interactiveness during virtual collaboration. Most found it challenging to interpret body language and facial expressions over screens. One employee noted,

You don't have the same social cues—sounds or physical indications of questions or emotions. It's challenging to discern them through video calls.

(Operational manager)

Employees also pointed out that virtual interactions can make it easier to mask emotions and hide true feelings. In contrast to face-to-face interactions, where body language often reveals emotions, the virtual format allows for a degree of emotional masking, potentially leading to misinterpretations. Consequently, some employees struggled with accurately gauging how others were faring emotionally. One employee highlighted the challenge of assessing the well-being of team members without seeing them throughout the day. They noted that physical presence in the workplace provides valuable cues regarding colleagues' state of mind and potential concerns.

In virtual work it is tough for us as employees to gauge our teammates' state of mind as we do not see each other every day. When we're physically at work, it helps because you can easily just walk to somebody's desk and check on them.

(Senior manager)

To some extent, video meetings helped bridge the gap by adding sentiment and expressions to the conversation. Some employees found that video meetings facilitated understanding emotions and detecting signs of distress. However, this form of communication still falls short of replicating the nuances of in-person interactions.

Even though video meetings have been implemented, they're just not the same as sitting across someone in the boardroom and interacting with them. Though you are able to see your colleagues through the monitor. It's just not the same as being at the office.

(Senior manager)

The study also revealed that most team members preferred to keep their cameras on during virtual meetings, which enhanced engagement, understanding, and visibility of each other's reactions. However, it also raised challenges, as some found it difficult to decide when to contribute to discussions due to lags in communication.

In most of our meetings my team does not mind putting the video. When the video is on people participate less. I'm not sure whether it's due to the fact that they feel that someone is watching them constantly as they speak. However, it's gotten better as we are getting used to the virtual setup.

(Operational manager)

Because of the limitations of virtual collaboration, employees reported that interruptions became more prevalent. Technical issues, delays between speaking and hearing, and interruptions were observed during some virtual meetings, impacting the flow of communication. One employee remarked,

Timing your comments in virtual meetings can be challenging due to slight delays. Suddenly, two people speak at once, creating confusion.

(Operational manager)

The employer keenly observed a remarkable enhancement in collaboration across various sites. This transformation can be attributed to the transition into virtual workspaces, which fostered a newfound sense of unity and equitable opportunities among team members. Consequently, this novel working approach yielded significantly superior outcomes compared to the previous setup, underscoring the synergy achieved by integrating MS Teams into the workflow for virtual work.

In essence, this integration created a dynamic where the combined efforts of using MS Teams and dealing with international assignments resulted in greater overall value than when these components were approached separately. Consequently, this synergy rendered it far more enticing to harness the advantages of these routines and activities

when they are interconnected, as opposed to when they are treated as distinct entities. As one team member articulated,

All of our colleagues are scattered across different locations. If you're not situated in a central office, you are more included in the collaborative process today than ever before. From this perspective, our current setup operates more efficiently, providing an equal platform for all to voice their thoughts. It truly offers equal conditions for all.

(Operational manager)

▪ **Teamwork and Team building**

Teamwork and team building involve evaluating the pivotal role of teamwork and the impact of team-building activities in cultivating enhanced collaboration among team members. However, others found it challenging to contribute freely due to audio conferencing technology and equipment issues. The process of unmuting the microphone and participating in discussions was perceived as cumbersome, discouraging some employees from sharing their input.

You give your input less frequently because unmuting yourself and interjecting is cumbersome. It's easier in person, where you can read the conversation better and know when to contribute,' one employee explained.

(Inspector)

Consequently, employees perceived a decreased likelihood of contributing during larger virtual meetings, where it was also less noticeable if they remained silent. Most information dissemination from the employer to the employees has primarily followed the same principles as before, albeit with a digital transformation. However, there has been an increase in the use of informational videos and email communications to expand the flow of information to employees. This approach aims to nurture a stronger sense of organisational unity and belonging among the workforces. As one employee stated,

We've developed our information channels within the organisation, incorporating recorded videos, and our traditional physical information meetings have transitioned into digital gatherings. This shift is driven by our sincere desire to cultivate a sense of

belonging within the organisation. We want every member to feel like an integral part of our collective mission truly.

(Executive manager)

▪ **Communication Skills Development**

Communication Skills Development represents a holistic endeavour to enhance an individual's proficiency in transmitting and effectively transmitting and receiving information, concepts, and messages. This encompasses refining various communication skills and techniques, augmenting one's prowess in articulating thoughts clearly, engaging in active listening, and fostering constructive interactions with peers.

SACAA has reaffirmed its commitment to this initiative by implementing specialised training programmes for employees transitioning to a virtual office environment. The goal was to enhance their employees' proficiency in effective communication within virtual settings. Through strategic investments in comprehensive training sessions and workshops, SACAA has equipped its employees with the necessary skills to navigate the virtual environment adeptly and effectively utilise the tools of their trade to execute tasks. An employee stated during the interview,

I found it nerve-racking when we were initially expected to utilise all our automated systems to their fullest extent during the lockdown. SACAA demonstrated a strong commitment to training its employees, ensuring they were well-equipped to harness these tools effectively in the virtual workspace. I must admit that I was initially apprehensive about learning new technologies, but now I'm reaping the benefits of a virtual workforce with ease.

(Inspector)

▪ **Detailed Task Instructions**

A comprehensive breakdown of detailed task instructions within SACAA's virtual environment involves providing thorough and clear guidance to employees, ensuring they possess the necessary information to complete tasks effectively. SACAA initiated this process by summarising the purpose and significance of functions across all departments, outlining expected outcomes to give employees a clear understanding of

desired results. The scope of each task is then clearly defined, specifying inclusions and exclusions to set boundaries and help employees understand their responsibilities. Tasks are broken down into detailed, step-by-step instructions presented chronologically to guide employees through the process. These instructions include specific procedures, methodologies, or guidelines to be followed during task execution.

Moreover, SACAA acknowledges the importance of identifying dependencies that may impact task progress, emphasising tasks or activities that must be completed before or concurrently with the current assignment. Expectations for final deliverables and expectations for accuracy, completeness, and adherence to quality assurance guidelines are clearly outlined. SACAA established deadlines for task completion, providing information on intermediate deadlines for specific milestones within each task.

As a manager, I find it commendable that SACAA has formulated comprehensive guidelines for the virtual workforce. All tasks are articulated, ensuring employees are well-informed about expectations and held accountable through documented service-level agreements. This structured approach guarantees the timely completion of tasks. Managing a virtual team becomes notably more manageable under these well-defined guidelines. Although these protocols were not in place when the challenges of COVID emerged, SACAA has prioritised ongoing enhancements to optimise our operations in this evolving virtual work environment.

(Senior manager)

SACAA communicated the process for task review and feedback to ensure accountability and facilitate effective communication. This includes specifying designated review periods or checkpoints for input and revisions. By seamlessly incorporating these elements into detailed task instructions, SACAA minimises the need for queries and equips employees with a comprehensive guide, fostering successful task completion in the virtual environment. Several employees also highlighted that they get more time to finish their tasks through detailed task instructions and can manage their performance.

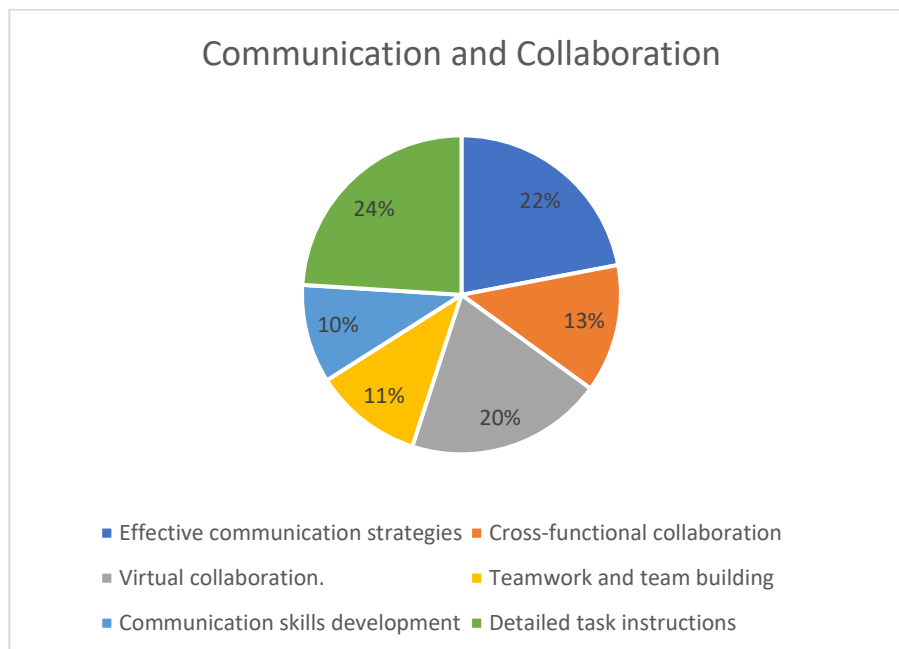
Working from home affords me additional time to complete tasks quickly and efficiently. The clarity provided by these SACAA guidelines has transformed my performance

management experience, particularly during reviews with my manager. With precise expectations and timelines outlined, I can manage my performance effectively, enabling me to meet and exceed expectations. This proactive approach directly influences my performance appraisal, as we understand that exemplary performance in the organisation translates to rewarding compensations and recognition.

(Inspector)

Figure 6.2 illustrates communication and collaboration of employees at SACAA regarding the virtual office environment.

Figure 6.2 Communication and Collaboration



6.3.3 Productivity And Work-life Balance

The shift to virtual work has significantly impacted productivity and work-life balance. Studies indicate mixed effects on productivity, with some employees thriving while others struggle due to blurred boundaries between work and home life (Chen et al., 2021; Belzunegui-Eraso & Erro-Garcés, 2020). These studies provide insights into the factors that influence productivity and the strategies that can help maintain a healthy work-life balance in virtual settings

The question outlined below was posed during the face-to-face interviews:

- Can you elaborate on the key aspects of traditional office work that have been identified as relevant to organisational effectiveness and efficiency?

One of the senior managers at SACAA highlighted key aspects of traditional office work, emphasising the importance of face-to-face interactions, immediate feedback, and the sense of community these environments foster.

In a traditional office setting, managers have the advantage of more easily supervising and providing immediate feedback to employees. This direct oversight ensures that tasks are completed efficiently and according to organisational standards. It also fosters a sense of accountability among employees, which is crucial for maintaining high performance levels.

(Senior manager)

An operational manager highlighted the importance of interactions in the traditional work environment, stating that these interactions are crucial for fostering a sense of belonging among teams.

Traditional office environments facilitate regular in-person interactions, company events, and social gatherings. These activities contribute significantly to a sense of belonging and engagement among employees, enhancing overall job satisfaction and productivity. The opportunities for spontaneous collaboration and team bonding in a traditional office are invaluable for building a cohesive and motivated workforce.

(Operational manager)

Additionally, an employee mentioned that the traditional office setting allows for instant collaboration, which greatly enhances problem-solving and team dynamics

One of the great things about the traditional office is the regular face-to-face interactions with my colleagues we are all a big family. Being around my colleagues is helpful for me and makes me feel like I belong. The chance for spontaneous collaboration and team bonding in a traditional office setting is invaluable for building a cohesive and motivated team at SACAA."

(Administrator)

This resulted in subthemes emerging from this theme.

Subtheme 1.1 - Work-life integration

Subtheme 1.2 - Virtual meetings

Subtheme 1.3 - Workplace policies and support

Subtheme 1.4 - Flexible work arrangements

Subtheme 1.5 - Employee Well-being Programmes

Subtheme 1.6 - Managerial roles

▪ **Work-life Integration**

One of the focus points of this study revolves around the delicate equilibrium between work and life and the substantial challenges it presents to employees within SACAA. The importance of upholding a robust work-life balance cannot be emphasised enough, as it profoundly influences employee well-being, health, productivity, and overall performance. However, when investigating whether this equilibrium can be consistently achieved, it becomes apparent that it remains a challenging objective for most teams. The lack of well-defined boundaries between professional and personal life emerges as a formidable impediment, undermining the sustenance of motivation. As one employee stated,

The experience of heading to an office and feeling like you are embarking on a productive workday is markedly different from the sense of perpetual home confinement. Previously, occasional work-from-home arrangements were manageable, but the motivating work mindset seems elusive with the perpetual blending of work and living spaces. It's challenging to feel like you are at work even when physically there.

(Inspector)

Several employees underscored that the lack of dedicated workspaces within their homes hinders achieving a work-life balance. One employee stated:

One of the drawbacks of working from home is that my living space is rather compact. The physical proximity between my workspace and dining area and my relaxation spot after work is merely a few metres apart.

(Inspector)

Moreover, one employee highlighted that the absence of a separate office space disrupts their daily routine:

My main challenge is sharing the same space for both work and living. Ideally, I'd prefer an external workspace or a co-working facility. I live close to the office, and commuting to the office and back home plays a crucial role in setting a productive routine for me.

(Inspector)

In the current virtual work landscape, employees not only grapple with work-life segregation but also contend with blending days, making it arduous to sustain motivation. One employee stated,

The days seem to melt into one another, and this monotony makes life less stimulating. Paradoxically, despite having more time, I've become less motivated to engage in physical activities. After working from home for an extended period, the days seem to blend.

(Operational manager)

Moreover, a participant noted that the unchanging routine and limited variety in surroundings had taken a toll not just on motivation but also on efficiency and creativity:

Every day feels like a replay of the last. There's no variation in the scenery. This persistent monotony has certainly hindered both my productivity and creative thinking.

(Inspector)

One employee raised concerns about succumbing to stir-craziness due to prolonged confinement. The familiarity of home distractions often becomes an irresistible temptation, further blurring the lines between personal life and work. This phenomenon makes it exceptionally challenging to maintain focus and discipline, as the allure of non-work-related activities frequently beckons.

You might think, "I'll just step out for a brief walk to get some fresh air," but before you know it, a couple of hours have slipped away.

(Inspector)

The need for a change of scenery and fresh air can exert a powerful pull, leading to unexpected breaks and diversions from work tasks.

- **Virtual Meetings**

Meetings emerged as another crucial facet of the employees' work procedures, with a noticeable evolution in their ability to manage and plan these meetings effectively within virtual settings. Initially, as employees transitioned into virtual workspaces, there was a notable influx of meetings, leading employees to feel overwhelmed. The sheer volume of meetings became a hindrance, impeding their ability to focus on their tasks. However, with time, employees learned to discern which meetings were essential and which could be reduced or eliminated. One employee encapsulated this transformation as follows,

We saw a surge in meetings, especially in the initial phase... I believe it happened because we tried to replicate every in-person interaction we used to have at the physical office with virtual meetings. This left us with very little time for our actual work. However, we soon recognised the need for change, and now we hold fewer, more purposeful meetings, eliminating the unnecessary ones.

(Inspector)

The expanded physical distance brought about a noteworthy trend in virtual team meetings, particularly in the initial stages. These meetings occasionally meandered among topics, reflecting a certain degree of social interaction among team members, reminiscent of casual office conversations. One employee articulated the significance of this dynamic, noting,

Sometimes our morning meetings stretch to 45 minutes because we engage in non-work-related discussions. But I believe it's essential because people crave that social interaction they used to have.

(Inspector)

Conversely, meetings adopted a more structured and time-bound approach for others, with minimal small talk. An employee exemplified this by stating,

Our meetings tend to be highly organised, focusing on efficiency and adhering to predetermined agendas.

(Inspector)

This practice demonstrates that meetings commencing with a well-defined agenda and maintaining focus rarely extend beyond the scheduled duration. In such cases, any non-work-related communication among team members was typically concise, lasting only a few minutes before returning to the primary agenda.

- **Workplace Policies and Support**

When SACAA recognised the challenges and inefficiencies of transitioning to virtual work without implementing procedures and policies to support employees and clients, all departments had to develop or revise their standard procedures to align with virtual work. The organisation also created technical guidance manuals to assist aviation operations and compliance during and after lockdown. Many interviewees noted that difficulties were resolved more efficiently after the policy implementation, ultimately enhancing their work efficiency.

We introduced a procedure called 'COVID Procedure' to guide stakeholders on engaging with the organisation during the South African government's lockdown restrictions. This gave me a great sense of assurance, knowing that I had clear guidance from my organisation, and my clients knew how to reach me.

(Inspector)

These newfound insights, improved communication coordination, and increased accessibility, were cited as contributors to heightened efficiency. Participants noted, People are more reachable now, resulting in quicker responses when assistance is needed. This, in turn, facilitates faster problem-solving and task completion compared to the traditional setting, where resources were more segmented and challenging to integrate.

Contacting colleagues through MS Teams is much simpler than in the office. If you encounter an issue and require assistance, it's easier to reach out, resolving problems promptly and enhancing productivity.

(Inspector)

Meetings also underwent significant changes due to SACAA's procedures and guidance. Initially, during the transition to virtual work, employees faced an overload of meetings, hindering their individual work progress. However, with time, they learned to discern the necessity and frequency of meetings, effectively structuring their approach.

We initially had more meetings, which became overwhelming. It seemed like we scheduled meetings to replace every in-person interaction at the physical office. We recognised the need for change, reducing unnecessary meetings and prioritising essential ones.

(Inspector)

Employees consistently reported several advantages of virtual meetings. They no longer had to hunt for physical meeting venues, and they could easily include more participants, streamlining the planning process and eliminating the need for multiple meetings on the same topic. This meeting coordination increased efficiency and streamlined the workday by removing the need to commute between meeting locations.

With virtual meetings, there's no limit to the number of participants, making it much easier for everyone to join and ensuring that information reaches all interested parties promptly. We no longer need multiple meetings on the same topic.

(Administrator)

- **Flexible Work Arrangements**

The insights derived from this study hold the potential to greatly assist organisations in their quest to adapt efficiently to the evolving landscape of virtual workforces. The research findings underscore the pivotal role of clear, well-established structures and a proficient familiarity with digital tools in facilitating the successful transition to a virtual work environment.

Nevertheless, the research also highlights a notable challenge: team members with lower levels of self-discipline and a strong dependence on the presence of peers for motivation may find it increasingly difficult to adapt to the flexible virtual work environment and adhere to structured routines.

At times, I find it challenging to work independently within our organisation, entrusted with the critical responsibility of enforcing compliance within the aviation industry. This demanding role necessitates that employees draw upon their diverse areas of expertise while relying on clear and comprehensive guidance from the organisation to ensure that no ambiguities or grey areas are inadvertently created.

(Inspector)

It is essential to acknowledge that while these findings are instructive, further research is warranted. This study serves as a noteworthy reminder that virtual work arrangements may not be universally suitable, emphasising the significance of aligning individual preferences and business needs with the virtual work environment to maintain work-life balance and performance.

Embracing flexible work arrangements, such as virtual work, has advantages, but I often struggle with the blurred boundaries between personal and professional time. Balancing my commitments to work and family can be challenging, as there are instances when my work encroaches on my family time or vice versa. This delicate equilibrium can sometimes lead to suboptimal outcomes, where the quality of my work or family life may suffer due to this overlap.

(Inspector)

The study illuminates that employees who value a clear demarcation between their professional and personal lives may face heightened susceptibility to distractions while working from home and subsequently struggle to maintain focus.

After the lockdown, our organisation stated that employees were expected to work at the office a minimum of three times a week. However, I chose to be present at the office every day. This decision allows me to fully dedicate my time at home to my family, ensuring that I am fully present for them when I am home, and I reserve my office time for focused work.

(Administrator)

Organisations should consider the compatibility between flexible work measures and individual traits to address these challenges effectively while implementing strategies that emulate the physical and temporal boundaries traditionally found in office settings. Practically, this entails the creation of well-defined time management routines and the

establishment of dedicated workspaces, both of which are pivotal in enabling employees to sustain their focus and enhance overall performance.

At the outset of the lockdown, everything appeared quite promising for me. I was relieved of the daily grind of sitting in never-ending traffic jams before reaching the workplace. The concerns over rising petrol costs and the usual workplace distractions were suddenly a thing of the past. I found myself content with working, even into the evenings when necessary. However, this newfound work flexibility gradually led me to overlook my other personal responsibilities and commitments.

(Operational manager)

▪ **Employee Well-being Programmes**

The HR division at SACAA actively fostered open and transparent communication channels with its employees during the pandemic. This was achieved by deploying surveys, engaging feedback sessions, and regular updates on pandemic-related developments. The organisation also took proactive steps to educate employees and managers about effective prevention strategies, underlining the significance of maintaining a healthy work-life balance.

Within the sphere of employee well-being, SACAA has implemented an expansive programme that serves the interests of its employees and extends its supportive embrace to the families who share their homes. This inclusive approach has been evident through extended paid sick leave, additional paid time off to address COVID-related concerns, and the flexible utilisation of paid time off.

The recent outcomes of this initiative are remarkable and represent a significant departure from previous years when the programs' utilisation was less noticeable within organisations. It's worth noting that this well-being program has been available to SACAA employees long before the pandemic. In the past, some employees might have seen it as a mere formality, or a check box exercise imposed by management. However, recent experiences and feedback tell a different story. One employee shared their transformational journey stating.

I used to harbour reservations about the wellness programme, suspecting that it might be a means for the employer to gather information through the therapists they engage, given that they are paying for the service. However, during the lockdown, I decided to try it, and I'm pleased to say that I continue to use it today with genuine benefit.

(Inspector)

In its commitment to aiding employees in successfully adapting to the evolving demands of their work, SACAA introduced comprehensive training and development programmes such as Ms Teams, ethic training, wellness training, mentorship and work-life balance training. These initiatives were designed to bolster employees' skill sets and enhance their overall career resilience, ensuring they remained well-prepared for the challenges ahead. One employee noted,

I've always felt somewhat intimidated by technology, preferring traditional methods in my work. When we initially transitioned to virtual work, I felt anxious, fearing that I might struggle to perform my duties as expected. However, the organisation stepped in and provided us with the necessary training to adapt to this new working method. I'm genuinely pleased to have acquired these new skills, which have proven invaluable in my daily tasks.

(Administrator)

During the lockdown period, SACAA took additional measures to safeguard the health and well-being of its workforce. The organisation offered and subsidised COVID-19 testing for employees exposed to the virus. This swift response aimed to promptly identify and isolate potential cases, reinforcing the entire workforce's safety.

Communication and instructions from the organisation during the lockdown were adeptly managed, providing a sense of reassurance during those challenging times. The lines of communication remained consistently open, ensuring that employees were promptly informed when there were confirmed cases of COVID-19, allowing them to either work virtually or exercise due caution.

(Inspector)

For those exposed to a positive case, the organisation took a compassionate approach by granting them the necessary time off for isolation. Additionally, employees who tested positive received respectful and caring support, with their medical status held in strict confidence. This approach fostered an atmosphere where nobody felt stigmatised or discriminated against for falling ill.

(Operational manager)

SACAA diligently maintained a rigorous sanitation protocol for its facilities. Whenever a positive COVID-19 case was confirmed among its employees, the organisation-initiated a thorough sanitisation process of its premises. In strict adherence to government-imposed restrictions and guidelines, SACAA consistently demonstrated its commitment to respecting, embracing, and implementing all regulated measures to curb the spread of the virus. This unwavering dedication ensured the well-being and safety of both its employees and the broader community.

▪ **Managerial Roles**

The results revealed that SACAA managers should actively facilitate regular communication among team members. This encompasses establishing routine team meetings, conducting one-on-one check-ins, and leveraging various communication tools such as video conferencing, chat platforms, and email for seamless interactions. Additionally, SACAA managers demonstrated effective resource allocation. This involved the reasonable assignment of tasks and projects to team members, considering their unique skill sets and availability. Recognising the diversity of skill sets within virtual teams, the ability to harness these talents is paramount.

It was very important for me as a manager. When we transition to virtual work. To make sure that I keep up to date with my team members. We had regular meetings where we will just schedule a meeting for even less than 10 minutes, just to make sure that everyone is doing OK, everyone has what they need to execute their jobs. Also taking the time to call your team members just to do one on one wellness checks

(Operational manager)

The findings underscore the challenge of monitoring employee performance in a virtual setting, emphasising its essential nature. SACAA managers addressed this by

establishing key performance indicators (KPIs) and implementing an automated performance management system to assess each team member's progress regularly. Furthermore, SACAA managers recognised the pivotal role of tools and software in facilitating performance and task tracking. Both SACAA managers and employees underwent training to enhance proficiency, equipping them with the necessary skills for utilising virtual collaboration tools and staying abreast of emerging technologies and trends.

As a manager I need to know. Where my team members are and whether they are executing their planned tasks. SACAA has implemented a performance management system. This tool assists the organisation to make sure tasks are being executed within the service level agreements set out with our stakeholders. Also having a structure and knowing exactly what you need to do and when to do it is vital for virtual workspace.

(Operational manager)

To combat the feelings of isolation and disconnection experienced by some employees in the virtual space, SACAA managers continued to provide valuable feedback, guidance, and growth opportunities. This proactive approach aimed to bridge the gap caused by virtual work. The results also highlighted the challenge of conflict resolution and mediation within virtual teams. SACAA managers adopted various strategies to address this, including facilitating open discussions and implementing conflict resolution protocols. One employee shared their perspective, stating,

There have been instances when a week passed without my manager communicating with me in the virtual space, especially during lockdown. This left me uncertain about whether I was meeting expectations. I appreciate the days when we can work from the office, as it fosters easier interaction and communication with my manager.

((Inspector))

SACAA managers acknowledged the critical importance of time management in a virtual workforce. They actively supported employees in task prioritisation and scheduling by implementing a comprehensive Master Surveillance Plan, which effectively guided and monitored workflow. Additionally, promoting time-tracking practices helped ensure overall productivity. Trust played a pivotal role in the virtual

workspace, with SACAA managers fostering trust by demonstrating transparency, reliability, and approachability. One manager shared,

We hold regular sectional meetings to address operational matters. This allows me to share crucial information from top management and assess the team's challenges, particularly in the context of virtual work.

(Operational manager)

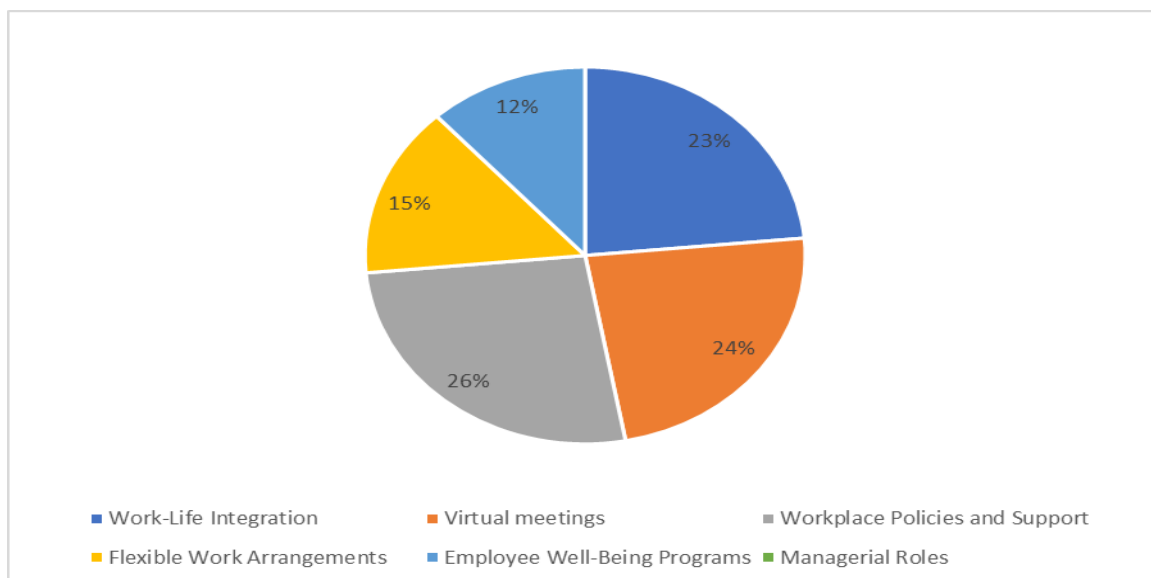
SACAA managers adhered to stringent policies and procedures to ensure that virtual work complied with legal and security requirements. This included safeguarding data protection, preserving confidentiality, and upholding regulatory compliance. As one manager eloquently expressed,

Our commitment to enforcing aviation regulations aligns with our mandate of safeguarding safety and security in the aviation industry. Thus, our employees must adhere to our meticulously defined policies and procedures when working virtually.

(Operational manager)

Figure 6.3 illustrates productivity and work-life balance of employees at SACAA regarding the virtual office environment.

Figure 6.3 Productivity and Work-Life Balance



6.3.4 Technical Infrastructure and Support

The effectiveness of virtual work is heavily dependent on the technical infrastructure and support available to employees. Recent studies emphasize the critical role of reliable technology and IT support in facilitating remote work, highlighting challenges and solutions (Wang et al., 2021; Anderson et al., 2022). These studies explore the technical requirements and support systems necessary for effective virtual work environments.

The questions asked during the face-to-face interviews were as follows:

Can you identify any internal or external factors that may either facilitate or hinder the adoption of virtual work practices within SACAA? This question led to several subthemes as participants shared their experiences and concerns.

Subtheme 1 Hardware and software

Subtheme 2 High-speed Internet access

Subtheme 3 Technical support

- **Hardware and Software**

The pandemic triggered a swift transformation in the workplace, facilitated by SACAA's existing digital and advanced technology infrastructure. One employee expressed this ease of transition with regards to infrastructure and support, stating,

I didn't have to do much. I used my laptop at home, and everything I needed was available. So, the fact that we were already quite automated made the transition relatively smooth. As a SACAA inspector, my work is mostly on the field. We do oversights in airports, airfields, etc. This means everything was already in place about our work tools and support before the pandemic.

(Inspector)

While the initial shift to the new virtual work environment received positive feedback from SACAA employees, it unfolded in distinct phases affected by the pandemic's

disruptions to their routines and motivation. Over time, the novelty of virtual work waned, and employees encountered challenges in managing new constraints. As one team member put it,

As an administrator before the organisation transitioned to virtual work. I had never worked with a laptop before, was assigned a desktop. I needed to learn how to navigate around a laptop and also just remember, a few things I did not have to worry about before like the laptop charger.

(administrator)

- **High-Speed Internet Access**

High speed Internet access, also known as broadband, refers to Internet connection that are significantly faster than traditional dial-up access. It includes various technologies such as DSL cable, fibre optic and satellite connections. These technologies provide faster data transmission rates, allowing for quicker downloads, smoother streaming, and more reliable connectivity.

Our department is always looking for ways to improve connectivity. At the beginning of the transition to virtual work, it was quite challenging because we were getting a lot of calls from employees not being able to connect or not being able to access certain documents that they needed for their daily work. However, at IT we have put measures in place for the employees to be able to get in touch with us when they need, and our systems have capacitated us to render support virtually.

(IT Specialist)

By ensuring high speed Internet access, Organisations can enhance their overall efficiency, competitiveness, and their ability to adapt to changing environments. Though SACAA evolves with the technology of today to ensure the organisation remains competitive, internet access was a challenge when transitioning to virtual work. The quality of the Internet access in employees' homes varied widely, leading to numerous complaints. This issue resulted in employees being late to virtual meetings and training workshops. To mitigate this challenge SACAA issued each employee with a 3G card, ensuring they could connect to the Internet whenever they were, thereby maintaining productivity and connectivity. One of the employees stated the following:

Before SACAA implemented virtual work, I use the Internet but not as often as I use it today. I have found that there is a lot of information in the Internet which has actually helped me improve my work and with the policies that the organisation has also put in place, we're able to manage the connectivity, like for instance when we have virtual meetings one of our procedures stipulates that you are required to connect 15 minutes before the meeting resumes, to give you time to make sure you are connected and on the right platform.

How high-speed Internet access helps SACAA:

Improve productivity. Faster Internet speeds reduce waiting times for downloads, uploads, and data access, allowing employees to complete tasks more efficiently. The results shed light on that sucker. Employees agree that in the beginning, internet access was an issue as the transition was done abruptly, However, when SACAA implemented mitigation strategy to. The connection has been improved in most cases.

As a quality specialist my work involves uploading and downloading documents on a daily basis. Therefore, it is very important for me to be to stay connected to the internet at all times. I'm grateful for the fact that the organisation has provided enough internet access while we work from home. Therefore, one does not need to worry about whether you have enough data to be able to do your work.

(Quality Specialist)

Enhance communication. High speed Internet enables seamless video conferencing. An instant messaging facilitating better communications amongst virtual and on-site employees. SACAA employees showed satisfaction with their enhanced communication and appreciated and appreciation to be able to access. Their work tools, whatever they are in the world.

Cloud services utilisation. With high-speed Internet, organisations can leverage cloud-based applications and storage solutions, leading to improved collaborations and data accessibility. SACAA documents and records are very important and as a regulator the organisation keeps data as evidence of activities and records for safety improvements. The cloud is seen by most employees as a safe place that the organisation can store their data.

It is always satisfying to be able to access information when you need that information. Especially with us as inspectors, we are always on the field, sometimes requiring information that could have been stored at the office. So, at this point we're able to pull things from the cloud and we're able to share documents with our colleagues who are on the other side of the world most of the time.

(Inspector)

Better customer service. Quick and reliable internet access allows for faster response times and improved customer interactions through chat, emails and video support. Internet access has enabled SACAA employees to access their stakeholders quicker which has improved customer services.

Employee satisfaction. Providing a high-speed internet access can improve employee satisfaction and retention by enabling a smooth and more effective efficient work experience. SACAA employees agreed it's exciting to discover that one can do their work in a quicker turnaround with access to the internet this enables them to have a healthy work-life balance.

- **Technical Support**

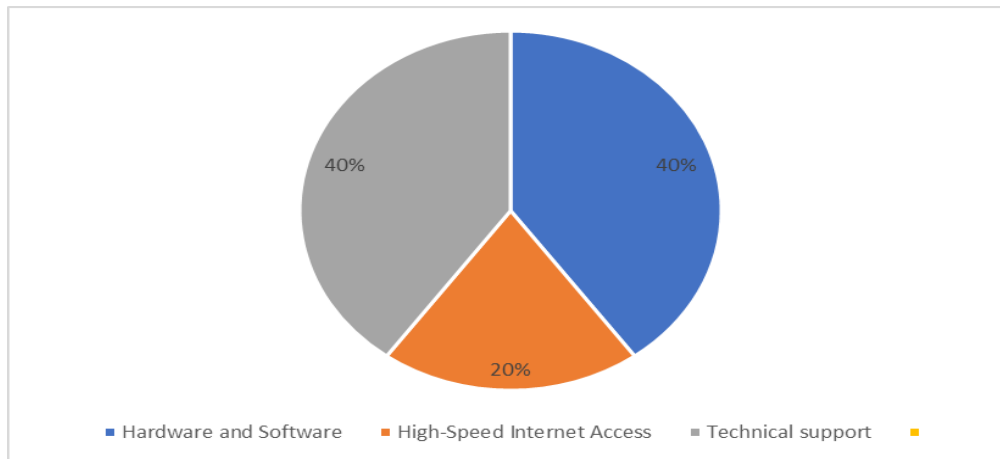
The results show that SACAA provides technical support to virtual employees through a dedicated SACAA IT helpdesk or support team. IT ensured that employees could easily access assistance when they encountered technical issues or required guidance. The result also highlighted that SACAA invested in reliable video conferencing and communication tools (e.g., Zoom and Microsoft Teams) to facilitate virtual meetings, team collaboration, and real-time communication.

During the lockdown, especially amid the pandemic, IT faced some significant challenges. However, it turned out to be one of the most pivotal moments in my career, witnessing our organisation's wholehearted embrace of technology," shared the IT specialist. "We needed to get the IT team on board to monitor the queries on the help desk effectively.

(IT specialist)

Figure 6.4 illustrates the technical infrastructure and support provided by SACAA to ensure employees have the necessary resources to maintain high productivity and seamless communication in a virtual work environment. The graph highlights the distribution of technical resources, the implementation of support systems, and the overall effectiveness of these measures in enhancing performance and satisfaction.

Figure 6.4 Technical infrastructure and support



6.3.5 Training And Adaptation

Adapting to a virtual work environment requires ongoing training and support. Research highlights the need for continuous learning opportunities and adaptive strategies to ensure employees are equipped to handle the demands of remote work (Näswall et al., 2021; Mäkelä et al., 2021). These studies discuss the types of training that are most effective and how organizations can support their employees during transitions to virtual work.

The result demonstrated that training in a virtual workforce is essential for empowering employees with the skills and knowledge needed to work effectively, securely, and collaboratively in a virtual environment. It enhances individual performance and contributes to the overall success of the organisation's virtual work initiatives.

The questions asked during the face-to-face interviews were as follows:

What adaptation processes have you observed among employees as they transition to virtual work, and how do these processes impact their productivity and well-being?

This question led to several subthemes as participants shared their experiences and concerns.

Subtheme 1 Adapting to virtual tools.

Subtheme 2 Managing virtual teams.

Subtheme 3 Enhancing technical skills.

Subtheme 4 Boosting confidence.

Subtheme 5 Problem-solving

- **Adapting to Virtual Tools**

Virtual work often involves using various digital tools, communication platforms, and project management software. This study indicated that training helped SACAA employees become proficient in these tools, ensuring they could adapt, work efficiently and effectively in a virtual setting.

Training and onboarding: SACAA has taken proactive steps to prepare its workforce for the demands of virtual work. The organisation provided comprehensive training on digital tools and platforms vital for virtual work, including video conferencing, collaboration software, and project management tools. Comprehensive training programs providing thorough training on how to use new virtual tools effectively. This training ensures that employees are well-versed in utilising these technologies effectively to support their tasks. Continuous learning opportunities offering ongoing education and resources to help employees stay updated on the latest features and best practices.

Our organisation is firmly committed to fostering a culture of continuous learning and has consistently supported and funded the training needs of our employees. This commitment is integral to ensuring the precise execution of our mandate. Given the complex and safety-critical nature of the aviation industry, our work environment demands a high level of expertise. We take our responsibility seriously in safeguarding safety and security within the aviation space.

(Executive manager)

In recognition of the unique cybersecurity challenges posed by virtual work, SACAA has also prioritised educating its employees about cybersecurity best practices. This

encompasses safe internet usage, effective password management, and the ability to identify phishing attempts. The objective is to raise awareness about potential security threats within a virtual work environment and equip employees with the knowledge and skills to safeguard against them.

Our work involves handling sensitive personal information of our clients, and we must maintain strict safeguards to prevent unauthorised access. The consequences of this information falling into the wrong hands can be highly detrimental. While virtual work has presented new challenges for our organisation, it has also compelled us to enhance our security measures continually. This commitment to security remains paramount in our operations.

(Inspector)

Choosing the right tools: Communication platforms, selecting reliable platforms for video conferencing, instant messaging for example Microsoft Teams, e-mail, SharePoint and the SACAA website.

Being able to chair and conduct meetings while sharing documents for viewing with colleagues has been amazing. We've significantly reduced the time needed for various processes, including taking down minutes, thanks to Microsoft Teams' transcription capabilities.

(Senior manager)

Project management tools: Utilising tools to track tasks, manage projects and ensure team collaboration.

Having the ability to track and generate project reports with the click of a button has streamlined the monitoring process, making information readily available electronically.

(Project specialist)

File sharing and collaboration: SACAA has implemented cloud storage solutions such as Google Drive, Dropbox or OneDrive for easy file access and real time collaboration on documents.

The virtual platform has made it better for the SACAA to be able to share information and communicate effectively. In this virtual world, you can conduct audits and view, interrogate evidence on the spot.

(Inspector)

Technical Support: SACAA has help desk services, where a dedicated help desk is to assist employees with technical issues and questions related to virtual tools.

SACAA has a dedicated help desk service where employees can get assistance with any technical issues or questions related to virtual tools. Knowing that there's a team ready to help whenever we encounter problems has been incredibly reassuring and has minimised downtime significantly.

(Inspector)

Regular updates and maintenance: SACAA tools and systems are regularly updated to fix bugs, add new features and maintain security. SACAA employees are required to maintain and update their tools to confirm relevance and continuous improvements.

The IT team ensures that all tools and systems are regularly updated to fix bugs, add new features, and maintain security. We, as employees, are required to keep our tools updated to ensure their relevance and to take advantage of continuous improvements. This proactive approach helps us stay on top of our work and use the latest technology to our advantage.

(Quality specialist)

Feedback mechanisms: SACAA has implementing channels for employees to provide feedback on tools enabling continuous improvement such as surveys that were sent to the employees covering challenges and opportunities of the virtual world.

SACAA has implemented several channels for us to provide feedback on the tools we use. This creates a security for us working on the field

(Inspector)

Monitoring and evaluation: Usage analytics. Tracking the usage of virtual tools to identify patterns. And areas for improvement. SACAA also conducts quality audits in all their departments to make sure tools are well maintained and are relevant for current use.

This is a virtual platform that I personally appreciate because it is quick, and you can implement continuous improvement measures based on what you have in front of you. Where no one is required to sort throughout files physically like we did in the traditional setup.

(Operational manager)

Employee Surveys and quality audits: Conducting regular surveys and quality audits to gather feedback on effectiveness and usage of usability of the tools.

Human Resources has played a crucial role in ensuring the quality of our transition to virtual work. They have been instrumental in conducting quality audits on staff, ensuring that we adapt smoothly to virtual environments. For instance, they regularly send out surveys that capture the challenges and opportunities we encounter in the virtual world. This proactive approach not only helps address issues promptly but also fosters continuous improvement and supports our overall adaptation to virtual work.

(Operational manager)

- **Managing virtual teams**

Furthermore, the results illustrated that the organisation's commitment to facilitating a smooth transition to virtual work is evident in the training programmes provided across different divisions within SACAA. This holistic approach ensures that employees from various areas receive the necessary guidance and tools to adapt successfully.

I was genuinely surprised at how smoothly I adapted to the new way of working. Having been with this organisation for over 24 years, I was initially content with our established work methods and somewhat reluctant to change a system that had been effective. However, with the training we received, I found myself not only coping but excelling in the new work environment.

(Administrator)

Among the key training areas are time management, goal setting, and productivity techniques explicitly tailored for virtual work. SACAA empowers its employees to establish structured routines and prioritise tasks effectively, ultimately enhancing their ability to maintain productivity in the virtual work setting.

Another employee explained that:

It was not easy to find a routine that works for everyone in my household; however, the training we received, especially regarding time management and setting boundaries, has helped ease the transition.

(Administrator)

▪ **Enhancing Technical Skills**

The results indicated that some employees adapted to virtual work more slowly in certain areas, which could be attributed to their diverse backgrounds and age differences. Nonetheless, the findings underscored that a significant majority within the organisation has wholeheartedly embraced virtual work.

I was initially sceptical, with my main concern revolving around my unfamiliarity with the automated systems, which I had never encountered before in the virtual workforce. The prospect of adapting to these new technologies was quite daunting and initially caused a great deal of anxiety. However, once I began using them, I quickly realised how straightforward and user-friendly they were.

(Inspector)

As technology evolved, the results illustrated that SACAA was not falling behind, as it already had an automated system before the pandemic. However, employees needed ongoing training to stay up to date with the latest tools and software. This ensured they remained competitive in their roles.

▪ **Boosting Confidence**

The results showed that training provided employees with the knowledge and skills they need to excel in their virtual roles. This boost in confidence can lead to increased job satisfaction and better performance.

An employee elaborated on how the skills acquired through training have significantly bolstered their confidence in working independently.

Although the initial stages presented some challenges, the learning curve was surprisingly short. As evidenced by our current work dynamics, most colleagues have also gained confidence in utilising these tools, particularly evident in our seamless virtual interactions.

(Inspector)

The findings underscored the substantial investment SACAA made in adequately training and supporting its virtual employees, and this was unmistakably evident in their confidence during the interviews on this matter. One employee expressed their appreciation, stating,

I am incredibly grateful for the training we received during my audit. I now feel fully equipped to carry out my tasks without any panic regarding my ability to connect or communicate in a virtual environment. I find Microsoft Teams to be the easiest and most efficient means of communication.

(Inspector)

- **Problem-Solving**

SACAA's training initiatives have effectively equipped employees with problem-solving skills, enabling them to tackle the distinctive challenges associated with virtual work, such as technical issues and communication breakdowns. The results indicate that this achievement is attributable to the dedicated IT support and ongoing employee training.

One manager conveyed their confidence in navigating virtual work, stating,

I've grown so accustomed to virtual work that I can easily troubleshoot and resolve issues without involving our IT team.

(Operational manager)

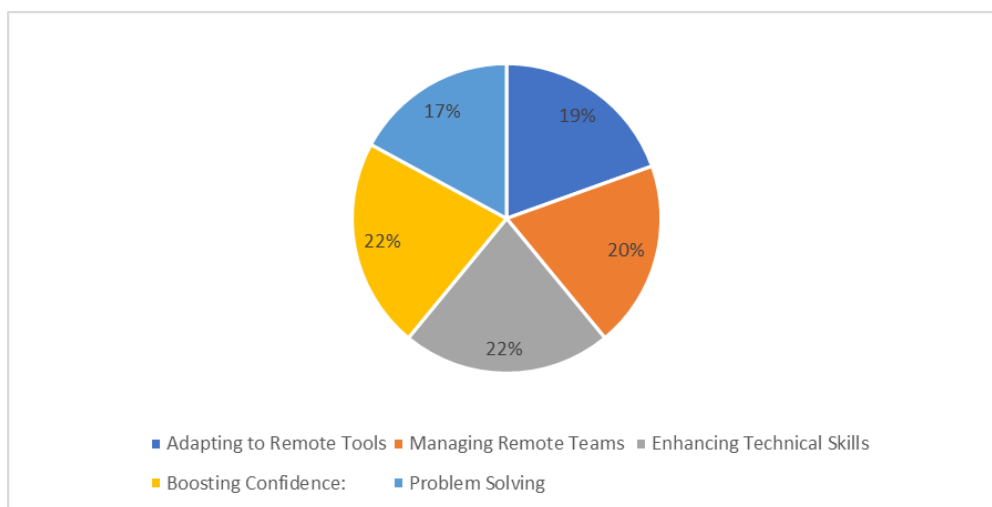
The findings highlighted the positive impact of virtual work on problem-solving and efficiency in interactions with external stakeholders. SACAA employees and managers observed that virtual work has streamlined numerous approval processes, significantly improved turnaround times and increasing client satisfaction. One inspector remarked,

Our clients are thrilled that they no longer need to submit physical documents and endure lengthy service waiting periods. Virtual work has greatly expedited the delivery of our services.

(Inspector)

Figure 6.5 illustrates the comprehensive training programs and adaptation strategies implemented by the SACAA to ensure a smooth transition to virtual work highlighting key areas of focus and employee feedback on effectiveness of these initiatives.

Figure 6.5 Training and Adaptation



The study's findings align with existing literature, highlighting the advantages of enhanced flexibility within the virtual work environment. This flexibility encompasses the freedom to determine one's workdays as desired and the choice of work location (Beauregard & Henry, 2009). This study supports arguments presented in the existing literature, which assert that reduced travel and commute times can compensate for extended working hours by amplifying productivity (Beauregard & Henry, 2009). This research contributes to the expanding body of knowledge on workplace flexibility by demonstrating that heightened productivity is intricately linked to diminished disruptions from social interactions and office-related activities that typically impede the workflow of team members. This enhanced focus and reduced interference result in more efficient task completion (Martin & MacDonnell, 2012).

- **Distractions and work-home interference**

While most team members frequently reported experiencing fewer office distractions, a subset acknowledged increased distractions due to their work and home life intertwining. For those individuals who aim to maintain a clear distinction between their professional and personal spheres, achieving work-life balance and setting effective boundaries becomes an intricate challenge. This challenge is exacerbated in flexible work environments, where the lines between work and home domains tend to blur. Additionally, a greater degree of autonomy can negatively impact the ability to manage the home-work boundary effectively, especially when working virtually for an organisation like SACAA.

- **Impact of Segmentation Preference**

The study's findings indicate that team members who prefer segmentation, seeking to create a distinct physical workspace and demarcate boundaries between work and non-work responsibilities, faced notable difficulties. Notably, the absence of established physical boundaries could reduce work quality or efficiency, subsequently influencing motivation and overall performance (Allen et al., 2021).

- **Balancing segmentation and sharing**

In contrast, individuals who favour segmentation to delineate their work and personal lives may encounter challenges when sharing their home as their place of employment (Allen et al., 2021). Their preference for maintaining a clear separation between these domains may result in increased interruptions and distractions at home, ultimately diminishing motivation and performance. Notably, while increased flexibility reduces office-related distractions and boosts efficiency, it simultaneously amplifies the likelihood of home-based disruptions for those who seek to separate work and family life.

- **Virtual communication**

Results showed it could be posited that virtual communication predominantly exhibits formality, characterised by a task-oriented communication approach (Marlow et al., 2017). These findings received additional validation from the observations, where we noticed a strict adherence to the meeting agenda, prioritising discussions related to tasks. Only a minimal portion of the meeting was dedicated to conversing on

relationship-oriented topics, such as team members' weekend activities or experiences. Nevertheless, it is worth acknowledging that while task-oriented content takes precedence in virtual interactions, research indicates that team members occasionally share relational information through virtual tools, albeit to a varying extent (Marlow et al., 2017).

6.4 CHAPTER SUMMARY

This chapter presented the study's findings comprehensively. Through in-depth interviews with SACAA employees and management, five main themes emerged, offering a profound understanding of the subject matter. These themes provide valuable insights into organisations' widespread adoption of virtual work. Yet, this adoption is not without its merits and demerits, with a keen focus on their implications for organisations. Furthermore, this chapter offered a comparative analysis by drawing upon findings from related studies conducted by researchers in preceding years. This comparative evidence augments the understanding of virtual work's dynamics and its impact on organisations, shedding light on the continuity and evolution of this topic in the research landscape

CHAPTER 7

CONCLUSIONS, LIMITATIONS, DELIMITATIONS AND RECOMMENDATIONS

7.1 INTRODUCTION

In this section, the discussion focused on the interpretation and discussion of the findings presented in the previous chapter, with a strong focus on the alignment with relevant theories detailed in the literature review. The aim was not only to explore findings that supported existing organisational literature but also to scrutinise the most compelling discoveries that offered new insights or presented explanations or contradictions to current literature. This chapter further outlined the study's limitations and proposed avenues for further research. This section concluded with the practical implications of this research for the relevant theories previously presented.

This study focused on exploring the experiences of SACAA employees as they transitioned to virtual and hybrid work models. Through comprehensive research, intriguing insights emerged, particularly regarding how employees navigated this transition and adapted to working in virtual teams. In the following sections, we delved into the key findings concerning the virtual team experience. This discussion underscored the significant challenges and benefits that surfaced, with a particular emphasis on trust, communication, collaboration, isolation, and the delicate balance between work and personal life, including the newfound flexibility it afforded.

This chapter served as the culmination of the study, offering a comprehensive overview of its essential aspects. It began by summarising the foundational theories expounded upon in Chapters two, three, and four. Following this, it proceeded to draw conclusions based on the empirical findings gleaned throughout the study while also addressing the limitations and challenges encountered during the research process. Furthermore, this chapter provided valuable recommendations for prospective studies on the same topic, offering contributions to guide other researchers in extending and deepening this field of research.

7.2 OVERVIEW OF THE STUDY

The primary objective of this study was to investigate the transition from a traditional office to a virtual work environment and understand its effects in a broader context.

Specifically, the study

- Investigated scholarly literature on virtual work within organisational contexts.
- Reviewed and analysed literature on traditional office work and its relevance to organisational dynamics.
- Explored literature to identify unique demands, challenges, and requirements of the aviation industry on virtual work practices.
- Synthesised findings to develop practical recommendations tailored to SACAA's operational needs and regulatory context.
- Assessed employees' perceptions and adaptation processes regarding the shift to virtual work arrangements.
- Identified and analysed organisational challenges encountered during the transition process.
- Proposed evidence-based strategies for SACAA to facilitate a smooth transition to virtual work.
- Developed recommendations for the successful implementation and sustainability of virtual work practices post-transition.

To find answers, the following specific research questions were addressed in this study:

- How was traditional office work conceptualised within the existing body of literature?
- How was virtual work conceptualised and delineated within scholarly discourse?
- What specific demands and requirements did the aviation industry pose on virtual work practices within organisational settings?
- How could the insights gained from the literature study be utilised to formulate practical recommendations for SACAA to effectively integrate and optimise virtual work practices, considering the organisation's specific operational needs and the regulatory environment within the aviation industry?
- What factors influenced the transition from traditional office setups to virtual work environments within the SACAA?

- How did employees perceive and adapt to the shift from traditional office work to virtual work arrangements at SACAA?
- What were the organisational challenges encountered during the transition process from traditional to virtual office settings within SACAA?
- What strategies and best practices could SACAA implement to facilitate a smooth and effective transition from traditional to virtual office environments?
- How could SACAA ensure the successful implementation and sustainability of virtual work practices post-transition?

7.3 MAIN FINDINGS

The primary objective of this study was to comprehensively explore the experiences of SACAA employees during their transition from traditional office setting to virtual work arrangements. Recent studies underscore the significance of understanding employee experiences during such transitions to enhance organisational outcomes. According to Smith (2023), effective management of virtual work transitions requires a deep understanding of employee perspectives and adaptation strategies (Brown et al (2022) further highlighted that successful implementation of virtual work environment hinges on addressing employee concerns and optimising collaboration tools.

The findings of this study identify seven key themes meticulously analysed and extensively discussed. These themes encapsulated the varied experiences and insights of SACAA employees as they navigate the shift from traditional office environments to virtual works setups. This research contributes significantly to the existing literature by providing nuanced perspective and insights into the intricate dynamics of virtual work, especially amidst the unprecedented challenges posed by the COVID-19 pandemic.

Theme 1: Conceptualisation of Virtual Work and Traditional Office Work

Theme 2: Aviation Industry and Virtual Work Practices:

Theme 3: Literature Synthesis and Practical Recommendations:

Theme 4: Transition from Traditional to Virtual Work Environments:

Theme 5: Employee Perceptions and Adaptation Processes:

Theme 6: Evidence-Based Strategies and Best Practices:

Theme 7: Long-Term Sustainability of Virtual Work Practices:

- **Conceptualisation of Virtual Work and Traditional Office Work**

Exploring SACAA employees' perceptions of the shift from traditional office environments to virtual work setups revealed nuanced attitudes towards virtual work. Initially, employees exhibited varied comfort levels with digital tools and virtual collaboration platforms. While some embraced the flexibility and convenience of virtual work, others expressed concerns about maintaining productivity and work-life balance outside the traditional office setting. Interviews and surveys conducted with SACAA employees shed light on the role of organisational culture and policies in shaping their adaptation to virtual work. Insights gleaned from these interactions highlighted the importance of clear communication, transparent expectations, and supportive leadership in facilitating a smooth transition to virtual work environments.

- **Aviation Industry and Virtual Work Practices**

The aviation industry's adaptation to virtual work practices presented unique challenges and opportunities. SACAA employees, particularly those involved in air traffic control, safety inspections, and regulatory compliance, navigated the integration of virtual communication tools into their daily operations. The interviews with aviation experts at SACAA underscored the critical role of technology in ensuring data security and maintaining safety standards in virtual work environments. Furthermore, exploring strategies for fostering collaboration across virtual locations provided valuable insights into optimising virtual work practices within the aviation industry.

- **Literature Synthesis and Practical Recommendations**

Synthesising existing literature on virtual work practices illuminated key trends and best practices applicable to SACAA's transition to virtual work environments. Scholarly articles, case studies, and industry reports provided a comprehensive understanding of communication strategies, technology adoption, organisational culture, and employee training in virtual work settings. Practical recommendations tailored to SACAA's unique needs encompassed areas such as fostering effective communication, promoting digital literacy, and supporting employee well-being in virtual work environments. Additionally, the analysis identified emerging trends and areas for future research, guiding SACAA's ongoing efforts to optimise virtual work practices.

- **Transition from Traditional to Virtual Work Environments**

The transition from traditional office setups to virtual work environments necessitated organisational changes to support virtual work effectively. SACAA's update of policies, investment in technology infrastructure, and provision of employee training were instrumental in facilitating this transition. Assessing the impact on employee morale, productivity, and collaboration revealed both challenges and opportunities associated with virtual work. A step-by-step guide developed for SACAA provided actionable recommendations for managing change, mitigating resistance, and measuring success throughout the transition process.

- **Employee Perceptions and Adaptation Processes**

Understanding SACAA employees' perceptions and adaptation processes in virtual work environments highlighted factors influencing their attitudes and behaviours. Job autonomy, communication effectiveness, and work-life balance emerged as key determinants of employee satisfaction and performance in virtual work settings. Qualitative data collected through interviews identified strategies for adapting to virtual work, including establishing routines, setting boundaries, and leveraging digital tools for collaboration. These insights informed SACAA's efforts to support employee well-being and productivity in virtual work environments.

- **Evidence-Based Strategies and Best Practices**

Identifying evidence-based strategies and best practices for implementing and managing virtual work environments informed SACAA's approach to virtual work initiatives. Successful case studies, empirical research, and industry benchmarks provided actionable insights into effective approaches to virtual collaboration, digital communication, and virtual team management. A toolkit containing practical tools, templates, and guidelines empowered SACAA to navigate the complexities of virtual work, fostering a culture of innovation and adaptability within the organisation.

- **Long-Term Sustainability of Virtual Work Practices and Hybrid Model**

In the ever-evolving landscape of virtual work practices, the key to long-term sustainability lies in proactive measures that prioritise employee engagement, productivity, and overall well-being. SACAA's steadfast commitment to fostering leadership support, facilitating effective communication channels, and investing in

robust technology infrastructure has been instrumental in nurturing a thriving virtual work environment. Central to this success is SACAA's adoption of a dynamic framework for continuous improvement, which serves as a compass for navigating the fluid challenges and promising opportunities inherent in virtual work dynamics.

One notable evolution in SACAA's approach has been the transition to a hybrid model post the easing of COVID lockdown restrictions. Employees' perspectives underscore a significant shift in experience, highlighting both the advantages and challenges of this model. While it offers newfound flexibility, there is a unanimous agreement that meticulous oversight and control mechanisms are imperative to optimise its benefits effectively. Regular assessments, streamlined feedback mechanisms, and agile adaptation strategies emerge as linchpins in fostering organisational resilience and adaptability, thereby ensuring SACAA's sustained excellence in virtual work practices. As SACAA continues to refine its hybrid model, it is evident that a proactive stance toward refining and reinforcing these strategies will be paramount in navigating the complexities of the evolving virtual work landscape.

7.4 LIMITATIONS OF THE RESEARCH

The study had specific limitations in terms of its scope and methodology. It focused exclusively on SACAA employees within technical divisions, support staff, and management, excluding those employed from 2020 to 2023 who did not experience the organisational transition central to this study, particularly relevant to the aviation industry. The interview questions were not quality assured by all parties, with input limited to a select few colleagues. However, a pilot study helped refine the interview questions. Additionally, the availability of participants posed challenges in scheduling interview times and dates, especially considering that many participants, mainly technical inspectors, often operated away from the office. This occasionally hindered data collection, as not all intended participants could be interviewed. Nonetheless, the study managed to find replacements while maintaining the initial target demographics.

Several critical considerations must be acknowledged. Firstly, the research relies on qualitative data from a relatively small sample, limiting the impact of the findings beyond

the SACAA context. Expanding the dataset to include more interviews and exploring various organisations across different sectors would enhance the study's applicability.

Secondly, it is essential to recognise that the research occurred during the COVID-19 pandemic, which significantly impacted team dynamics. Although the study aimed to examine virtual work during this unique period, the pandemic's exceptional circumstances may have influenced the findings. Nevertheless, the research retains value for the ongoing exploration of virtual work, considering the continued relevance of virtual work arrangements beyond the pandemic.

Numerous reports, including one from McKinsey (2020), predict the enduring impact of virtual work. Many organisations now embrace flexible work arrangements, allowing employees to choose between office-based and virtual work. Future studies should further investigate employees' experiences in these settings, accounting for various periods during and after the pandemic, which could yield distinct insights. Additionally, a comprehensive exploration of the factors influencing, and consequences of virtual work would contribute to a better understanding of this evolving work paradigm.

Lastly, it is crucial to acknowledge that qualitative research inherently involves some degree of bias and errors in conducting interviews. While the complete elimination of researcher bias is challenging, efforts were made to minimise it. These efforts included using a face-to-face semi-structured interview guide, careful sequencing of questions, and minimising leading questions to enhance the credibility of responses.

7.5 DELIMITATIONS

Delimitations in research refer to the boundaries or constraints that are intentionally set by the researcher to narrow the scope of the study (Smith, 2019). These limitations define what aspects of the research topic will be included and excluded, and they help to focus the study on specific parameters. Delimitations are essential for ensuring that the research remains manageable, feasible, and relevant to the research question or objective. They also provide transparency about the study's scope and potential limitations to readers and stakeholders. Common types of delimitations include setting

geographical boundaries, specifying the time frame of the study, defining the population or sample size, and outlining any methodological constraints (Johnson, 2018).

This study has the following delimitations:

- **Scope and Participant Selection:** This study exclusively focuses on examining the transition effect from traditional to virtual office environments within the SACAA. Given the researcher's affiliation with SACAA, the study primarily involves employees from the Gauteng offices. Due to limited access to technical employees, particularly those in field worker roles, the study may not encompass all relevant perspectives within SACAA's workforce.
- **Methodological Limitations:** The interview schedule poses a significant challenge due to the availability of participants, particularly technical employees with demanding workloads. This limitation may impact the breadth and depth of data collection.
- **Generalisability:** The findings of this study may have limited generalisability beyond the context of SACAA due to the organisation-specific nature of the research and the researcher's affiliation with the organisation. While the insights gained may be valuable for similar organisations undergoing similar transitions, caution should be exercised when extrapolating findings to other contexts.
- **Access to Technical Employees:** Limited access to technical employees, who may play a crucial role in the transition process, may restrict the depth of understanding regarding their experiences and perspectives. This limitation may affect the comprehensiveness of the study's findings.
- **Comparative Analysis:** Future research could explore the transition from traditional to virtual office environments in other organisations within the aviation industry or across different sectors. A comparative analysis could provide broader insights into common challenges, best practices, and lessons learned.
- **Inclusion of Additional Perspectives:** Efforts should be made to overcome barriers to access technical employees, such as implementing flexible interview schedules or utilising alternative data collection methods. Including a diverse range of perspectives would enrich the study's findings and enhance its applicability.

- **Longitudinal Study:** A longitudinal study tracking the transition process over time could provide a deeper understanding of the long-term effects and outcomes of transitioning from traditional to virtual office environments. This approach would offer insights into the evolution of organisational practices and employee experiences throughout the transition journey.

7.6 RECOMMENDATIONS BASED ON THE FINDINGS

This section outlines several recommendations derived from the study that provide valuable insights into optimising virtual work experiences. These recommendations encompass three key areas, each offering opportunities to enhance virtual work practices. Based on the comprehensive analysis conducted in the study, tailored recommendations are proposed for SACAA to optimise its transition to virtual work environments and sustain operational excellence.

This study the following recommendations:

- **Enhance Digital Literacy and Training Programs**

Develop comprehensive training programs to improve employees' proficiency with digital tools and virtual collaboration platforms. Offer ongoing support and resources to address any technological challenges or concerns.

- **Strengthen Organisational Culture and Policies**

Foster a supportive virtual work culture by promoting clear communication, transparent expectations, and supportive leadership.

Update organisational policies to reflect the requirements and dynamics of virtual work environments, ensuring alignment with employee needs and industry standards.

- **Ensure Data Security and Safety Standards**

Prioritise technology investments that uphold data security and safety standards, particularly in critical areas such as air traffic control, safety inspections, and regulatory compliance. Provide training and resources to employees on best practices for maintaining data security in virtual work environments.

- **Optimise Communication Strategies**

Implement effective communication channels and strategies to bridge the gap between virtual locations and foster collaboration among remote teams. Encourage regular communication and feedback loops to maintain connectivity and alignment within the organisation.

- **Support Employee Well-being and Work-life Balance**

Offer resources and programs to support employee well-being, such as mental health initiatives, flexible work arrangements, and resources for managing work-life balance. Promote strategies for setting boundaries, establishing routines, and leveraging digital tools to support employee productivity and satisfaction.

- **Implement Change Management Processes**

Develop a structured change management plan to guide the transition from traditional office setups to virtual work environments. Mitigate resistance to change through clear communication, training, and involvement of employees in the transition process.

- **Foster Continuous Improvement and Adaptability**

Establish mechanisms for ongoing assessment and evaluation of virtual work practices to identify areas for improvement. Embrace a dynamic framework for continuous improvement, encouraging agile adaptation strategies to address evolving challenges and opportunities in the virtual work landscape.

- **Refine and Reinforce Hybrid Work Model**

Continuously evaluate the effectiveness of the hybrid work model and solicit feedback from employees to identify areas for optimisation. Implement control mechanisms and oversight processes to ensure the successful integration of hybrid work arrangements while maximising their benefits.

- **Promote Leadership Support and Engagement**

Empower leaders to champion virtual work initiatives and provide necessary support to employees navigating virtual work environments. Foster a culture of inclusivity and

engagement where leaders actively seek input from employees and address their concerns.

By implementing these recommendations, SACAA can effectively navigate the complexities of virtual work environments, promote employee satisfaction and productivity, and maintain its commitment to excellence in the aviation industry.

7.7 CHAPTER SUMMARY

This study examined SACAA as an illustrative case of transitioning from traditional to virtual office environments. In response to the initial inquiry, the study unearthed significant insights into employee experiences, revealing two key findings:

Firstly, the transition was facilitated by the pre-existence of digital tools and the implementation of concise meeting agendas. These factors streamlined the adaptation to virtual work. However, the ability to adjust to flexible work environments was contingent upon individual discipline in establishing and adhering to work routines and preferences regarding the integration or segmentation of work and non-work responsibilities.

Secondly, the study found that teams had the autonomy to determine their communication frequency, which naturally varied among teams. Nonetheless, assessing individuals' challenges and mental states during interactions could be challenging. While audio and video communication enhanced contextual understanding, they also introduced disruptions and technological issues that occasionally hindered employees' ability to voice their thoughts and concerns.

The study also delved into the primary advantages and disadvantages of virtual team interactions in a subsequent section:

- The virtual work environment presented limited social opportunities and a dearth of informal communication channels, impacting relationships and overall well-being.

- Challenges included the difficulty of establishing new relationships, getting to know colleagues, and maintaining consistent communication across teams.
- Building trust among team members posed a significant challenge.
- However, the use of audio and video-based communication, alongside regular updates among team members, played a pivotal role in fostering social cohesiveness.

The study emphasised the formidable challenge of achieving work-life balance for individuals working full-time in virtual teams. This often arises due to a misalignment between individual preferences regarding work, the work environment, and personal well-being. Nevertheless, virtual workplaces offer distinct benefits, such as reduced office distractions and increased freedom.

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ANNEXURES

Annexure 1:

Interview questions

1. Can you discuss your understanding of traditional work and virtual work within organisational contexts?
2. In your opinion, what are the key characteristics that differentiate virtual work from traditional office work?
3. What specific demands and challenges does the aviation industry impose on virtual work practices within organisational settings?
4. Can you identify any internal or external factors that may either facilitate or hinder the adoption of virtual work practices within SACAA?
5. What organisational challenges have you identified during the transition process from traditional to virtual office settings within SACAA?
6. How do these challenges impact various aspects of organisational functioning, such as communication, collaboration, and task coordination?
7. What adaptation processes have you observed among employees as they transition to virtual work, and how do these processes impact their productivity and well-being?
8. How do employees at SACAA perceive the shift from traditional office work to virtual work arrangements, based on your interactions or research?
9. Can you elaborate on the key aspects of traditional office work that have been identified as relevant to organisational effectiveness and efficiency?
10. In your view, what are the critical success factors for SACAA to consider in sustaining virtual work practices over the long term, and how can these be effectively managed and monitored?

Annexure 2:
Participant information sheet

NO	Occupation	Gender	Race	Age	Division/Department
26.	Executive	Male	White	59	Air Safety Infrastructure
27.	Executive	Female	Black	53	Legal and Aviation Compliance
28.	Executive	Female	Black	51	Human Resources
29.	Executive	Female	Black	48	Corporate Services
30.	Senior Manager	Male	Black	42	Airworthiness
31.	Senior Manager	Female	White	39	Consistency and Standardisation
32.	Senior Manager	Male	Black	48	Flight Operation
33.	Manager	Male	Black	55	Aviation Security
34.	Manager	Male	Coloured	35	Aviation Security
35.	Manager	Male	Black	42	Legal and Aviation Compliance
36.	Manager	Male	Black	37	Flight Operation
37.	Inspector	Female	Coloured	28	General Aviation
38.	Inspector	Male	Black	29	Aviation Security
39.	Inspector	Male	Indian	37	Flight Operation
40.	Inspector	Male	Black	42	Flight Operation
41.	Inspector	Female	Indian	33	Aviation Security
42.	Inspector	Male	Black	50	Airworthiness
43.	Inspector	Female	Black	40	Airworthiness
44.	IT Specialist	Female	Black	28	Information and Communication Technology
45.	Quality Assurance Specialist	Female	Black	44	Risk and Compliance
46.	ICAO Specialist	Male	Black	47	Legal and Aviation Compliance
47.	Projects Specialist	Male	Black	28	Risk and Compliant
48.	Inspector	Male	Black	29	Aviation Security
49.	Quality Specialist	Female	Black	45	Risk and Compliance
50.	Administrator	Male	Black	39	Corporate Services

Annexure 3

Consent to participate in study

PARTICIPANT CONSENT FORM

Title of the Study: THE TRANSITION EFFECT FROM TRADITIONAL TO VIRTUAL OFFICE: A CASE OF THE SOUTH AFRICAN CIVIL AVIATION AUTHORITY

Researcher: Lungiswa Blanche Felicity Mantsho

Contact Information:

Email: mantshob@caa.co.za

Phone: 066 390 9311

Introduction:

You are invited to participate in an interview for a research study exploring the transition effect from a traditional office to a virtual office environment within the South African Civil Aviation Authority. The purpose of this study is to understand the experiences, challenges, and benefits associated with this transition. Your participation is voluntary, and you have the right to withdraw from the study at any time without penalty or loss of benefits. Before proceeding, please read the following information carefully and ask any questions you may have.

Purpose of the Study:

The purpose of this study is to gain in-depth insights into the impact of the transition from a traditional office to a virtual office on employees of the South African Civil Aviation Authority. The findings will contribute to a better understanding of the challenges and benefits associated with virtual office environments and may help inform future practices within the organisation.

Procedures:

If you agree to participate in this study, you will be invited to take part in a one-on-one interview with the researcher. The interview will be conducted in person or via video conferencing, depending on your preference and feasibility. The interview will focus on your experiences, perceptions, challenges, and opportunities related to the transition from a traditional office to a virtual office. The interview is expected to take approximately 30-50 minutes and will be audio-recorded for accurate data capture. The audio recording will be transcribed for analysis purposes.

Risks and Benefits:

There are minimal risks associated with participating in this study. However, some questions may ask about potential challenges or difficulties you have faced during

the transition. Your participation may benefit the organisation by providing valuable insights that can inform policies and practices related to virtual office environments.

Confidentiality:

All information collected during this study will be kept strictly confidential. Your interview data will be anonymised and stored securely. Only the research team will have access to the data. The findings will be reported in aggregate, without identifying individual participants. Pseudonyms or participant codes will be used to ensure anonymity.

Voluntary Participation:

Participation in this study is entirely voluntary. You have the right to refuse to participate or withdraw from the study at any time without providing a reason. Your decision to participate or decline will not affect your relationship with the South African Civil Aviation Authority or any associated benefits.

Contact Information:

If you have any questions, concerns, or wish to receive a summary of the study findings, please feel free to contact the researcher, Lungiswa Blanche Felicity Mantsho, at mantshob@caa.co.za or 066 390 9311. If you have any questions or concerns about your rights as a participant, you may contact the South African Civil Aviation Authority.

Consent:

By participating in this interview, I confirm that:

- I have read and understood the information provided above.
- I have had an opportunity to ask questions and have received satisfactory answers.
- I voluntarily agree to participate in this interview.
- I understand that I can withdraw from the study at any time without penalty or loss of benefits.
- I am aware that the findings of this study will be processed into a research report, journal publications, and/or conference proceedings, but that my participation will be kept confidential unless otherwise specified.
- I agree to the recording of the interviews.
- I have received a signed copy of the informed consent agreement.

Participant Name:

Participant Signature:

Date:

Annexure 4:
Ethics clearance certificate



College of Economic and Management Sciences_ERC Human Resource
Department

Date: 17/01/2024

Dear: Ms Lungiswa Blanche Felicity Mantsho

**Decision: Ethics Approval from
January 2024 to January 2027**

NHREC Registration # : (if applicable)
Ref #: 1613
Name: Ms Lungiswa Blanche Felicity Mantsho
Student #: 32724454
Staff #:

Researcher: Ms Lungiswa Blanche Felicity Mantsho

Ikahya lokundiza, Bekker Street,

Midrand

32724454@mylife.unisa.ac.za 066 390 9311

Supervisor: Prof Mariette Coetzee Coetzm@unisa.ac.za

Co-Supervisor:

Co-Researcher(s):

Email address:

**THE TRANSITION EFFECT FROM TRADITIONAL TO VIRTUAL OFFICE: A CASE OF THE SOUTH
AFRICAN CIVIL AVIATION AUTHORITY**

Qualification: MCOM: BUS MAN 98582

Thank you for the application for research ethics clearance by the College of Economic and Management Sciences_ERC Human Resource Department for the above-mentioned research study Ethics approval is granted for three years.

The **low-risk application** was **reviewed** by College of Economic and Management Sciences_ERC Human Resource Department on 3 December 2023 in compliance with the Unisa Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment. The application was approved on 17 January 2024.

The proposed research may now commence with the provisions that:

1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.
2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the College of Economic and Management Sciences_ERC Human Resource Department.
3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing, accompanied by a progress report.

5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
6. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data requires additional ethics clearance.
7. No field work activities may continue after the expiry date (January 2027). Submission of a completed research ethics progress report will constitute an application for renewal, for Ethics Research Committee approval.

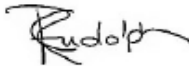
Additional Conditions

1. Disclosure of data to third parties is prohibited without explicit consent from Unisa.
2. De-identified data must be safely stored on password protected PCs.
3. Care should be taken by the researcher when publishing the results to protect the confidentiality and privacy of the university.
4. Adherence to the National Statement on Ethical Research and Publication practices, principle 7 referring to Social awareness, must be ensured: "Researchers and institutions must be sensitive to the potential impact of their research on society, marginal groups or individuals, and must consider these when weighing the benefits of the research against any harmful effects, with a view to minimising or avoiding the latter where possible." Unisa will not be liable for any failure to comply with this principle.

Note

The reference number 1613 should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.

Kind regards,



Prof E Rudolph
Chair of College of Economic and Management Sciences_ERC Human Resource Department
E-mail: rudolec@unisa.ac.za



Executive Dean / By delegation from the Executive Dean of College of Economic and Management Sciences_ERC Human Resource Department
E-mail: mogalmt@unisa.ac.za