

Contributing and Constraining Factors regarding the Implementation of Human Resource Management Onboarding During the Covid-19 Pandemic at the City of Tshwane Metropolitan Municipality in South Africa

By Jean Oberholzer*, Cecile Schultz[±] & Karel Frederick Lessing[°]

South Africa was unprepared for the work-from-home measures (computer-based work practices with technological interface) necessitated by the government's rapid lockdown and restriction of mobility during COVID-19. The accelerated adoption of technology for remote work by human resource management (HRM) practitioners resulted in challenges in online and face-to-face onboarding. Problems with internet connectivity, infrastructure, hardware and the availability of electricity hindered operations during this period. The research objective was to investigate the factors influencing the implementation of HRM onboarding practices, with a specific focus on online and hybrid onboarding approaches, within a municipal context in South Africa. This qualitative study employed an interpretive phenomenological design, collecting data through semi-structured interviews in person and via videoconferencing. It focused on HR staff and employees onboarded during the pandemic, selecting a purposive sample of 10 HR staff who were interviewed until data saturation was reached. Thematic analysis, supported by ATLAS.ti for coding, was applied to analyse information. The main findings involved the contributing and constraining factors in onboarding during COVID-19. Videoconferencing tools, paperless systems, geographical location, accessible internet document access and involvement of immediate senior managers were the identified themes of the contributing factors. Lack of Microsoft Teams software experience, lack of adopting onboarding processes, incomplete and slow induction process, no induction process, network and mobile connections, electricity load-shedding, funding, familiarity with technology, COVID-19 regulations and the availability of resources were the identified themes of the constraining factors. The research highlighted the need for the adaptation of work methods, agility and improvement of onboarding processes to ensure that onboarding continued during lockdown and remote working conditions. Managers, drawing insights from COVID-19 experiences, could refine onboarding processes for future efficiency. The research contributed to agile work methods and enhanced onboarding within South African municipalities, addressing common operational challenges.

Keywords: HRM onboarding, constraining and contributing factors, COVID-19 pandemic South Africa, state-owned company

*HRM Student, Tshwane University of Technology, South Africa.

[±]Professor, Tshwane University of Technology, South Africa.

[°]Senior lecturer, Tshwane University of Technology, South Africa.

Introduction

Onboarding, according to Byford, Watkins and Triantogiannis (2017:1-2), is the process used by organisations to support their new employees and assist them in integrating into the organisation. As a result of the Coronavirus pandemic, organisations were obliged to rethink their onboarding practices, with training taking place remotely because of work-from-home measures (Goodermote, 2020:399). Thus traditional onboarding, according to Oranburg and Khan (2020:2), was replaced with virtual onboarding, transcending traditional business models. Goodermote (2020:399) states that the challenge of virtual onboarding for organisations is that the required systems are not yet in place, necessitating their invention or further development.

According to Klein, Pollin and Sutton (2015:263), organisations worldwide make use of onboarding programmes to ensure that newly appointed employees adjust to their roles within the organisation. However, onboarding in its traditional form became invalid with the restrictions put in place during the Coronavirus pandemic (Oranburg & Khan, 2020:2). This led to the adoption of virtual onboarding, which allowed organisations to make much-needed improvements to their onboarding programmes, rendering them more effective and efficient (Oranburg & Khan, 2020:2). According to Reaves (2019:1), organisations which ensured that their onboarding programmes were implemented effectively during the pandemic will hold a significant advantage in the Fourth (Industry 4.0) and Fifth (Industry 5.0) Industrial Revolutions.

Organisations can make use of Smart Human Resources (HR) 4.0 to ensure the effective management of current and next-generation employees (Sivathanu & Pillai, 2018:1-2). For example, employee interviews and discussions can be improved through the implementation of 4G and 5G networks, as well as the use of augmented reality (AR) and virtual reality (VR), to guide an employee on the first employment day (Sivathanu & Pillai, 2018:4).

Lastly, in this study, new knowledge within the field of management sciences was obtained with specific reference to the contributing factors and constraining factors of onboarding during a pandemic on a local government level.

Research Problem and Objective

The COVID-19 pandemic impacted onboarding practices, as companies rapidly shifted to remote work and increased their reliance on digital technologies. This transition exposed several problems with remote onboarding, including inadequate network infrastructure and unfamiliarity with new technologies. Organisations faced challenges in maintaining effective onboarding processes while adapting to digital tools and virtual environments. These issues highlighted the need for more robust and flexible onboarding strategies to address the evolving demands of a digital workspace. The COVID-19 pandemic has forced a shift from traditional to virtual onboarding due to remote work requirements.

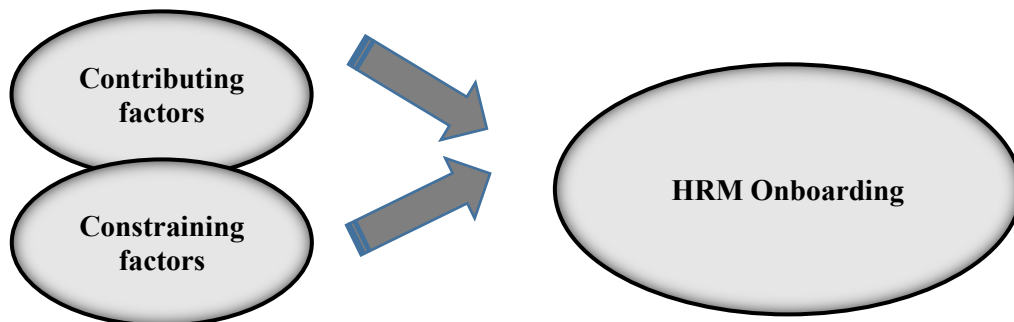
The rapid lockdown and restriction of mobility during the pandemic (COVID-19) necessitated the accelerated implementation and use of technology in work-

from-home measures to do normal work activities. South Africa was largely unprepared for working from home, for computer-based work practices and the technological interface. Several factors hampered the implementation of employee onboarding efforts, both online and face-to-face. These included a lack of internet fibre connection, network capabilities, electronic and computer infrastructure, computer hardware, internet connection and sporadic electricity load-shedding, that is, the controlled temporary reduction of electricity supply to clients for several hours a day.

Onboarding as a human resource management (HRM) process during the COVID-19 pandemic required rapid change and adaptation of existing work methods and procedures to ensure the continuation of work and HRM practices in South Africa. It is interesting to note that South Africa's population has now exceeded 63 million (Stats SA, 2024). During the COVID-19 pandemic, the population in South Africa was 58.9 million (Stats SA, 2020). The City of Tshwane Metropolitan Municipality employed 29788 permanent employees in 2019-2020 (City of Tshwane Metropolitan Municipality, 2020). This is an indication of a very large organisation and the introduction of new employees during the pandemic posed various challenges. This leads to the following research question: What are the contributing and constraining factors regarding onboarding during the pandemic in South Africa?

The objective of this research was to explore the contributing and constraining factors regarding the implementation of HRM onboarding during the COVID-19 pandemic at the City of Tshwane Metropolitan Municipality in South Africa. Figure 1 illustrates the conceptual framework for this study.

Figure 1. *Conceptual Framework*



Source: Authors' work

Literature Review

The underpinning theory used is the Contingency Theory, which will explain how organisations adapted their onboarding processes to meet the unique challenges posed by the pandemic. The Contingency Theory posits that for organisations to be effective, their HRM functions must align with both internal and external factors namely the organisation's strategy and external environment to meet organisational goals.

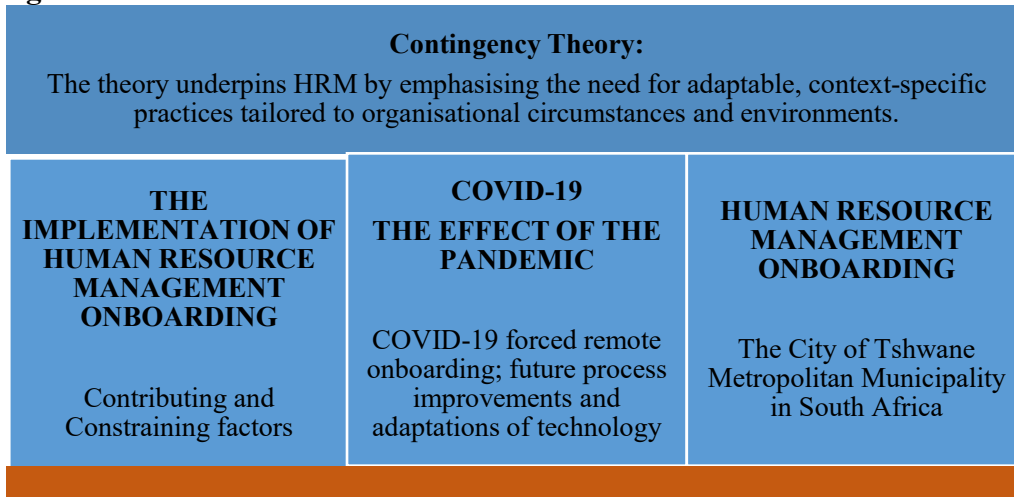
The Contingency theory in HRM focuses on two types of fit namely the external fit which refers to aligning HR practices with organisational strategy and environmental

conditions, while internal fit involves ensuring HR practices are cohesive and support a unified message (Ahmed, Mahmood, & Abdullah, 2020:15, Harney, 2023: 470). The theory highlights that HRM effectiveness is influenced by contextual factors such as organisational culture, globalisation, and company size. For example, different cultures and global contexts may require tailored HR practices, and the size of a company affects the complexity and scope of its HR functions.

The COVID-19 pandemic has highlighted the relevance of Contingency Theory by contingency strategies like remote operational policies and lean HRM policies significantly helped organisations to sustain their organisation's operations and performance in times of COVID-19 (Almohtaseb, 2022, 593). Therefore necessitates rapid adjustments in HRM practices to address new external challenges, such as remote online work, while also ensuring internal onboarding practices remain cohesive and supportive of the organisational culture, policies and procedures.

The following figure, Figure 2 depicts a summary of the the theoretical framework applicable to this study using the contingency theory.

Figure 2. *The Theoretical Framework*



Source: Authors (2024).

The literature review will now be discussed:

Onboarding during COVID-19

Ho, Hofmann and Schwaiger (2023:589) state that organisations were forced to adapt to working-from-home policies for their employees during the pandemic, thus rendering traditional onboarding obsolete during COVID-19. Fortunately, employers and employees alike put tremendous effort into transitioning onboarding to a virtual format (Rodeghero, Zimmermann, Houck & Ford, 2021:1). According to Pavlina (2020:35), this inspired organisations to improve their onboarding programmes far beyond what was needed and to prepare for the future.

Twitter announced that working from home would continue indefinitely after the COVID-19 pandemic (Rodeghero et al., 2021:1). Pavlina (2020:2) advocates enhanced work-from-home practices, noting technology firms as early adopters.

According to Rodeghero et al. (2021:2), the idea of remote onboarding is not new, with studies as far back as 2008 performed by Hemphill and Begel (2021). Goodermote (2020:400-401) adds that for remote onboarding to be successful, actions such as mimicking a working day virtually, doing detailed planning and establishing standard formats for meetings must be performed.

Onboarding during the Fourth Industrial Revolution

According to Whysall, Owtram and Brittain (2019:118), Industry 4.0 and the digital age gave rise to new technological advances. These included robotics, augmented and virtual reality, the Internet of Things (IoT), big data, 3D printing and more (Da Silva, Kovaleski, Pagani, Corsi & Gomes, 2020:89).

The Fourth Industrial Revolution is unlike the previous advancements, as it combines the physical workplace with the digital space and impacts all areas of industry and economy (Whysall, Owtram & Brittain, 2019:118-119). Due to this, it is apparent to organisations that a shift in thinking is required when discussing Industry 4.0, as the challenges facing HRM extend beyond training and development (Piowar-Sulej, 2020:104).

A consideration in the onboarding requirements of Industry 4.0 is how HR as a discipline needs to be reinvented and what changes should be made when discussing employees in the workplace (Verma, Bansal & Verma, 2020:9). This creates both an employer and personal brand, which includes the competencies, applications and adaptability of the new employee (Blštáková, Joniaková, Jankelová, Stachová & Stacho, 2020:4).

Rockwood (2020:17) proposes that the virtual onboarding process should be kept human and paperwork streamlined. During culture orientation employees are exposed to the company's mission, values, culture and working methods (Pavlina, 2020:46). Heinrichs and Rommerskirchen (2021:38) found that employees felt isolated in the virtual onboarding programme and that they would have been more visible and communicative had they been in an office.

Tech Mahindra reformed its HR processes to be more accessible, trackable and impactful within Industry 4.0 (Verma, Bansal & Verma, 2020:11). By adopting these processes early, organisations can achieve more efficient HR operations from smaller HR departments (Sivathanu & Pillai, 2018:1).

Organisations can determine which areas offer the most success for their onboarding programme and thus ensure employee retention and engagement by using self-service terminals which allow for smoother interaction with new employees and may increase their retention rate (Alharbi, Dasuki & Lin, 2021:63). Chatbots, according to Dominic, Houser, Steinmacher, Ritter and Rodeghero (2020:2), differ from software bots due to the ability of the chatbot to communicate with the new employee in human language. A well-known example of a chatbot is Apple's Siri system, found in devices such as the iPhone and iMac. The use of chatbots in onboarding has the added advantage of speeding up the onboarding process and spending less time mentoring new employees (Alharbi, Dasuki & Lin, 2021:63). Watthanabut (2019:813) found that there was a positive relationship between the

use of onboarding for talented employees and the supply chain flexibility of the organisation.

Contributors towards Onboarding for the Fourth Industrial Revolution

Onboarding during the Fourth Industrial Revolution is assisted through using technology during the employee recruitment process and in the employee reward system, as well as through implementing virtual data rooms for use by employees in the organisation.

Various technological processes can be made use of during recruitment such as blockchain technology, artificial intelligence and robotic process automation.

Blockchain technology – Onboarding during the Fourth Industrial Revolution is assisted by blockchain-based HRM systems (Gan & Yusof, 2019:621-622). Furthermore, Sivathanu and Pillai (2018:4) state that HR is assisted through the generation of real-time data, as well as the immense capacity of cloud-based storage. The use of new technologies in the recruitment process also allows the HR department to make decisions which can lead to a decrease in overspending (Gan & Yusof, 2019:621-622).

Artificial intelligence – The use of AI and big data assists the HR department in selecting talented employees by filtering out and disqualifying employees who do not meet the requirements, thereby reducing the time spent on selection (Gan & Yusof, 2019:621-622). According to Sivathanu and Pillai (2018:4), AI and big data help reduce the time spent by the HR department on recruitment and selection.

Robotic process automation (RPA) – This can be best described as an office automation solution which has grown in popularity in recent years and can be used for various processes, in particular HR. RPA supports onboarding and selection processes by performing a verification check on the background of a shortlisted employee (Axmann & Harmoko, 2020:559-560). For example, Tech Mahindra makes use of an AI platform called Acumos (Verma, Bansa & Verma, 2020:10) which, amongst others, filters the profiles of potential job candidates from the job applicant database. Furthermore, these systems may assist the employee by completing application forms, ensuring that a candidate's data are transferred to the database of the organisation, as well as sending notifications to the candidate (Axmann & Harmoko, 2020:559-560). The benefit of RPA use lies in the fact that it frees up the HR department to focus on person-oriented tasks such as ensuring that the onboarding process is performed correctly (Axmann & Harmoko, 2020:560-561). Moreover, Verma, Bansal and Verma (2020:10) found that by using intelligent automation organisations might see a decrease of 60% in their average handling time.

Virtual data room (VDR) – Organisations can seamlessly transition to onboarding within an online space by using a virtual data room to store and organise digital files, ensuring that all new employees have access to the required documentation (Oranburg & Khan, 2020:11-13). VDR can be seen as one component of HRIS, described by Verma and Rana (2021:2247) as the intersection of information technology and human resources. VDR applications are currently available on the market, with iCloud, DropBox and Microsoft OneDrive being examples of commonly used VDR systems (Oranburg & Khan, 2020:11-13). According to Verma and Rana (2021:2250),

cloud-based software such as Dropbox can be viewed as SAAS, or Software as a Service, and has seen implementation in recent years.

Constraints towards Onboarding for the Fourth Industrial Revolution

Just as onboarding is assisted by technology during the Fourth Industrial Revolution, it is also constrained by the difficulty of onboarding virtual work teams which are geographically dispersed.

Difficulty in onboarding virtual teams – Aside from the lack of literature on the onboarding of virtual teams, it was found that onboarding virtual teams reduced opportunities for informal communication with other team members and that members who worked remotely felt left out at times (Hemphill & Begel, 2021:2). This lack of spontaneous interaction between employees took away any opportunity to create trust during informal situations (Allard & Cagenius, 2021:55).

Onboarding practices which are viewed as “normal”, such as small talk before meetings, impromptu questions or lunch with fellow employees, rarely or never occur within virtual teams (Hemphill & Begel, 2021:2). This spontaneous small talk, according to Allard and Cagenius (2021:55), is very difficult to recreate in a virtual space and exacerbates the lack of interaction among team members. The deficiency in informal communication negatively impacts the social relationships among team members and disrupts the onboarding process (Hemphill & Begel, 2021:2). New employees may not fully comprehend the way their performance will be evaluated by both their peers and their supervisor (Hemphill & Begel, 2021:2).

According to Allard and Cagenius (2021:55), a decrease in opportunities for socialising may result in new employees forming wrong impressions of their new jobs and team members. Lastly, since new employees in a virtual team are remotely located, it can make it difficult for their team members to observe and guide them through the onboarding process (Hemphill & Begel, 2021:2). Similarly, Fourie et al. (2023:41) state that in a short timeframe, HR personnel – who were woefully unprepared for the change – had to adopt measures to onboard candidates.

Effect of load shedding and network infrastructure – As the Fourth Industrial Revolution relies on a digital environment, adequate access to electricity will determine the effectiveness of any online onboarding process. The supply of electricity not only affects the adoption of new technologies, but also the prerequisite network infrastructure (Olaitan, Issah & Wayi, 2021:8). South Africa’s sole electricity provider, Eskom, cannot ensure a constant supply of electricity and often the country’s economy is hampered by the implementation of load shedding. Thus, an irregular supply of electricity hinders all online onboarding efforts.

It is clear from the above literature review that there is limited research conducted on the contributing and constraining factors regarding the onboarding process during the pandemic in a South African local government environment. During COVID-19, organisations adapted by moving onboarding online, using tools like chatbots and Virtual Data Rooms (VDRs). The Fourth Industrial Revolution further advanced onboarding through blockchain, AI, and robotic process automation (RPA), enhancing recruitment and HR processes.

The theoretical gap in onboarding for the Fourth Industrial Revolution includes insufficient research on effectively onboarding virtual teams and the impact of infrastructural issues like unreliable electricity on digital onboarding processes. The theoretical gap highlights the need for research methods other than the closed-ended quantitative research approach, such methods may not be sufficient in obtaining new and rich data about the onboarding phenomenon during a pandemic.

Research Method

Research Design

A qualitative research method was implemented for this research, within an interpretive phenomenological research paradigm. An exploratory research design was used because there was little research available on onboarding during COVID-19. This study was cross-sectional in nature. This open-ended approach allowed for rich data to be obtained.

Sample

As mentioned before, the municipality where the study was conducted recorded 29 788 permanent employees in 2019-2020, with 222 staff members working in the Group Human Capital Management department (City of Tshwane Metropolitan Municipality, 2020:181-182). According to Crouch and McKenzie (2006:432), by using a smaller sample with fewer than 20 participants, new insight into the phenomenon can be obtained. Purposive sample using inclusion criteria was used to identify the the HR staff members who worked with onboarding during the pandemic. The following inclusion criteria were used:

- Permanently employed HR staff in the Group Human Capital Management department within the City of Tshwane Metropolitan Municipality.
- HR staff members who worked with onboarding during the pandemic.

A total number of 10 participants fit these inclusion criteria. Saturation of data was taken into consideration and no new information was gathered in interview number 10.

Measuring Instrument

Data Collection

The data collection method chosen for this research was semi-structured interviews conducted using Microsoft Teams. The interviews were recorded and transcriptions were stored for record purposes (Bless, Higson-Smith & Sitole, 2013:340-341). The open-ended interview questions were aligned with the research objective and the literature review of the study. The following questions were posed during the interview:

- Can you kindly elaborate on your experience making use of onboarding processes during the COVID-19 pandemic?
- In your opinion, what are the constraints (hindering factors) that hindered onboarding during the COVID-19 pandemic within the municipality?
- In your opinion, what are the contributors (helpful factors) that assisted onboarding during the COVID-19 pandemic within the municipality?
- Do you have any other comments or remarks related to this study?

Data Analysis

The thematic analysis approach described by Tesch (1990) was used to analyse the primary data (interviews). More specifically, the six-phase analytical process of Byrne (2022) was used to analyse the data.

Phase 1: Familiarisation with the Data

This phase enables the researchers to identify suitable and essential information applicable to the research objectives. Following the completion of data collection, the researchers went through all of the transcripts to identify any interesting passages. After the researchers listened to the recorded interview data repetitively, the data were verbatim transcribed and uploaded on ATLAS.ti® version 22.

Phase 2: Generating Initial Codes

Inductive coding was used as new codes were found in the transcripts and deductive codes that were derived from the literature review were also used. A combination of inductive and deductive coding, referred to as a blended approach, is most commonly used (Graebner, Martin & Roundy, 2012:280). There is a strong tradition in qualitative research of developing codes “directly” from the data. For this research, the researchers developed codes by using the phrases or terms of the participants themselves rather than the theoretical vocabulary of the researchers. In this way the codes stayed close to the data, mirroring what was in them rather than the ideas and prior understandings of the researchers, who exercised vigilance to remain open-minded (Skjott Linneberg & Korsgaard, 2019:260). This is most often referred to as the inductive approach. Generally, the codes in deductive coding are theoretical concepts or themes drawn from the existing literature. The researchers began the initial coding process by coding each piece of information that might be useful in addressing the research questions using ATLAS.ti®. After multiple familiarisations with the data, the researchers were able to decide on codes that could help interpret the themes and those that could be discarded.

Phase 3: Generating Themes

After coding all related data items, the researchers examined the data to ascertain how various codes might be combined by shared meanings to create themes or sub-themes.

Phase 4: Reviewing Potential Themes

Codes and themes may be revised or removed at this phase to yield a relevant and significant interpretation of the data; as such, it would be necessary to code more

data items, combine or remove some codes or even promote some codes as sub-themes or themes.

Phase 5: Defining and Naming Themes

At this stage, the researchers defined each theme and sub-theme concerning the dataset and the research question. This includes choosing which data items to use as extracts when summarising the analysis' findings and submitting the themes' names for a final review.

Phase 6: Producing the Report

This phase can be seen as the completion and final inspection of the report, which the researchers would most likely have begun writing even before undertaking the thematic analysis. Qualitative research is considered difficult to publish because the methods followed are not detailed and trusting the approach used presents a hurdle (Lemon & Hayes, 2020:604).

It is therefore essential that before producing the report, the quality of the process needs to be ensured by checking the trustworthiness. Rose and Johnson (2020:3) state that trustworthiness refers to the rigour of the research design, the credibility of the researchers and how applicable the research methods used are. Furthermore, trustworthiness ensures that qualitative research remains a viable methodology within the academic world. The criteria of credibility, transferability, dependability, conformability and reflexivity are key to establishing trustworthiness (Korstjens & Moser, 2017:2; Lemon & Hayes, 2020:605). Trustworthiness involves the elements of credibility, dependability, confirmability and transferability (Bless et al., 2013: 236):

- Credibility was established through peer debriefing and member checks (Madill & Sullivan, 2018:322). Peer debriefing involved a disinterested peer – someone who was not involved in the research project – to aid in probing the researchers' thinking around all or parts of the research process. Member checking was done by providing the research participants with a summary of the findings.
- In the interests of dependability the study used a transparent process of coding to ensure that the research process was logical, traceable and documented (Sinkovics & Alfoldi, 2012:819).
- Korstjens and Moser (2017:2) state that conformability is the extent to which other researchers can confirm the findings within the study performed, through the same or similar methods used.
- Transferability is described by Nassaji (2020:428) as the extent to which the conclusions of a research study can be transferred to a situation which is similar in context. Transferability must provide the researchers with sufficient detail for a transfer to be possible.

Ethical Considerations

The researchers adhered to guidelines offered by Greeff (2020:1) for conducting qualitative research during the lockdown and social distancing period. This entailed the researchers engaging with the gatekeepers or contact persons of organisations via email to abide by social distancing rules. Furthermore, participants needed to have internet access so that the informed consent letter could be e-mailed to them (Greeff, 2020:1). Each participant received a number to protect their identity.

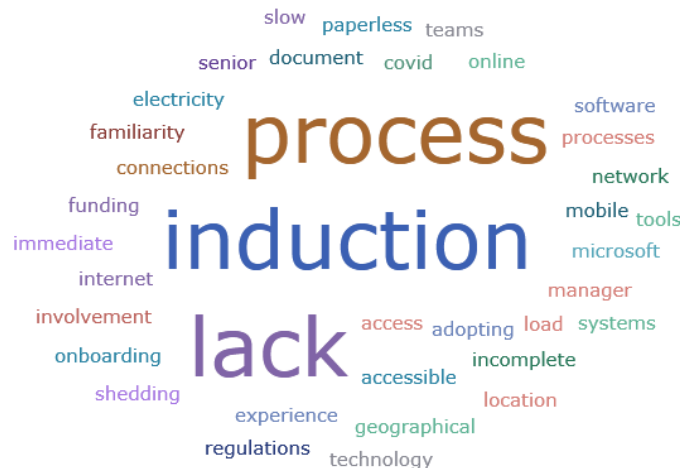
During this research, various ethical guidelines were followed to protect both the researchers and the participants. These guidelines included an ethical review, informed consent and voluntary participation, anonymity, discontinuance, no deception, reporting back to research participants and the publication of research findings.

Findings

During the data analysis process, themes were identified as contributing and constraining factors in onboarding during COVID-19. A word cloud was generated using ATLAS.ti, presented in Figure 3, shows the most prominent words from this study: "process," "induction," and "lack". In ATLAS.ti, a word cloud visually represents text data, highlighting the frequency of words used in the qualitative analysis. The size of each word indicates its frequency and enables quick identification of key themes or concepts within the data.

A summary of the themes is presented in Table 1.

Figure 3. Word Cloud of the findings on ATLAS.ti



Source: Authors work

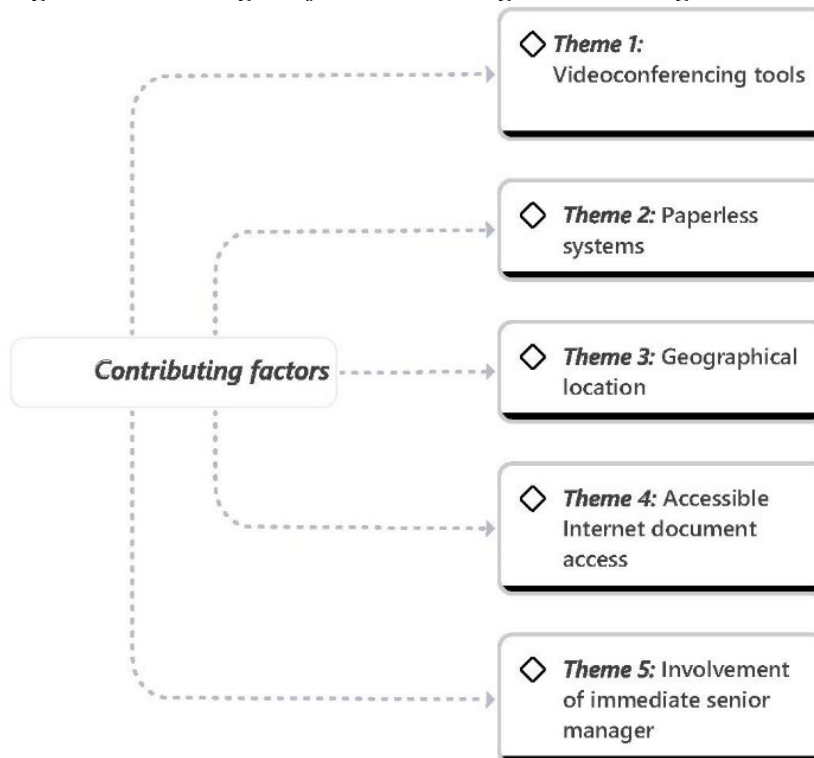
Next, tree diagrams for contributing and constraining factors using ATLAS.ti are presented in the findings.

In ATLAS.ti, a tree diagram is a visual tool used to represent relationships among various concepts, categories, or themes in qualitative research. In this study, the tree diagrams below illustrate the contributing and constraining factors (Figures 4 and 5) that influenced human resource management onboarding during the COVID-19 pandemic at the City of Tshwane Metropolitan Municipality. By organising these factors into categories, these diagrams highlight the complex relationships that either supported or hindered the onboarding process. This analysis provides valuable insights, enabling targeted interventions to strengthen positive aspects and address challenges, ultimately improving onboarding effectiveness.

Contributing Factors

Contributing Factors refer to the elements that facilitated or enhanced the onboarding process during the COVID-19 pandemic, with the purpose of this section being to identify and analyse these supportive elements so organisations can build on their strengths and improve their onboarding practices.

Figure 4. Tree Diagram for Contributing Factors using ATLAS.ti



It is clear from Figure 4 that five contributing factors supported the onboarding process during the pandemic. Each theme is discussed below using the direct quotes of the participants and discussion.

Theme 1: Videoconferencing Tools

Videoconferencing tools assisted the City of Tshwane Metropolitan Municipality to continue working in an online space, which included the continued onboarding of newly hired employees. The verbatim quotations below give a comprehensive description of the benefits of videoconferencing tools in employee onboarding processes:

Participant 3:

“Currently we have technology at our disposal and one other thing that I’ve actually forgotten. Sometimes we normally do induction at Pretoria West and then as a newly employed person in this city is actually based in, let’s say Cullinan or Hammanskraal. Sometimes transportation becomes a challenge. And how do we actually rectify that? Because that is a hindrance. But to actually overcome that, how can we do that? We can make use of what technology for those who could not actually make it. Therefore, make technology available for those who are very far away, and then for those who can be able to go physically into the venue where induction is taking place. Let them actually go there.”

Participant 5:

“In other words, what they try to do is to work with individuals rather than working with groups until the technology was available. You know, teams and so on.”
“You know, we all use Microsoft Teams to do our meetings and even today people sort of, they don’t want to engage in large groups. They tend to favour you know, the Teams meetings.”

Theme 2: Paperless Systems

The quotations clearly show that videoconferencing tools were comprehensively used to onboard new employees during the COVID-19 period and that the use of videoconferencing tools such as Microsoft Teams was commonplace even after COVID-19 regulations had been relaxed.

Paperless systems contributed to increased efficiency within onboarding programmes in the municipality and reduced the reliance on physical documents. The following verbatim quotations demonstrate the advantages of paperless systems in the municipality, as well as the benefits of implementing a paperless system:

Participant 1:

“I think the people I think the city council has started to see that one has to go more electronically oriented, like uhm first of all, it was just paperwork. Papers, papers, papers, so paperless I think became a big uhm factor.”

Participant 7:

“I think the paper trail is definitely reduced and it has made the onboarding process seamlessly.”

Based on the quotations, it can be said that utilising a paperless system has proved to be beneficial for the municipality, with a preference for an electronic instead of a physical filing system.

Theme 3: Geographical Location

Online onboarding allowed the municipality to onboard new employees who were not in Pretoria or could not travel to Tshwane House. The following verbatim quotations provide context for the use of online onboarding processes and how these processes allowed for the onboarding of employees who were geographically dispersed:

Participant 8:

"I don't think we will ever go back for totally or do away with Teams you know, because if we advertise there are people staying in Cape Town that we shortlisted, and you know and Durban it's fruitless expenditure to fly the people up here you know."

Participant 10:

"... what we talked about earlier as well to say when people come for induction also it's quite costly and sometimes you get more than 100 people in one venue which is it's health wise not ok, it also means that we also need to adopt an online induction programme that maybe we would invite people online, people with log in wherever they are."

As can be seen from the quotations, utilising an online onboarding system allowed new employees to be onboarded, irrespective of where they lived. If the employee was connected to the internet, the onboarding process could occur.

Theme 4: Accessible Internet Document Access

The use of an intranet system within the municipality reduced the costs related to printing booklets of information, as well as ensuring that there is a repository where information is located for access by the employee, regardless of their geographical location. The following verbatim quotations highlight the need for an intranet system, as well as its benefits within the municipality:

Participant 5:

"...so the biggest factor I think is making available the hardware and the network anywhere, so that people don't need to travel to get to information you know they can access the information anywhere from anywhere whenever they want to".

Participant 7:

"You could probably set up some form of files that you can create to say 2023 onboarding you can divide it into like correct naming, convention so that when you go and look for the documents it's easy for you to find. So, there are definitely benefits. We're no longer printing or killing trees anymore, it's easy for us to share the documents because if it's a contract that we have printed and they signed it in the old days you would need to share it with someone who is in another office, you would have to think about scanning and making another copy. If it's online, all you do is just forward it to the relevant person."

As the quotations indicated, the use of an intranet system reduces the need for new employees to travel to receive information, as well as allowing them to access the information wherever they are. Information can also be shared with colleagues and employees alike a lot more easily and quickly, with online signatures being used in place of physical ones. An intranet system has the added benefit that fewer trees

are being used to produce paper, thereby making a small contribution to the conservation of forests.

Theme 5: Involvement of immediate senior manager

During COVID-19 new employees were onboarded in their particular departments by their immediate supervisors, using department-specific onboarding. The following verbatim quotations highlight the use of department-specific onboarding within the municipality and how this became a common theme during COVID-19:

Participant 3:

“So I don't think there was something that happened that I could say it was positive except the fact that the immediate seniors will actually induct the newly appointed individuals.”

Participant 10:

“...but from then the individual will go to their various departments where they were appointed, then they will also be inducted in that department via the job specific. Meaning basically what is it that they are going to do on that job, so they will be orientated or inducted on that particular job that they will be doing. So basically, that's how we would conduct inductions.”

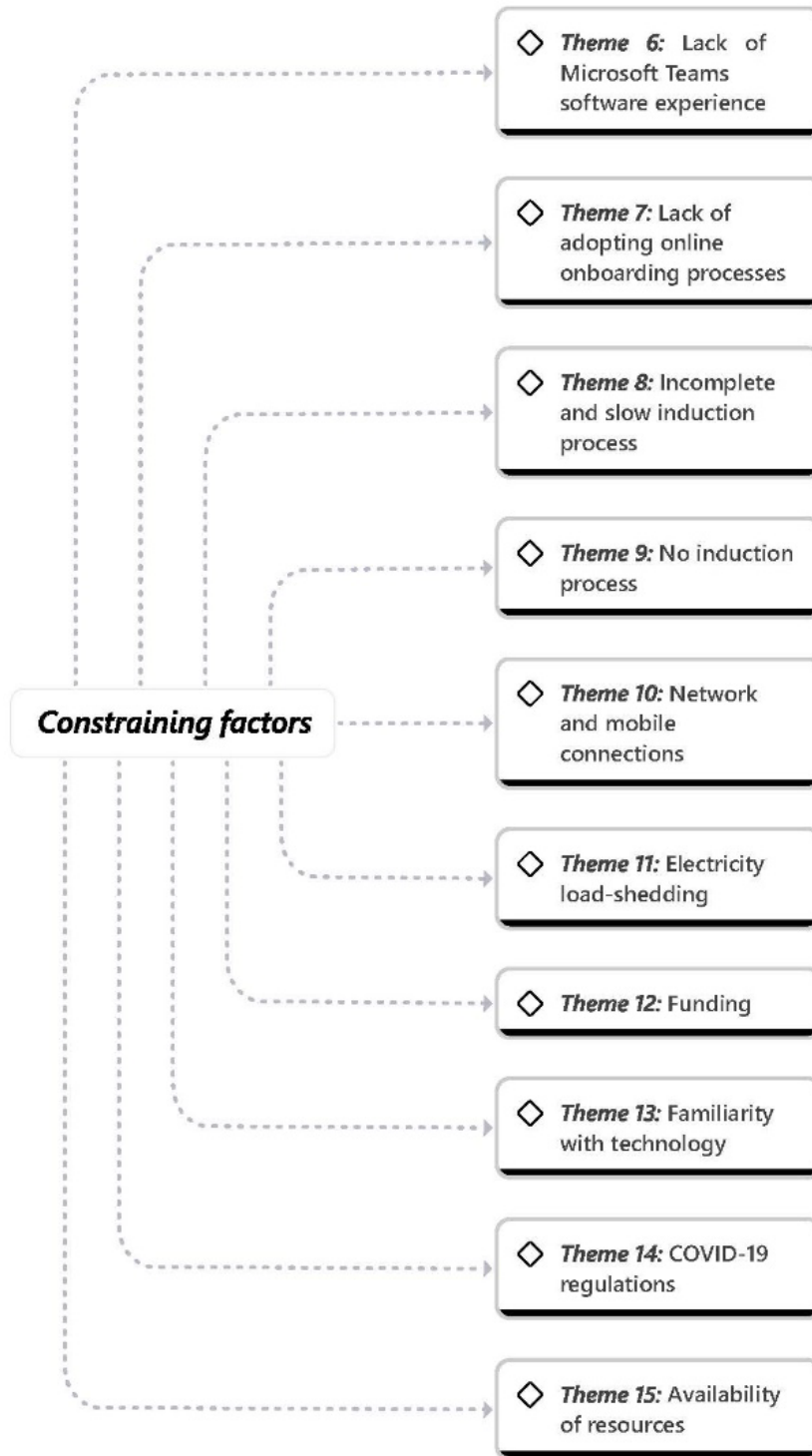
As the quotations show, during COVID-19 it became common for employee onboarding to occur within the department itself, where the immediate supervisor of the new employee conducted the onboarding process.

Constraining Factors

Constraining factors highlight the challenges or obstacles that hindered successful onboarding during the COVID-19 pandemic, with the purpose of this section being to identify and examine these barriers to help organisations recognise what went wrong and how to address or mitigate similar issues in the future.

It is clear from Figure 5 that more constraining factors hinder the onboarding process during the pandemic than the contributing factors that assisted this process. Each theme is discussed below using the direct quotes of the participants and discussion.

Figure 5. Tree Diagram for Constraining Factors using ATLAS.ti



Theme 6: Lack of Microsoft Teams software experience

The majority of the newly appointed employees did not have any Microsoft Teams software experience and this was a constraint during the onboarding process. The following verbatim quotations illustrate the problems encountered with the use of Microsoft Teams at the onset of COVID-19:

Participant 6:

"I remember I've never heard of Teams before COVID-19 ever and I remember it was like Monday we having meetings from Teams and we trying to figure out what is this Teams."

Participant 7:

"...if you are onboarding 80 member that is not used to working with online systems, and so they have never been introduced to Teams that can be a problem."

The quotations are a clear indication that not all employees of the municipality adapted easily to the use of Microsoft Teams. This created a problem for the HR staff to successfully complete the onboarding process.

Theme 7: Lack of adopting online onboarding processes

As with videoconferencing tools, many employees of the municipality were not familiar with online programmes, having mainly done face-to-face onboarding, therefore the implementation of online onboarding measures proved problematic at the onset of COVID-19. The following verbatim quotations identify the problems experienced in the municipality when conducting online onboarding with new employees:

Participant 7:

"Look you onboard a person online they're not responding and you're not sure whether they're not responding because they have not received the documentation, or they have not responded because they've got another offer. So those could be some of the challenges and you could try as much as to do follow-up emails for a person to respond to say I've accepted the offer or not, but it becomes difficult to ask. If you have it in person, it is very easy to call a person in and they easily pick up a line."

Participant 9:

"I think it was a total new experience for everybody. We were not used to that, and it was like everything else in COVID-19 it was quite a steep learning curve. There are Teams an apparently is user friendly even sometimes today I myself struggle with some of the technicalities and functions. I think everything was geared for face-to-face meetings and face to face interaction or really written interaction only through Outlook, so it was quite a learning curve for everybody."

The quotations indicate that there was an interpersonal communication problem when utilising online onboarding and that its use was new to all members of the municipality. This presented a steep learning curve for many employees, forcing them to become acquainted with and proficient in the use of Microsoft Teams as well as the online onboarding process.

Theme 8: Incomplete and slow induction process

Onboarding processes were shortened or reduced due to COVID-19 regulations being implemented. This proved to be detrimental to new employees in the municipality. The following verbatim quotations provide context on the decisions made to shorten or reduce onboarding processes and the effect of these decisions:

Participant 3:

“What happened with the induction during COVID-19 was that those newly and there were very few those newly appointed candidates were actually inducted by their immediate seniors and then some telephonically. This is what was happening so induction was actually limited. It was a streamlined to only focus on the benefits and all those things.”

Participant 3:

“Those are the kind of aspect that induction should focus on and unfortunately during COVID-19 they were not actually that much of that focus because inductions should be about speeding up the newly employed people into the system so that they get used to where to find what at whatever time and they know the organisation.”

The quotations indicate that the shortened onboarding processes had a detrimental effect on employees. Onboarding was changed to only focus on the benefits offered to employees. Shortened onboarding processes created the problem of employees who underwent onboarding at the onset of COVID-19 but were still not fully onboarded by the year 2023.

Theme 9: No induction process

In some instances, the entire onboarding process in the City of Tshwane Metropolitan Municipality was halted because of COVID-19. The following verbatim quotations highlight the fact that onboarding was discontinued in various instances:

Participant 2:

“It’s induction was just completely discontinued.”

Participant 10:

“Not that I know of because there was no induction that happened online.”

The quotations indicate that onboarding was wholly discontinued in some departments of the City of Tshwane Metropolitan Municipality.

Theme 10: Network and mobile connections

A lack of network infrastructure and stable mobile connections detrimentally impacted onboarding and work-from-home efforts in the City of Tshwane Metropolitan Municipality. The following verbatim quotations clearly show the effect of a network infrastructure and mobile connections that can be seen as lacking throughout the city:

Participant 3:

“... then secondly, access to internet and technologies could have actually assisted, but a lot of people were not actually having that access to this kind of technologies.”

Participant 10:

“... and in the candidate space, because for us we conducted interview here in Tshwane house and we never had any load shedding or connection problems. So, connection problems were largely on the side of the interviewees.”

It is clear from the quotations that employees did not have adequate access to fast and reliable networks in their area. However, the network connectivity problems apparently for the most part plagued only interviewees and new employees undergoing online onboarding.

Theme 11: Electricity Load-shedding

Loadshedding played a significant part in online work not being done during COVID-19 and continues to detrimentally affect all instances of online onboarding, as well as online work. The following verbatim quotations highlight the effects of loadshedding on the connections of employees:

Participant 9:

“My experience is that wi-fi sometimes doesn't properly work if you've got other loadshedding my experience is that wi-fi really has a problem with that sometimes even cell phone connections are bad.”

Participant 10:

“The only issue that arose I think it was connection problems lately, maybe due to loadshedding that occurred.”

From the quotations it is clear that the wi-fi and cell network connections of personnel of the City of Tshwane Metropolitan Municipality were negatively affected by the implementation of loadshedding stages. As a result of the networks being unavailable, online onboarding could not occur.

Theme 12: Funding

The City of Tshwane Metropolitan Municipality is in a difficult financial position, which has affected its ability to provide the required resources for online onboarding and necessitated a hiring freeze. The following verbatim quotations address the financial well-being of the City of Tshwane Metropolitan Municipality and the effect of the financial shortcomings of the municipality:

Participant 2:

“That's what we usually did, but from COVID-19 it's not happening anymore because we're not hiring people anymore. The death simple reason, the city council doesn't have finances to hire people.”

Participant 4:

"... because most of the buildings weren't sanitized and there weren't the necessary safety measures in place, we couldn't accommodate all of them. So, there was quite a bit of funding... Funding was an issue in terms of the PPS."

The abovementioned quotations indicate that the municipality did not have the required funding to hire employees, which caused a hiring freeze. Furthermore, funding was unavailable for PPS, which resulted in buildings leased by the municipality not being used, as there was no funding available for adequate safety measures to be implemented.

Theme 13: Familiarity with Technology

Employees were not wholly familiar with the technology which was implemented during COVID-19, with many of them struggling to adapt to and become comfortable with using both the hardware and the software. The following verbatim quotations highlight the problems faced by employees of the municipality in terms of becoming familiar with technology:

Participant 3:

"... secondly the technology people were not that much clued-up about this kind of technology where you and I can still talk even though we haven't met face to face. So, we we're not familiar with that."

Participant 6:

"... it's a lot it's an adaption not everybody is comfortable with, you know with laptops and digital things, even though you're working I'm struggling even now with my current job."

It is clear from the quotations that many employees were not prepared to use the technology implemented during COVID-19, in particular the use of software such as Microsoft Teams. Furthermore, some employees were still struggling to gain mastery of the technology that they used daily.

Theme 14: COVID-19 Regulations

The regulations introduced by the government due to COVID-19 halted face-to-face onboarding efforts and also resulted in work not being performed in the offices of Tshwane House or the satellite offices. The following verbatim quotations address the effect of COVID-19 regulations put in place by the government:

Participant 3:

"During lockdown, people were not allowed to come to work. So, it was very much impossible for people to come for induction."

Participant 4:

"We did it in smaller scales and we broke it up instead of a big group, for example, now two per hour or two a half hour to accommodate everyone due to social distance and let's still keep it in touch with the COVID-19 regulations."

Participant 5:

“It was basically the restrictions that you had that you could not, you know, work with groups within a confined space.”

The abovementioned quotations indicate clearly that social distancing halted face-to-face onboarding processes at the beginning of COVID-19 and that the processes had to be adapted to smaller groups to adhere to pandemic regulations.

Theme 15: Availability of resources

The regulations introduced by the government due to COVID-19 halted face-to-face onboarding efforts and also resulted in work not being performed in the offices of Tshwane House or the satellite offices. The following verbatim quotations address the effect of COVID-19 regulations put in place by the government:

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Participant 4:

“We did it in smaller scales and we broke it up instead of a big group, for example, now two per hour or two a half hour to accommodate everyone due to social distance and let’s still keep it in touch with the COVID-19 regulations.”

The abovementioned quotations indicate clearly that social distancing halted face-to-face onboarding processes at the beginning of COVID-19 and that the processes had to be adapted to smaller groups to adhere to pandemic regulations.

Discussion

There are numerous studies on employee onboarding. While many organisations remain anonymous, some either explicitly or indirectly refer to their involvement in onboarding studies. Research by Caniac (2018:38-39) indicated that there was a need for increased investment in organisational onboarding programmes and for ensuring that technology was improved for personnel dedicated to managing the programme.

For example, employee onboarding studies have been performed in the academic libraries of the University of Pretoria and Tshwane University of Technology (Nyakale, 2016). Other studies have been conducted in the eThekweni Municipality (Sithole, 2019), as well as Microsoft (Rodeghero et al., 2021:1), Ikea (Karintaus, Kontor, Raudaskoski & Eronen, 2020), Otis (Skolasky, 2022) and Electronic Arts (Zaeske, 2019). These studies showcase global research, employing diverse technologies and methods in the context of a web-centric world. Common factors across organisations include effective employee socialisation, performance expectations, communication, learning, development, work-related documentation and technology integration for work-related information.

Bhakta and Medina (2020:1) maintain that organisations can utilise mentors throughout the entire onboarding process. This helps new employees to build relationships and adjust to their roles more effectively.

The objective of this study was to explore the constraints and contributions relating to onboarding during COVID-19, as well as those relating to the future use of onboarding in the municipality.

The following contributing and constraining factors were identified in this current study and are now discussed and compared with those of previous findings although previous findings on these onboarding factors during a pandemic were limited.

Contributing factors

The findings on contributors to the onboarding process during COVID-19 are discussed below. These contributors include videoconferencing tools, paperless systems, online onboarding, an intranet system, department-specific onboarding, improving existing onboarding processes, face-to-face onboarding and the availability of resources.

Theme 1: Videoconferencing Tools

Many participants adapted to the use of videoconferencing tools during COVID-19, with two participants indicating that videoconferencing was still favoured and used to great effect. This finding in this current study concurs with research conducted by Liu, Frenette Beltran, Passi and Pitoulis (2021:27), who found that virtual meetings and training had been helpful to families and new employees who were geographically dispersed or might have had issues with transportation.

Theme 2: Paperless systems

Participant opinions on paperless systems were generally positive, with indications that a paperless route in the City of Tshwane Metropolitan Municipality could ensure seamless implementation of onboarding. This coincides with the research of Liu et al. (2021:27) also found that a paperless system improved organisation and accessibility and saved time and this concurs with theme 2 of this current study.

Theme 3: Geographical Location

Participants were generally positive about onboarding in an online space, especially in light of the convenience factors of reduced travelling requirements and costs. This finding is in alignment with the study of Katerere (2022:12), who noted that COVID-19 assisted organisations in South Africa by accelerating the implementation of online onboarding, thereby allowing employees who were geographically separated to be onboarded.

Theme 4: Accessible Internet Document Access

The use of an intranet system was seen as favourable to the City of Tshwane Metropolitan Municipality because it removed the need to print booklets and consequently saved money. New employees could download only the information

they required, making it easier for them. Steifo and Thomasson (2023:25) found that the organisation's intranet system contained onboarding-specific information for new employees like a personnel handbook, information on the company, an email signature template and an onboarding checklist. This concurs with the findings of the current study.

Theme 5: Involvement of immediate supervisor

Participants highlighted that onboarding was performed in the department by the employee's direct supervisor. This finding concurs with the with the research Conducted By Arsamakov (2022:8) Who Found Role-Specific Onboarding Was Conducted by higher-ranking and more experienced managers.

Constraining Factors

The findings on the constraints to the onboarding process, both during COVID-19 are discussed below. These constraints include the use of videoconferencing tools, online onboarding, onboarding being shortened/reduced, onboarding halted, network and mobile connections, the effect of loadshedding and the lack of funding.

Theme 6: Lack of Microsoft Teams Software Experience

No previous findings were found that concurred or deviated from this finding of participants not having Microsoft Teams experience as part of online onboarding.

Theme 7: Lack of adopting online Onboarding Processes

Several participants indicated that online onboarding presented a steep learning curve to employees in the City of Tshwane Metropolitan Municipality. This agrees with findings by Fourie et al. (2023:41) that the HR department had to adapt quickly to changing working conditions which caught both new employees and existing personnel unawares, leading to difficulty in integrating into the organisation.

Theme 8: Incomplete and Slow Induction Process

Various participants indicated that onboarding processes were shortened or reduced due to the implementation of COVID-19 regulations. This resulted in new employees not being onboarded fully into the municipality. The research by Fourie et al. (2023:41), namely that new candidates had to be onboarded within a very short timeframe, which led to vast inefficiencies in their onboarding experience is in alignment with this current study.

Theme 9: No Induction Process

Two participants informed the researchers that onboarding processes in the municipality had been halted completely and there was no active induction process. Ho, Hofmann and Schwaiger (2023:589) found that many firms had to shut down all in-person functions and operations as a result of the lockdown regulations and this concurs with the findings of this current study.

Theme 10: Network and Mobile Connections

Two participants informed the researchers that onboarding processes in the municipality had been halted completely. This is in alignment with the research results of Ho, Hofmann and Schwaiger (2023:589) that many firms had to shut down all in-person functions and operations as a result of the lockdown regulations.

Theme 11: Electricity Load-shedding

Load-shedding of electrical supply was identified as detrimental to onboarding during COVID-19. This is because cell towers do not have the required battery backup capacity to remain working and effective during extended load-shedding periods. Furthermore, if employees and the municipality do not have a backup system for their computers, it is improbable that online onboarding will be conducted. Olaitan, Issah and Wayi (2021:8) found that load-shedding makes it difficult for business entities in South Africa to adopt technologies required for the Fourth and Fifth Industrial Revolutions and this is alignment with the findings of the current study. Ensuring stable access to electricity brings about energy security, which is crucial for the utilisation of new technologies such as online onboarding.

Theme 12: Funding

Multiple participants indicated that the precarious financial position of the City of Tshwane Metropolitan Municipality hampered hiring efforts during COVID-19, as well as the introduction of new technology. A hiring freeze was implemented due to a lack of funding which could be attributed to a reduction in tax revenue during the COVID-19 period. This shortfall resulted from a ban on the sale of alcohol and cigarettes; retrenchments; a reduction in imports and customs duties; and a loss of revenue from fuel levies due to the diminished need to travel during the lockdown (De Villiers, Cerbone & Van Zijl, 2020:6) and this is in alignment with this current study.

Theme 13: Familiarity with Technology

The interview process made it clear that not all employees were technologically apt, with several employees having difficulty understanding the technology implemented during COVID-19. Olaitan, Issah and Wayi (2021:8) found that the current curriculum used in higher education should incorporate learning outcomes related to the digital literacy and digital skills of South Africans. This is in alignment with this current study in the sense that there is a lack of familiarity with technology among the participants. This would ensure that technologies relevant to the Fourth Industrial Revolution are more successfully adopted in South African organisations.

Theme 14: COVID-19 Regulations

The implementation of COVID-19 regulations required onboarding processes to make adjustments which were not for the better. COVID-19 regulations disrupted nearly all onboarding processes, especially through the implementation of social distancing measures. Scott, Gu, Deepak and Wildman (2021:3) confirm that COVID-19 affected the physical workplace: common work areas had limited accessibility

and employee activities were hampered by the implemented measures and this is in alignment with this theme of the current study.

Theme 15: Availability of Resources

Many participants echoed the sentiment that lower-level employees were not given computers and laptops, while senior-level employees were given the required hardware to undergo online onboarding. This concurs with the finding by Olaitan, Issah and Wayi (2021:7) that South Africa did not possess the required IT and network infrastructure to support processes which form part of the Fourth Industrial Revolution.

Practical/Managerial Implications

Practical applications of this research for HR managers involve workplace work methods where changes and adaptation will be required to ensure that employee onboarding continues during a time of lockdown and remote working conditions. The HR policy regarding a hybrid onboarding system should be amended to ensure that the organisation is future fit for similar pandemics and challenges. The practical implications stress the importance of leveraging technology, investing in reliable infrastructure, and ensuring equitable resource distribution to maintain effective onboarding practices, even during disruptions or remote work conditions.

The managerial implications of this research relate to the need for HR managers to rethink employee onboarding processes, based on the findings from practices implemented during the COVID-19 pandemic. Managers could utilise the information to devise a hybrid combination of onboarding processes for the future, ensuring that the onboarding process remains efficient and effective. The managerial implications emphasise the need for active managerial involvement, comprehensive pre-onboarding training, flexible onboarding strategies, strategic financial planning, and enhanced digital literacy to support effective onboarding processes and the effectiveness.

Limitations and Recommendations

- **Limitations of the study:**

Due to the qualitative cross-sectional nature of the study, this study is not generalisable and is therefore a limitation. There were various other limitations, in particular the sample size, interview medium and reluctance of participants.

Sample size – The sample size of ten participants was admittedly small for research purposes. The sample size came about because employees refused to be a part of the interview process or stated outright that they were not relevant to the research at all.

Interview medium – Due to the first interviews being conducted face to face as opposed to online, time was spent meticulously transcribing the recorded interviews because the interviewer was not fully prepared for the first interviews. However the necessary changes were made to subsequent interviews by ensuring that all the technology required was working and that the interviews were conducted in English

using Microsoft Teams. This eliminated the need to transcribe the interviews from a recording.

Reluctance of participants – Various persons were reluctant to participate in this research, with the POPI Act used as the reason for their reluctance. This proverbial stone wall hampered attempts to gain more participants for the research.

- **Recommendations of the study:**

It is recommended that the contributing and constraining factors found in this study be made available to the managers and HR managers of the municipality under study. Policies, procedures and practices should then be developed to convert to a hybrid onboarding system which includes technology training. HR managers should invest in reliable digital technologies, including videoconferencing tools and Microsoft Teams software, and continue utilising paperless systems to streamline onboarding processes. They should also focus on providing accessible internet document access and integrate both remote and in-person elements into onboarding policies. Additionally, ensuring the involvement of immediate senior managers and the equitable distribution of resources will enhance the overall onboarding effectiveness.

For future research, a quantitative study can be conducted to investigate the demographic differences among employees during onboarding in challenging times such as a pandemic.

Conclusion

The study aimed to explore the factors that contributed to and constrained the implementation of HRM onboarding amid the COVID-19 pandemic at the City of Tshwane Metropolitan Municipality in South Africa. Videoconferencing tools, paperless systems, geographical location, accessible internet document access and involvement of immediate senior managers were the identified themes of the contributing factors. Lack of Microsoft Teams software experience, lack of adopting onboarding processes, incomplete and slow induction process, no induction process, network and mobile connections, electricity load-shedding, funding, familiarity with technology, COVID-19 regulations and the availability of resources were the identified themes of the constraining factors. New knowledge contribution within the field of management sciences was obtained with specific reference to these contributing factors and constraining factors of onboarding during a pandemic on a local government level. HRM policies, procedures and practices should be amended according to these identified factors to ensure that this municipality is future-ready if similar challenges may arise.

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