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**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**

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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 purpose was to explore the factors affecting the implementation of HRM onboarding practices at a South African municipality. This research employed a qualitative approach from an interpretive phenomenological research design by utilising semi-structured face-to-face and videoconferencing interviews to collect data. 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 and in the future. 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*

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).

Research Problem and Objective

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 for the technological interface. Several factors hampered the implementation of employee onboarding efforts, both online and face to face. These included a lack of internet fiber 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.

Some HRM work practices contributed to continued employee onboarding, while other practices hindered the onboarding process during the pandemic period. The researchers wanted to determine how the implementation of onboarding during the COVID-19 pandemic was hindered and what factors contributed to the onboarding process.

The objective of this research was to explore the 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.

Literature Review

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, 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, Rieutort, Rosseeuw and Robinson (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.

Research Method

Research Design

A qualitative research methodology was implemented for this research, within an interpretive phenomenological research design. An exploratory research design was used because there was little research available on either the future of onboarding or onboarding during COVID-19. The literature review shed light on the research topic. Semi-structured questions assisted in establishing the status of onboarding and its future use.

Sample

The municipality 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).

Measuring Instrument

Data Collection

The data collection method chosen for this research was semi-structured interviews conducted using Microsoft Teams. Where possible, the interviews were recorded and transcriptions stored for record purposes (Bless, Higson-Smith & Sitole, 2013:340-341). Interviews were held with ten Human Resource personnel within the City of Tshwane Metropolitan Municipality.

Data Analysis

The thematic analysis approach described by Tesch (1990:45) was used to analyse the primary data (interviews) and secondary data (documents). This involved searching for phrases and words that appeared to be the same based on the theme, which were then represented through codes which acted as summary markers. Codes and themes were identified using ATLAS.ti.

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 researcher developed codes by using the phrases or terms of the participants themselves rather than the theoretical vocabulary of the researcher. In this way the codes stayed close to the data, mirroring what was in them rather than the ideas and prior understandings of the researcher, 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. For this research, the steps identified by Akinyode (2018:166-167) – data logging, anecdotes, vignettes, data coding and lastly the thematic network – were used for data analysis.

Trustworthiness

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). Rose and Johnson (2020:3) state that trustworthiness refers to the rigour of the research design, the credibility of the researcher and how applicable the research methods used are. Furthermore, trustworthiness ensures that qualitative research remains a viable methodology within the academic world. According to Lemon and Hayes (2020:605), writers such as Lincoln and Guba proposed criteria to establish the trustworthiness of qualitative research as well as the means to increase the trustworthiness of a study.

The trustworthiness of a qualitative study is ensured through the depth of the literature reviewed, the theoretical positioning of the argument and the data collection and analysis methods (Rose & Johnson, 2020:4). Furthermore, the validity and reliability of the research must be safeguarded. The criteria of credibility, transferability, dependability, conformability and reflexivity are key to establishing trustworthiness (Korstjens & Moser, 2017:2).

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 researcher's 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 researcher with sufficient detail for a transfer to be possible.

Ethical Considerations

The researcher adhered to guidelines offered by Greeff (2020:1) for conducting qualitative research during the lockdown and social distancing period. This entailed the researcher 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).

During this research, various ethical guidelines were followed to protect both the researcher 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. Contributing factors were videoconferencing tools, paperless systems, online onboarding, intranet and department-specific onboarding. Constraining factors were videoconferencing tools, online onboarding, onboarding shortened/reduced, onboarding halted, network and mobile connections, electricity load-shedding, funding, familiarity with technology, COVID-19 regulations and the availability of resources.

Contributing factors

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: Online onboarding

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: Intranet

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:

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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 5: Department-specific onboarding

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

Theme 6: Videoconferencing tools

While there is a range of benefits to using videoconferencing tools, due to the sudden implementation of work from home measures many employees were unfamiliar with the tools available and initially found it difficult to adapt to online meetings. The following verbatim quotations illustrate the problems encountered with the use of videoconferencing tools 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 videoconferencing systems. Noteworthy was the response from Participant 7, namely that the use of Microsoft Teams was problematic when onboarding was conducted with many new employees.

Theme 7: Online onboarding

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: Onboarding shortened/reduced

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: Onboarding halted

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

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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 and are now discussed.

Contributing Factors

The findings on contributors to the onboarding process during COVID-19 and in the future 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 coincides 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), who found that a paperless system improved organisation and accessibility and saved time.

Theme 3: Online Onboarding

Participants were generally positive about onboarding in an online space, especially in light of the convenience factors of reduced travelling requirements and costs. This coincides with 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: Intranet

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 on them. This coincides with research done by Steifo and Thomasson (2023:25), where 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.

Theme 5: Department-specific Onboarding

Participants highlighted that onboarding was performed in the department by the employee's direct supervisor. This coincides with research conducted by Arsamakov (2022:8), where 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 and in the future, 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: Videoconferencing Tools

The findings on the constraints to the onboarding process during COVID-19 and in future onboarding efforts 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 7: Online Onboarding

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: Onboarding Shortened/reduced

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. This again coincides with 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.

Theme 9: Onboarding Halted

Two participants informed the researcher that onboarding processes in the municipality had been halted completely. This coincides 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 10: Network and Mobile Connections

Two participants informed the researcher that onboarding processes in the municipality had been halted completely. This coincides 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

Loadshedding of electrical supply was identified as detrimental to onboarding both during COVID-19 and in the future. This is because cell towers do not have

the required battery backup capacity to remain working and effective during extended loadshedding periods. Furthermore, if employees and the municipality do not have a back-up system for their computers, it is improbable that online onboarding will be conducted. Olaitan, Issah and Wayi (2021:8) state that loadshedding makes it difficult for business entities in South Africa to adopt technologies required for the Fourth and Fifth Industrial Revolutions. 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).

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. This could be addressed through the recommendation of Olaitan, Issah and Wayi (2021:8) that the current curriculum used in higher education should incorporate learning outcomes related to the digital literacy and digital skills of South Africans. 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.

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 coincides 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 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 managerial implications of this research relate to the need 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.

Limitations and Recommendations

There were various 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. But 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.

Conclusion

Factors that contributed to and constrained the implementation of Human Resource Management onboarding amid the COVID-19 pandemic at the City of Tshwane Metropolitan Municipality in South Africa were identified.

The contributing factors were videoconferencing tools, paperless systems, online onboarding, the intranet and department-specific onboarding, while the constraining factors were videoconferencing tools, online onboarding, onboarding shortened/reduced, onboarding halted, network and mobile connections, electricity load-shedding, funding, familiarity with technology, COVID-19 regulations and the availability of resources.

The contribution of this research lies in the adaptation of work methods to be agile and to improve onboarding processes in municipalities in South Africa, as most municipalities operate under similar conditions. The research highlighted

barriers to effective online HRM onboarding and provided methods to overcome these barriers and adapt to current and future work processes. HR processes succeed in an agile environment which emphasises collaboration between man and machine to bring about growth and innovation.

References

- Akinyode BF (2018) Step by step approach for qualitative data analysis. *International Journal of Built Environment and Sustainability*, 5(3): 163–174.
- Alharbi S, Dasuki S & Lin A (2021) *The impact of digital solutions on organisational onboarding practice: a case study of a Saudi-Arabian organisation*. Sheffield: UK Academy for Information Systems.
- Allard N & Cagenius E (2021) Virtual teams, the new norm? A study on the effects of becoming a virtual team. MSc thesis, Uppsala Universitet.
- Arsamakov A (2022) COVID-19 impact on the job onboarding process. BBA thesis, Helsinki: Haaga-Helia University of Applied Sciences.
- Axmann B & Harmoko H (2020) *Robotic process automation: an overview and comparison to other technology in Industry 4.0*. Deggendorf: IEEE.
- Bhakta K & Medima MS (2020) The importance of mentors during preboarding, orientation, and onboarding of new faculty during a global pandemic. *American Journal of Pharmaceutical Education*, 83: 7100.
- Bless C, Higson-Smith C & Sithole S (2013) *Fundamentals of social research methods: an African perspective*. 5th edition. Cape Town: Juta.
- Blštáková J, Joniaková Z, Jankelová N, Stachová K & Stacho Z (2020) Reflection of digitalization on business values: the results of examining values of people management in a digital age. *Sustainability*, 12(5202): 1–17.
- Byford M, Watkins MD & Triantogiannis L (2017) Onboarding isn't enough. *Harvard Business Review*, 14 December: 1–17.
- Caniac HS (2018) All aboard! Benchmarking human resources onboarding practices. MBA thesis, Monterey: Naval Postgraduate School.
- City of Tshwane Metropolitan Municipality (2020) *Consolidated audited annual report: 2019/20 financial year*. Pretoria: City of Tshwane Metropolitan Municipality.
- Da Silva VL, Kovaleski JL, Pagani RN, Corsi A & Gomes MAS (2020) Human factors in smart industry: a literature review. *Future Studies Research Journal*, 12(1): 87–111.
- De Villiers C, Cerbone D & Van Zijl W (2020) The South African government's response to COVID-19. *Journal of Public Budgeting, Accounting & Financial Management*: 1–17.
- Dominic J, Houser J, Steinmacher I, Ritter C & Rodeghero P (2020) *Conversational bot for newcomers onboarding to open source projects*. Seoul: Association for Computing Machinery.
- Fourie L, Rieutort C, Rosseeuw D & Robinson D (2023) Physical vs digital onboarding of new employees: what are the pros and cons? *Insight Out*, June: 39–41.
- Gan JL & Yusof HM (2019) Industrial Revolution 4.0: the human resource practices. *International Journal of Recent Technology and Engineering*, 8(3S2): 620–624.
- Goodermote C (2020) Remote onboarding and training of new program coordinators into the medical education office during Covid-19 social distance quarantine: process and recommendations. *Journal of Community Hospital Internal Medicine Perspectives*, 10(5): 399–401.

- Graebner M, Martin, J & Roundy P (2012) Qualitative data: cooking without a recipe. *Strategic Organisation*, 10(3): 276–284.
- Greeff M (2020) *Conducting qualitative research during a period of lockdown and social distancing*. Potchefstroom: North-West University.
- Heinrichs K & Rommerskirchen I (2021) Being invisible while being visible: a case study of how the perception of virtual onboarding relates to networking in a consultancy firm. MSc thesis, Lund University.
- Hemphill L & Begel A (2021) *Not seen and not heard: onboarding challenges in newly virtual teams*. S.l.: s.n.
- Ho H, Hofmann C & Schwaiger N (2023) The Covid-19 pandemic and management controls. *Accounting and Business Research*, 53(5): 583–607.
- Karintaus L, Kontor T, Raudaskoski N & Eronen T (2020) *Enhancing onboarding with augmented reality – case IKEA*. BS thesis, Tampere University.
- Katerere F (2022) The experience of the virtual onboarding process for knowledge workers in South Africa. MBA mini dissertation, Pretoria: Gordon Institute of Business Science.
- Klein HJ, Polin B & Sutton KL (2015) Specific onboarding practices for the socialization of new employees. *International Journal of Selection and Assessment*, 23(1): 263–283.
- Korstjens I & Moser A (2017) Series: practical guidance to qualitative research. Part 4: trustworthiness and publishing. *European Journal of General Practice*: 1–6.
- Lemon L & Hayes J (2020) Enhancing trustworthiness of qualitative findings: using Leximancer for qualitative data analysis triangulation. *The Qualitative Report*, 25(3): 604–614.
- Liu J, Frenette N, Beltran AM, Passi J & Pitoulis T (2021) Support services perspectives. *Wood's Homes Journal – Evidence to Practice*: 25–29.
- Nyakale M (2016) *A study of onboarding processes as experienced by new employees*. MIT thesis, University of Pretoria.
- Madill A & Sullivan P (2018) Mirrors, portraits and member checking: managing difficult moments of knowledge exchange in the social sciences. *Qualitative Psychology*, 5(3): 321–339.
- Olaitan O, Issah M & Wayi N (2021) A framework to test South Africa's readiness for the Fourth Industrial Revolution. *South African Journal of Information Management*: 1–10.
- Oranburg SC & Khan BP (2020) Online onboarding: corporate governance training in the COVID-19 era. *Arizona State University: Corporate and Business Law Journal*, 2(1): 1–21.
- Pavlina K (2020) Assessing best practices for the virtual onboarding of new hires in the technology industry. MSc thesis, Pepperdine University.
- Piowar-Sulej K (2020) Human resource management in the context of Industry 4.0. *Organization and Management*, 1(49): 103–113.
- Reaves J (2019) 21st-century skills and the Fourth Industrial Revolution: a critical future role for online education. *International Journal on Innovations in Online Education*, 3(1): 1–21.
- Rdeghero P, Zimmermann T, Houk B & Ford D (2021) *Please turn your cameras on: remote onboarding of software developers during a pandemic*. Madrid: IEEE.
- Rockwood K (2020) Rolling out the red carpet. *HR Magazine*, 65(2): 16–17.
- Rose J & Johnson C (2020) Contextualizing reliability and validity in qualitative research: toward more rigorous and trustworthy qualitative social science in leisure research. *Journal of Leisure Research*: 1–21.

- Scott C, Gu S, Deepak P & Wildman J (2021) Onboarding during COVID-19. *Organizational Dynamics*, 51(2): 1–20.
- Skolasky C (2022) *Case study of Otis: diversity, equity, inclusion, belonging, and mattering in onboarding practices*. BSc thesis, Fayetteville: University of Arkansas.
- Sinkovics RR & Alfoldi EA (2012) Progressive focusing and trustworthiness in qualitative research: the enabling role of Computer-Assisted Qualitative Data Analysis Software (CAQDAS). *Management International Review*, 52: 817–845.
- Sithole N (2019) *Exploring the experiences of professional development of selected employees at eThekweni municipality: a case study*. MEd dissertation, Durban: University of KwaZulu-Natal.
- Sivathanu B & Pillai R (2018) Smart HR 4.0 – how Industry 4.0 is disrupting HR. *Human Resource Management International Digest*, 26(4): 7–11.
- Skjott Linneberg M & Korsgaard S (2019) Coding qualitative data: a synthesis guiding the novice. *Qualitative Research Journal*, 19(3): 259–270.
- Steifo T & Thomasson O (2023) Hybrid onboarding: its impact on newly hired employees. MSc thesis, Gothenburg: University of Gothenburg School of Business, Economics, and Law.
- Tesch R (1990) *Qualitative research – analysis types and software protocols*. Hampshire, UK: Falmer.
- Verma A, Bansal M & Verma J (2020) Industry 4.0: reshaping the future of HR. *Strategic Direction*, 36(5): 9–11.
- Verma S & Rana N (2021) A study of HRM and digital transformation in organization's strategy and policies: reshaping HR space. *International Journal of Scientific Research & Engineering Trends*, 7(4): 2246–2252.
- Wathanabut B (2019) From HR 4.0 to better supply chain flexibility: role of talent onboarding and a development in Thailand. *International Journal of Supply Chain Management*, 8(5): 804–815.
- Whysall Z, Owtram M & Brittain S (2019) The new talent management challenges of Industry 4.0. *Journal of Management Development*, 32(2): 118–129.
- Zaeske C (2019) *Enhancing employee communication to support onboarding: developing an intranet*. MBA thesis, Helsinki: Haaga-Helia University of Applied Sciences.