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Research Report

Digital onboarding within an Earthmoving Equipment Maintenance and Repair organisation in South Africa: a blue-collar worker perspective

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ABSTRACT

The research is enshrined in the influence of digital onboarding on blue-collar workers within an Earthmoving Equipment Maintenance and Repair (EEMR) organisation in South Africa.

The research seeks to understand the role of digital onboarding in shaping the human experience of blue-collar workers and to identify potential barriers to successful onboarding in the digital era.

This study adopted a qualitative research design to provide an in-depth understanding of the experiences and perspectives of blue-collar workers regarding digital onboarding.

Semi-structured interviews were utilised to gather rich and meaningful data that captured the nuances of the 16 participants' experiences through thematic analysis.

The findings reveal that while some blue-collar workers embrace digital onboarding, others face challenges related to digital literacy, access to technology, and concerns about job security. Recommendations are provided to address these challenges and leverage the benefits of digital onboarding to enhance employee integration, efficiency, and safety within the organisation.

KEYWORDS

Digital Onboarding, Earthmoving equipment maintenance, Blue-collar workers, Human experience, Digital literacy, Self-efficacy, Immersive Digital solutions

DECLARATION

I, Faheema Wannenburg, declare that this research report is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Management in the field of Digital Business at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

Name: Faheema Wannenburg Signature: *F Wannenburg*

Signed at Roodepoort.....

On the 25th..... day of February..... 2024.

DEDICATION

To my cherished mother,

I am deeply grateful for your unwavering belief in me and your relentless encouragement to chase my dreams. Your support has been my guiding light, inspiring me to reach for the stars. Thank you for always being there and for cheering me on every step of the way.

“You only know yourself when you go beyond your limits.” *Paulo Coelho*

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LIST OF ACRONYMS

AR Augmented Reality

EEMR Earthmoving Equipment Maintenance and Repair

IWG Inform-Welcome-Guide

OEM Original Equipment Manufacturer

TOE Technology, Organisation, and Environment Framework

TVET Technical Vocational Education and Training

UTAUT Unified Theory of Acceptance and Use of Technology

VR Virtual Reality

CHAPTER 1. INTRODUCTION

1.1 Statement of purpose

The purpose of this research paper was to examine the influence of digital onboarding on blue-collar workers within a leading Earthmoving Equipment Maintenance and Repair (EEMR) organisation in South Africa. The study aimed to investigate the role digital onboarding has on the human experience and to identify barriers to successful digital onboarding.

Digital onboarding is the process by which new employees are introduced and integrated into a company's digital platforms, immersing them in the organisation's culture, policies, and procedures as outlined by Bauer (2010). The overarching aim of digital onboarding is to provide a seamless and intuitive experience, enabling the new employee to interact effectively with the platform. By presenting information in manageable, bite-sized pieces, this approach facilitates easier absorption and understanding for the new employees.

According to Bauer (2010) the onboarding journey usually commences during the pre-onboarding stage, when a candidate has accepted the job offer. The new employee is then navigated through a sequence of well-designed steps aimed at enhancing their understanding of the platform and its effective use. This may encompass tutorials, guided walkthroughs, or interactive demonstrations tailored to the platform.

Key elements of the onboarding process include:

- I. **User registration:** Typically, the initial step in digital onboarding, which entails the user setting up an account by providing essential details such as their name, email, and password. Simplifying this process helps prevent drop-offs.

- II. **User verification:** As a security protocol, this confirms the user's identity. It may involve email confirmation, SMS verification, or, in certain cases, a more comprehensive identity check.
- III. **User education:** Post-registration, users are equipped with the necessary knowledge to navigate the platform. This could include tutorials, tooltips, walkthroughs, videos, or other instructional content. The objective is to help users understand the platform's value and usage.
- IV. **Personalisation:** Based on the platform's nature, personalising the user experience during onboarding could be beneficial. Users might be asked for preference-related information, helping tailor their experience.
- V. **Feedback and support:** Digital onboarding should include channels for users to raise questions, report issues, and provide feedback. This can be facilitated through live chat, automated chatbots, email, or other support systems.
- VI. **Progress tracking and gamification:** Incorporating progress indicators or gamification can make the onboarding process more engaging. These elements motivate users to complete the onboarding process while enabling them to visualize their progress.
- VII. **Data security and privacy:** It's vital to assure users of data safety and clearly communicate data usage policies. This requires providing clear and easily accessible privacy policies.
- VIII. **Performance monitoring and optimisation:** Lastly, organisations should monitor and analyse user behaviour during onboarding. This enables them to gain insights, optimise, and incrementally improve the process, leading to enhanced user retention and engagement.

These components should all work together to make the digital onboarding process an effective and user-friendly experience.

Other benefits digital onboarding holds:

- I. **Skills training and knowledge transfer:** Digital onboarding platforms can provide extensive training resources for new or existing employees transitioning to new roles. They can learn the basics of equipment maintenance, management, and repair through interactive, multimedia content. This method of role-specific onboarding can be more efficient and consistent compared to traditional on-the-job training.
- II. **Safety training:** Safety is a critical concern in EEMR industries. Digital onboarding can provide comprehensive safety training, including how to use equipment safely, how to handle hazardous materials, and what to do in emergencies. Employees can revisit these materials anytime for refreshers.
- III. **Standardised processes:** Digital onboarding helps ensure that every employee is following the same set of guidelines and procedures. This standardisation can reduce errors and increase overall efficiency and quality of work.
- IV. **Equipment-specific training:** In EEMR industries, it's common to work with a wide variety of different equipment types. Digital onboarding can provide specific instructions, protocols, and training materials for each piece of equipment, ensuring employees are properly equipped to handle the variety of machinery they might encounter.
- V. **Remote learning:** In today's environment, the ability to train and onboard remotely is an added advantage. Digital onboarding allows new employees to learn at their own pace, at a location of their convenience.
- VI. **Paperwork reduction:** Onboarding often involves a lot of paperwork. Digital onboarding can automate this process, saving time and reducing the chance of errors.

- VII. **Enhanced communication:** Digital platforms can make it easier to communicate updates or changes in procedures, equipment manuals, safety protocols, etc. Employees can be notified immediately, ensuring everyone is on the same page.
- VIII. **Monitoring and feedback:** Digital onboarding platforms often have analytics built in, which means employers can track progress, see where employees might be struggling, and provide additional resources or support as needed.

While digital onboarding can have tremendous benefits, it's important to recognise that not all blue-collar workers will have the same level of comfort or familiarity with digital tools. It's crucial to make the platform as user-friendly as possible and provide support for those who may need it.

The EEMR industry consists of Original Equipment manufacturers (OEM) that provide industrial equipment and services for surface and underground mining, construction, energy, transportation which includes engines and power systems (Barloworld, 2022).

Table 1: Employment by industry (Stats SA, 2022)

| Industry | Dec 2021 | Sep* 2022 | Dec 2022 | Q/Q Change | Q/Q Change | Y/Y Change | Y/Y Change |
|--------------------|---------------|--------------|--------------|------------|------------|------------|-------------|
| | Thousand | | | % | % | Thousand | % |
| Mining | 458 | 469 | 471 | 2 | 0,4 | 13 | 2,8 |
| Manufacturing | 1 177 | 1 177 | 1 176 | -1 | -0,1 | -1 | -0,1 |
| Electricity | 59 | 59 | 58 | -1 | -1,7 | -1 | -1,7 |
| Construction | 545 | 521 | 511 | -10 | -1,9 | -34 | -6,2 |
| Trade | 2 143 | 2 136 | 2 185 | 49 | 2,3 | 42 | 2,0 |
| Transport | 419 | 414 | 414 | 0 | 0,0 | -5 | -1,2 |
| Business services | 2 351 | 2 336 | 2 345 | 9 | 0,4 | -6 | -0,3 |
| Community services | 2 910 | 2 808 | 2 808 | 0 | 0,0 | -102 | -3,5 |
| Total | 10 062 | 9 920 | 9 968 | 48 | 0,5 | -94 | -0,9 |

*Revised estimates.

The statistics provided by Stats SA (2022) in Table 1 above show the reduction in employment within the construction and manufacturing industries by 94 000 or -0.9% year-on-year between December 2021 and December 2022.

The EEMR industry requires critical technical, maintenance and engineering skills, which are mainly provided by blue-collar workers. However, South Africa is experiencing a shortage of technical skills, and this has resulted in a high demand for this level of worker both locally and internationally.

In addition, this study has examined the current digital onboarding in place and the appetite for such among blue-collar workers. As it may affect their cultural affinity and integration into the work environment, leading to high employee turnover. Moreover, the research aimed to explore alternative immersive digital solutions that cater to users who are not digitally literate, providing ease of navigation and understanding to all new employees.

The study will contribute to the cultural context of the sampled organisation by underscoring the significance of digital onboarding in improving the integration of blue-collar workers into digitised work environments. By addressing the challenges and leveraging the benefits of digital onboarding, the findings of this study can be further extended to organisational leaders and policymakers within the Earthmoving Equipment Maintenance and Repair industry in South Africa. A more inclusive, efficient and safe working environment for their employees can be created, ultimately contributing to the success and growth of their respective organisations as a whole.

1.2 Background of the study

The background of this study highlights the importance of blue-collar workers in the South African economy, and how they are often overlooked in discussions about digital transformation and workplace development.

Blue-collar workers are typically male, of colour, and over the age of 35, they perform physically demanding tasks in industries such as mining, construction, and automotive as outlined by Lee & Mohamed (2006). Most careers would include artisans, mechanics, and tradespeople where skills were acquired on the job or through technical training offered by technical vocational education and training (TVET) colleges. Despite their importance to the economy, they may not be considered digitally savvy and may struggle with using technology in the workplace.

The study aimed to examine the influence of digital onboarding on blue-collar workers by investigating the role digital onboarding has on the human experience and to identify barriers to successful onboarding. Muncaster (2023) found that by understanding the challenges faced by this group of workers, organisations can enhance their digital transformation efforts and improve the employee experience.

The study is important because it sheds light on a group of workers who are often marginalized in discussions about digital inclusion and workforce development.

1.3 Research problem

The research problem identified in this study is the challenge of high employee turnover in organisations, specifically in the context of the sampled Earthmoving Equipment Maintenance and Repair (EEMR) organisation in South Africa.

Despite significant resources being allocated towards recruitment, there still seems to be a gap in the initial engagement with new hires during the onboarding process. Onboarding is crucial for employee satisfaction, engagement, and retention. The lack of effective onboarding can lead to employees feeling excluded, overwhelmed, and uninspired in their new roles. According to Hirsch (2017) onboarding offers a golden opportunity for organisations to win the hearts and minds of new employees. Ziden (2020) states that successful onboarding will lead to employee retention.

The sampled organisation currently only offers digital onboarding, which can be intimidating for employees with low digital literacy. Line managers also do not consider onboarding as a mandatory requirement before starting to work, leading to important steps being overlooked.

Maurer (2008) points out that onboarding is a process meant to ensure that all new employees feel a sense of inclusion and security and are successfully integrated into an organisation, its culture, and other social aspects of their new role.

According to Ziden (2020) the faster new employees can integrate themselves into the new work environment and begin to contribute productively, the quicker the organisation will gain from its return in investment from the “new appointments”. To address these issues, this study aimed to examine the current digital onboarding in place and the appetite for such amongst blue-collar workers.

Furthermore, this study seeks to explore alternative immersive digital solutions that can cater to users who are not digitally literate.

1.4 Research questions

The objectives of this research were to examine the influence of digital onboarding on blue-collar workers within an EEMR organisation based in South Africa through a qualitative approach. The study aimed to investigate the role digital onboarding has on the human experience along with barriers to successful onboarding. This study seeks to make a contribution towards employee satisfaction and retention.

The following research questions will be investigated:

- I. How does digital onboarding impact the human experience of blue-collar workers within the EEMR organisation in South Africa?
- II. What is the influence of digital onboarding on blue-collar workers within the EEMR organisations in South Africa?
- III. Evaluate the current digital onboarding processes in place and their acceptance amongst blue-collar workers with the EEMR organisation in South Africa?
- IV. What are the potential barriers to successful onboarding amongst blue-collar workers within the EEMR organisation in South Africa?

1.5 Rationale

At the heart of the Earthmoving Equipment Maintenance and Repair industry (EEMR) are skilled technicians and mechanics who perform essential work on construction sites around the world. In response to the COVID-19 pandemic, a leading organisation in this industry recently revamped its onboarding process, transitioning to a digital platform for all new hires.

As a result, those who do not have access to technology or struggle to navigate the digital onboarding platform end up not getting onboarded, missing out on the full experience, which lead to feelings of exclusion and frustration. Additionally,

line managers often neglect to consider onboarding as a crucial prerequisite before initiating work, leading to important steps being overlooked.

This study seeks to explore the complex interplay between digital literacy and onboarding experiences among blue-collar workers in the EEMR industry.

By examining existing literature on digital onboarding and the unique challenges faced by blue-collar workers in this industry, this study aimed to provide new insights into how organisations can create more inclusive onboarding experiences for all, regardless of their level of technological proficiency.

Specifically, this study investigated how a softer, more accessible approach to immersive digital technology might help bridge the gap between blue-collar workers who may feel left behind by rapid technological changes and those who are more comfortable with digital platforms.

By shedding light on these issues, this study hopes to make a valuable contribution to the literature on digital onboarding and blue-collar workers in the EEMR industry. Ultimately, the goal is to help organisations create more equitable, effective onboarding processes that foster a sense of belonging and engagement among all employees.

1.6 Delimitations of the study

The study was delimited to the following:

- I. **Geographical location:** The study focused on the onboarding experiences of blue-collar workers within the selected organisation and its branches within a particular geographical location.
- II. **Sample size:** The study had a limited sample size of blue-collar workers (apprentices and mechanics).
- III. **Technology:** The study focused on the digital onboarding experience of blue-collar workers who have access to technology.

- IV. **Timeframe:** The study only considered the onboarding experience of blue-collar workers who had joined the organisation within the past year.
- V. **Industry:** The study was limited to the industries and job roles of the blue-collar workers within the selected organisation and may not be generalised to other industries or job roles.
- VI. **Language:** The study was conducted in English, which may limit the participation of non-English speaking blue-collar workers.

1.7 Definition of terms

This study had the following terms that were defined:

Blue-collar workers: as defined by Lee (2006) is a term used to describe someone who performs manual labour in a physically demanding job.

Digital literacy: as described by Erstad (2010) is the ability to use digital technology, communication tools, and networks to locate, evaluate, use, and create information. It involves not only basic computer skills but also the ability to critically evaluate and use digital information in various contexts.

Digitally savvy refers to having the skills, knowledge, and ability to use digital technology effectively and efficiently, such as computers, smartphones, software applications, and the Internet in a study conducted by Kirschner (2010). A digitally savvy person can navigate and utilise various digital tools and platforms for work, communication, learning and other activities.

Employee satisfaction: Spector (1997) describes it as the level of contentment or fulfilment an employee feels towards their job, work environment, and overall employment experience. It encompasses various factors such as job security, work-life balance, compensation and benefits, opportunities for growth and development, communication and feedback, and overall organisational culture.

High employee satisfaction is often linked to higher levels of employee engagement, productivity, and retention.

Employee turnover: according to Hom (1995) employee turnover is the rate at which employees leave an organisation and are replaced by new hires. It is often expressed as a percentage of the total workforce and is a key metric used to measure the stability and health of an organisation. High employee turnover can be costly for businesses, as it can result in lost productivity, increased recruitment costs, and a negative impact on company culture.

Evaluate: To assess the value, quality, or effectiveness of something. It involves gathering data, analysing information, and making judgements or recommendations. It focuses on measuring outcomes, identifying areas of improvement, and informing decision-making.

Human experience: refers to an individual's personal and emotional experience of an event or situation. It encompasses the feelings, perceptions, beliefs, and attitudes of a person and how they interpret and make sense of the world around them as stated by Pine (1998). In the context of this, the human experience refers to how blue-collar workers perceive and engage with the digital onboarding process and how it affects their sense of inclusion, security, and overall experience as a new employee in the organisation.

Influence: Refers to the power or ability to affect someone's belief, attitude, or behaviour. It can be used to shape opinions, drive decision-making, or encourage specific actions. **Missing middle:** Scherer (2016) refers to a group of employees who often do not fit neatly into traditional categorisations of worker profiles within an organisation. This group is typically composed of employees who perform physical/manual labour-intensive tasks but are not considered unskilled labour. They are often seen as the bridge between white-collar (professional) and blue-collar (manual labour) workers.

Onboarding: refers to the process of integrating new employees into an organisation and familiarising them with the company's culture, policies,

procedures, and systems. Bauer, Bodner, Erdogan, Truxillo and Trucker (2007) outlines that it typically begins before the employee's first day and can last up to 6-12 months, depending on the organisation and the role. The purpose of onboarding is to help new hires feel welcome, comfortable, and prepared to do their job effectively, ultimately leading to increased job satisfaction, productivity, and retention according to Bauer et al. (2007).

Retention: Kramar (2014) states that retention is an organisation's ability to retain its employees over a period. It involves creating a work environment that fosters employee's satisfaction, engagement, and commitment, which in turn can lead to long-term retention of employees. Retention strategies can include initiatives such as career development opportunities, competitive compensation and benefits, work-life balance programs, and employee recognition and rewards. The goal of retention is to reduce turnover rates and maintain a stable and productive workforce.

Technical and vocational educational colleges: according to Singh (2016) post-secondary institutions that offer vocational technical education programmes that aim to prepare students for employment in specific industries or trades. These colleges provide hands on training and practical skills development in areas such as mechanics, welding, electrical work, plumbing and more. TVET colleges are often seen as a more accessible and affordable alternative to traditional universities for students who want to pursue careers in the skilled trades or technical fields.

1.8 Assumptions

For this study the following assumptions were made:

- I. There currently are gaps in the implementation of digital onboarding on blue-collar workers.
- II. To investigate these gaps, there was an expectation that access and permission would be granted to perform stakeholder engagements and map out the current as-is process for digital onboarding and the existing technologies thereof.
- III. The study assumed that the role of digital onboarding had a direct effect on the human experience and this study aimed to identify the barriers to successful onboarding.
- IV. It further assumed that there may be an appetite for digital onboarding, and the study sought to examine these amongst blue-collar workers.
- V. In addition, the sample organisation would share any related policies and procedures.
- VI. The study further assumed that there will be a willingness from the sampled organisation to make changes and improvements to their current digital onboarding process based on the findings and recommendations of this study.
- VII. Additionally, the study assumed that the participants were willing to engage in the research process and provide accurate and honest responses to the surveys and interviews.
- VIII. Furthermore, the study assumed that there were immersive digital solutions available in the market that could cater for users who are not digitally literate, and this research aimed to explore these alternative offerings.
- IX. Finally, the study assumed that the data collected was reliable and representative of the experiences of blue-collar workers in other similar industries and organisations.

1.9 Chapter outline

The study consists of the following topics:

Chapter 1 covered an introduction to the study. It consists of the statement purpose, background of the study, the context of study which includes evaluating through qualitative study the implementation of digital onboarding on blue-collar workers within a leading Earthmoving Equipment Maintenance and Repair organisation based within South Africa, to determine the effects on the human experience along with barriers to successful onboarding. Followed by the problem statement, research objectives and questions, rationale for the study, delimitations and assumptions, and chapter outline.

Chapter 2 is the literature review. Which consists of the background on digital onboarding and, the challenges of digital onboarding for blue-collar workers. The analytical framework (theoretical and conceptual), and research questions, are followed by the conclusion of the literature review.

Chapter 3 is the research approach. It consists of the introduction to the research approach, research design, data collection methods (e.g., interviews, surveys, observations). Followed by the population and sampling strategy, research instrument development, data collection procedures, data analysis and interpretation, data evaluation and quality assurance. Finally, this chapter addresses the limitations and challenges of the study, ethical considerations, quality assurance through external validity or transferability, internal validity or credibility, reliability or dependability, ethical considerations, proposed schedule, timelines, and conclusion.

Chapter 4 includes all the findings and results from the qualitative study. This chapter unpacks the description of the data collected, the analysis of data, including themes and statistics and the presentation of results.

Chapter 5 focuses on discussions of the findings. These include the interpretation of results and how they address research objectives and questions, limitations and

challenges of the study revisited, furthermore, justify the implications for practice and theory.

Chapter 6 shares the conclusion and recommendations of the study, which include a summary of study findings, implications for future research, recommendation for practice and concluding thoughts on the study's contribution to the field.

CHAPTER 2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

The advent of digital technology has led to the automation of numerous business processes. The onboarding process is one such process that has been transformed by digital technology. Digital onboarding involves the use of technology to onboard new employees. According to Huang and Jansen (2008) this process ensures that new employees have a sense of inclusion and security and are successfully integrated into the organisation, its culture, and other aspects of their new role. Bajer (2017) confirms that the emergence of digital onboarding can be attributed to the COVID-19 pandemic, which compelled numerous companies to transition to remote hiring and virtual onboarding to adhere to social distancing protocols and minimize operational expenses. Additionally, during that period, a significant portion of employees were working remotely.

This literature review explored the influence of digital onboarding on blue-collar workers within an Earthmoving Equipment Maintenance and Repair (EEMR) organisation in South Africa.

2.2 Background

This research study sought to explore a blue-collar worker perspective on digital onboarding within an EEMR Organisation in South Africa.

Digital onboarding is the process of integrating new employees into an organisation using digital platforms and tools. It is a critical aspect of human resource management, as it ensures that new employees feel a sense of inclusion, and security and are successfully integrated into an organisation, its culture, and other social aspects of their new role.

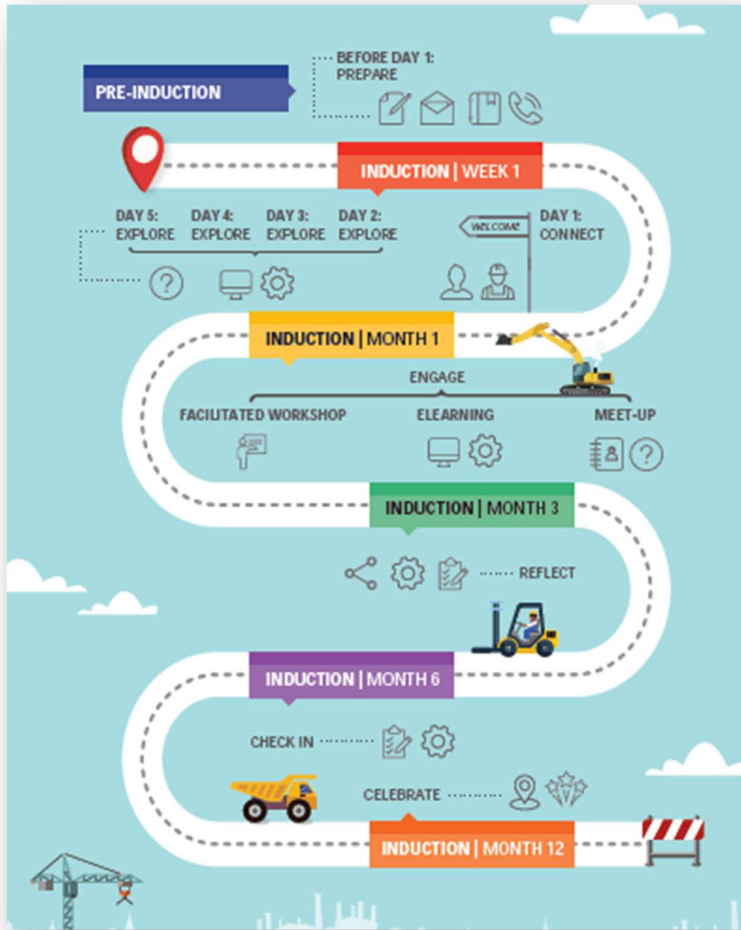


Figure 1: Onboarding model, Barloworld (2016)

In the context of EEMR organisations, digital onboarding can be used to enhance the effectiveness and efficiency of the onboarding process for blue-collar workers. However, there is a lack of research that investigates the influence of digital onboarding on blue-collar workers within EEMR organisations in South Africa.

This literature review intended to fill this research gap by examining the significance of digital onboarding in South African EEMR organisations, specifically from the perspective of blue-collar workers.

It investigated the human aspect of digital onboarding and the intricate relationship between digital literacy and the willingness of blue-collar workers to embrace current digital onboarding practices. Moreover, the review explored alternative immersive digital solutions that cater to individuals with limited digital literacy. It also critically analysed the obstacles that hinder successful onboarding and identified potential measures to overcome them.

The onboarding process according to Kapp and Defelice (2019) is essential for every new employee, including blue-collar workers. It is particularly essential for blue-collar workers, who may be more likely to experience workplace accidents and injuries. Studies have shown that traditional onboarding processes can be challenging for blue-collar workers, particularly those who have low levels of digital literacy.

There are various levels of distinction for blue-collar workers:

1. **Skilled trades:** workers who have specialised training or apprenticeships, such as electricians, plumbers or mechanics as described by the Bureau of Labour Statistics (2021).
2. **Semi-skilled workers:** workers who have some training or experience in a particular trade but may not have completed a full apprenticeship or formal education, such as machine operators according to Mahony & Hogg (2001).
3. **Unskilled workers:** according to Taylor (2016) workers who do not require any formal training or education, such as labourers or assembly line workers.

These distinctions can be important in understanding the specific needs and experiences of different groups within the blue-collar workforce, particularly in relation to digital onboarding and technology adoption. Research by Lee and Mohamed (2006) has moreover shown that traditional onboarding processes can be time-consuming and can negatively impact the productivity of blue-collar workers as. Therefore, digital onboarding may be a more efficient and effective solution for blue-collar workers.

2.3 How does digital onboarding impact the human experience amongst blue-collar workers within the EEMR organisation in South Africa?

Firstly, it is crucial to recognise that not all blue-collar workers possess the same level of digital literacy. Many individuals in these roles may have limited exposure to technology in their daily lives and may require additional support and training to navigate digital onboarding processes effectively. This finding is supported by the study conducted by Jorgensen and Swindall (2018), which emphasises that low levels of digital literacy can pose challenges for employees during digital onboarding.

To address this issue, organisations can provide comprehensive training and resources to enhance digital literacy skills among blue-collar workers. This training can focus on basic computer skills, online navigation, and the specific tools and systems used in the onboarding process. By investing in digital literacy training, organisations can bridge the gap and ensure that all employees, regardless of their initial level of familiarity with technology, can fully engage with digital onboarding processes.

Additionally, it is important to consider the potential limitations of digital onboarding in terms of fostering understanding of the job and the company. Bauer (2010) suggests that face-to-face interactions during onboarding can offer a more comprehensive and nuanced understanding of the organisation's culture, values, and expectations.

This highlights the need to strike a balance between digital onboarding and in-person interactions to provide a well-rounded onboarding experience for blue-collar workers.

To create a more employee-centred onboarding approach, Ziden and Joo (2020) recommends organisations can leverage technology to personalise the onboarding experience. For example, digital platforms can be designed to provide tailored

information and resources that are relevant to an individual's job role and responsibilities. This customisation can help employees feel more engaged, valued, and supported throughout the onboarding process.

Stein and Christiansen (2010) discuss how successful companies like Starbucks utilise "design thinking" to achieve favourable outcomes and view onboarding as a significant business opportunity. It is noted that conventional onboarding programs often lack structure, have limited scope, and fail to align with the broader organisational strategy.

Overburdened and ill-prepared hiring managers are tasked with addressing the crucial needs of new hires during their first year, a critical period in an employee's tenure. These needs include assistance with job readiness, professional development, assimilation into the company culture, networking, and career planning. Unfortunately, such activities are frequently regarded as routine tasks rather than strategic opportunities for revitalizing the company and its future prospects as confirmed in a study by Stein and Christiansen (2010).

Stein and Christiansen (2010) further emphasize that onboarding programs often remain stagnant and fail to adapt to changes in company strategy, shifts in the marketplace, or new measures implemented by competitors. To address these shortcomings, onboarding should encompass four essential pillars: providing support for early career development, orienting new hires to the company's culture and performance values, providing insights into the company's strategic position, intentions, and direction, and facilitating activities and experiences that foster beneficial relationships for the new employees.

In conclusion, to ensure effective digital onboarding for blue-collar workers, organisations should invest in comprehensive digital literacy training and resources, provide a balanced approach that combines digital platforms with face-to-face interactions, and adopt a personalised onboarding approach that leverages technology to cater to individual needs. By implementing these measures, organisations can optimise the onboarding process, enhance employee

engagement, and unlock the full potential of digital onboarding in the context of blue-collar workers.

By shifting the onboarding focus to be employee-centred and leveraging technology for personalisation, organisations can create a more effective and meaningful onboarding experience for blue-collar workers.

2.3.1 What is the influence of digital onboarding on blue-collar workers within the EEMR organisations in South Africa?

Digital onboarding refers to the use of digital technologies in introducing new employees to an organisation and its culture. It involves various methods such as online training, gamification, orientation videos, and digital forms and compliance policies.

The primary goal of digital onboarding is to ensure a smooth transition for new employees, equipping them with the necessary knowledge and skills to perform their job responsibilities effectively.

According to Bauer (2010) the digital onboarding process encompasses four key components known as the Four C's: Compliance, Clarification, Culture, and Connection. Compliance involves teaching new employees basic legal and policy-related rules and regulations. Clarification ensures that employees understand their roles and related expectations. Culture provides employees with a sense of the organisation's formal and informal norms. Connection focuses on establishing vital interpersonal relationships, socialisation, and information networks within the organisation.

The effectiveness of digital onboarding varies across different organisations, Bauer (2010) findings suggest that most falling into one of three levels: passive onboarding, high potential onboarding, and proactive onboarding.

Passive onboarding primarily focuses on compliance, while role clarification, culture, and connection are not adequately addressed. High potential onboarding

covers compliance and clarification in a systematic manner and includes some culture and connection mechanisms. Proactive onboarding represents the highest level, where all four building blocks are formally addressed, and onboarding is strategically managed by the organisation.

Effective onboarding processes have a range of positive outcomes for both employees and organisations. Research conducted by Bauer (2010) suggests that successful onboarding can lead to job satisfaction, organisational commitment, lower staff turnover rates, high performance levels, improved career effectiveness, and reduced stress.

Furthermore, Bauer (2010) highlights that a well-executed onboarding process enhances long-term relationships between employees and the organisation. Thus, Bauer (2010) suggests that employees typically have around ninety (90) days to prove themselves in a new job.

Several models and frameworks have been developed to inform and guide digital onboarding practices. Kumar (2017) proposed a four-stage onboarding process, including pre-joining, first day at work, integration with a team, and interactions with HR, feedback, and training and development. This model highlights the importance of a comprehensive approach to onboarding that involves both HR and front-line managers.

Maanen and Schein (1979) presented a model of socialisation that identified six (6) dimensions, including collective vs individual socialisation processes, formal vs informal socialisation processes, and sequential vs random steps in the socialisation process. Klein and Heuser (2008) expanded upon this model, identifying twelve (12) content areas that contribute to effective socialisation. Their Inform-Welcome-Guide (IWG) model emphasises communication, resources, training, social connections, and individual support through mentors or buddies.

Bauer (2010) developed the "4Cs" model, which aligns with the building blocks of digital onboarding. This model highlights the importance of compliance, clarification, culture, and connection in the onboarding process.

Meyer and Bartels (2017) found that all four levels of the 4Cs model are necessary, with connection being particularly important for perceived utility of the onboarding program, organisational support, commitment, and job satisfaction.

Table 2: 4 Cs Onboarding strategy level by Bauer (2010)

Onboarding strategy level

| | Compliance | Clarification | Culture | Connection |
|-------------------|------------|---------------|---------------|---------------|
| Passive L1 | YES | SOME | LITTLE / NONE | LITTLE / NONE |
| High Potential L2 | YES | YES | SOME | SOME |
| Proactive L3 | YES | YES | YES | YES |

In summary, digital onboarding is a crucial process for organisations to facilitate the successful integration of new employees. It involves leveraging digital technologies to streamline the onboarding process, provide access to online resources, and create a positive onboarding experience.

Research emphasises the importance of addressing compliance, clarification, culture, and connection in the onboarding process. Effective onboarding has numerous benefits for employees and organisations, leading to increased job satisfaction, commitment, and performance. Models and frameworks such as the 4Cs model, IWG model, and the stages proposed by Kumar (2017) provide valuable guidance for designing and implementing effective digital onboarding processes.

Although onboarding using technology offers numerous advantages, it is essential to recognise that effective onboarding requires a tailored approach. Ziden and Joo (2020) stress that one size does not fit all when it comes to onboarding. Organisations should consider the unique characteristics and needs of their employees to create a customised digital onboarding experience that maximizes engagement, impact and effectiveness.

Levers for successful onboarding include an onboarding track record for employees to assess their own onboarding and to analyse any strengths and weaknesses in the process for the organisation to continuously improve. Bauer (2010) recommends including self-efficacy, role clarity, social integration, and knowledge of and fit within an organisations culture.

Digital onboarding plays a vital role in inculcating an organisations culture through consistent messaging and communication of the organisations values and mission, it further facilitates social connections between new hires and existing employees helping to build relationships and a sense of community. Importantly, digital onboarding provides continuous reinforcement of the company culture through check-ins, pulse survey's and feedback mechanisms.

2.3.2 What are the lived experiences of digital onboarding on blue-collar workers with the EEMR organisation in South Africa?

Employee experience is a worker's perception about his or her journey through all the touchpoints at a particular company, starting with job candidacy through to the exit from the company. The physical workspace, organisational culture and technology all contribute to the employee experience.

Sani and Adisa (2022) held a view that a positive employee experience leads to more engaged and productive employees, improved retention rates, workplace safety, lower absenteeism, improved morale, increased quality of work, and enhanced customer relations.

However, the introduction of digital onboarding can also bring about certain experiences for employees:

- I. **Anxiety and stress:** some workers may feel overwhelmed or anxious about using new technology, especially if they have limited experience or confidence with digital tools.
- II. **Frustration and confusion:** if the digital onboarding process is not user-friendly or intuitive, workers may become frustrated and confused, leading to a negative experience.
- III. **Empowerment and confidence:** for workers who can successfully navigate the digital onboarding process, it may lead to a sense of empowerment and increased confidence in their ability to learn and use new technologies.
- IV. **Sense of isolation:** if the digital onboarding process is entirely self-guided and lacks opportunities for interaction or support, workers may feel isolated and disconnected from the organisation and their colleagues.
- V. **Enhanced job performance:** if the digital onboarding process effectively prepares workers for their roles and provides them with the necessary information and resources, it may lead to enhanced job performance and productivity.

An empirical study conducted by Sani and Adisa (2022) in the UK on “digital onboarding and employee outcomes” revealed negative impacts including dwindling social connectedness and personal wellbeing, perceptions of meaningful and meaningless work and poor employee relations.

The negative impacts found in Sani’s (2022) study show employees who feel abandoned in the socialisation process may face the challenges of role ambiguity, trust issues and meaningful work due to social disconnection from the workplace.

Lee (2023) provided a different dimension that explored Imposter syndrome, which is a psychological phenomenon where individuals doubt their accomplishments and have a persistent fear of being exposed as a fraud, despite evidence of their

competence. It is not considered a diagnosable condition or mental disorder, but it can significantly impact an individual's well-being. Those who experience sustained exposure to imposterism may exhibit higher levels of depression, anxiety, and self-doubt.

According to Lee (2023) in order to mitigate the negative effects of imposter syndrome, it is important to establish regular positive feedback and create an environment that encourages the development of self-esteem. By providing support and recognition, organisations can help decrease negative thoughts associated with imposter syndrome and reduce its onset.

In line with addressing the challenges posed by imposter syndrome, Sani and Adisa (2022) emphasise the importance of redesigning the onboarding process to be "fit for purpose". This means tailoring the onboarding experience to meet the specific needs and preferences of new hires, resulting in more positive employee outcomes. Cable, Gino and Staats (2013) had similar views and explained that a well-designed onboarding process can lead to increased engagement, commitment, and reduced turnover intentions among new employees.

It's worth noting that onboarding and orientation are often used interchangeably, but they have distinct differences. Orientation typically refers to the initial days or weeks of a new hire's employment when the organisation provides them with essential information and introductions.

Onboarding, on the other hand, is a more comprehensive process that lasts approximately ninety (90) days. Based on an article by Vernon (2012) It involves orientating and integrating new hires into the organisation, equipping them to deliver results efficiently, effectively, and energetically.

Here are some keyways in which onboarding contributes to the adjustment and success of new employees:

- I. Relationship building: effective onboarding programs focus on establishing positive relationships between new employees and their colleagues,

supervisors, and other stakeholders within the organisation. By facilitating social connections and encouraging interactions, onboarding helps create a sense of belonging, support, and teamwork, which in turn increases job satisfaction.

- II. **Expectation setting:** onboarding provides an opportunity to clarify expectations and objectives for new employees. Through clear communication, goal setting, and performance feedback, employees gain a better understanding of their roles, responsibilities, and performance standards. This clarity helps improve performance and productivity by aligning employees' efforts with organisational goals.
- III. **Skill development:** onboarding programs often include training and development components that aim to enhance the skills and knowledge of new employees. These programs may cover job-specific skills, technical training, organisational policies and procedures, and any necessary compliance training. By equipping new employees with the necessary skills, onboarding helps them perform their roles effectively and efficiently.
- IV. **Support and guidance:** new employees often require support and guidance as they navigate their new roles and organisational environment. Onboarding programs provide resources, mentors, and support systems to assist new hires in their adjustment process. This support helps reduce feelings of uncertainty and stress, increasing job satisfaction and reducing turnover.
- V. **Cultural assimilation:** organisational culture plays a significant role in employees' experience and job satisfaction. Onboarding helps new employees understand and assimilate into the organisational culture by introducing them to the values, norms, and practices of the organisation. By promoting cultural understanding and integration, onboarding enhances employee satisfaction and engagement.

- VI. Reducing high staff turnover: effective onboarding programs contribute to reducing unwanted turnover. By providing a positive and supportive experience for new employees, addressing their needs and concerns, and helping them acclimate to their roles, organisations can increase employee retention. Reduced turnover has numerous benefits, including cost savings associated with recruitment and training, continuity in team dynamics, and improved overall organisational performance.

Onboarding helps new employees adjust to their jobs by establishing better relationships to increase satisfaction, clarifying expectations and objectives to improve performance, and providing support to help reduce unwanted turnover.

2.3.3 Proposition - How does digital onboarding impact the human experience amongst blue-collar workers within the EEMR organisation in South Africa?

The role of digital onboarding in the human experience can have both positive and negative effects. On the positive side, digital onboarding can increase employee engagement and motivation, reduce turnover rates, and enhance job performance. It provides employees with access to online resources and personalised information, making it easier for them to navigate their new roles and responsibilities. Successful digital onboarding can also empower blue-collar workers and increase their confidence in using technology, allowing for self-paced learning and offline access capabilities.

On the contrary, there are potential challenges and negative experiences associated with digital onboarding. Some blue-collar workers may experience anxiety and stress when faced with new technology, especially if they have limited digital literacy. Frustration and confusion can arise if the digital onboarding process is not user-friendly or intuitive. Additionally, a lack of face-to-face interactions and support during the onboarding process can lead to a sense of isolation and disconnection from the organisation and colleagues.

Research suggests that the onboarding process, including digital onboarding, should be personalised, and tailored to meet the unique needs of individual employees. This includes providing comprehensive training and support to improve digital literacy skills, as well as incorporating opportunities for social interaction and support. A well-rounded onboarding approach that combines digital tools with in-person interactions can help create a more meaningful and effective onboarding experience for blue-collar workers.

To address the negative experiences and challenges associated with digital onboarding, organisations should consider redesigning the process to be "fit for purpose." This involves customising the onboarding experience to meet the specific needs of new employees, providing adequate support and resources, and fostering a sense of social connectedness and meaningful work. By addressing these factors, organisations can mitigate the negative impacts and maximize the benefits of digital onboarding in enhancing the human experience for employees.

2.4 What is the influence of digital onboarding on blue-collar workers within the EEMR organisation in South Africa?

Kapp and Defelice (2019) describe digital literacy as a critical factor in the success of digital onboarding. Blue-collar workers may have varying levels of digital literacy, and this can impact their ability to use digital onboarding platforms effectively.

Based on an article by Aster (2021) digital inclusion revolves around harnessing technology to support the processes of teaching and learning. When utilised effectively to meet the specific needs and desired outcomes of education, technology can have a positive impact on society.

Aster (2021) further explains that in the contemporary digital landscape, technology plays a crucial role in facilitating knowledge sharing and interpersonal interaction. It enables organisations to engage in communication and collaboration within communities of practice and focus groups. Moreover, technology allows organisations to expand their understanding and enhance their skill sets through

the utilisation of online resources, as well as participation in formal teaching and learning-oriented online training, workshops, and courses.

In a study conducted by Reilly (2016) providing accessible and user-friendly onboarding technology is crucial for ensuring a rich and meaningful experience for blue-collar workers. Features like multi-device compatibility, search functions, and bookmarks can enhance usability and facilitate knowledge retention.

Reilly (2016) explains that digital inclusion efforts should focus not only on onboarding processes but also on leveraging technology to support teaching and learning. Gerlitz and Schafer (2020) found that by integrating technology effectively into educational environments, organisations can empower blue-collar workers to access online resources, participate in training workshops, and develop their competencies.

The rapid advancement of automation, digital platforms, and technological innovations such as Artificial Intelligence (AI) and Machine Learning (ML) are transforming employment in the corporate sector, Meraqui (2022) found that it includes the blue-collar workforce. While these digital transformations were initially designed for white-collar labour, they are now being adapted for blue-collar workers as well.

Meraqui (2022) further states that to facilitate the transition to a technology-driven workforce, organisations must prioritise upskilling initiatives. Mapping the skill gaps within the blue-collar workforce is crucial to identify the specific competencies required for successful transitions. This information serves as the foundation for developing comprehensive development programs that address the identified skill gaps and mitigate their effect.

Effective upskilling requires engaging and easily understandable learning modules. Employing multimedia resources, such as videos and audio content, enhances the learning experience for blue-collar workers. Additionally, translating these resources into local languages ensures accessibility and comprehension across diverse personnel. Learning modules should be structured to introduce

fundamental concepts and progressively build industry-specific knowledge, empowering workers to expand their understanding of evolving principles as stated by Meraqui (2022).

Meraqui (2022) furthermore, emphasises the importance of recognising the unique skills, educational backgrounds, and learning styles of each employee is crucial in designing effective upskilling programs. Involving leaders and managers in the formulation of training initiatives enables a tailored approach to address specific challenges and strengths within the workforce. Peer-to-peer learning, such as the buddy shadowing approach, fosters an agile culture and encourages knowledge sharing. Additionally, expressing gratitude and providing recognition during the upskilling process ensures that no employee is left behind.

In conclusion, technological advancements should be seen as opportunities rather than threats to the blue-collar workforce. Upskilling plays a vital role in equipping blue-collar workers with the essential skills needed to adapt to the changing landscape of employment. By mapping skill gaps, providing engaging learning modules, and customising training initiatives, companies can empower their blue-collar workforce to thrive in a technology-driven future. It is imperative for organisations to invest in upskilling programs to ensure a smooth transition and foster a workforce capable of embracing technological disruptions.

By considering these insights, organisations can better understand the importance of digital literacy, the challenges faced by blue-collar workers, and the potential benefits of implementing effective digital onboarding strategies.

2.4.1 Establishing levels of digital literacy

The study conducted by Lee and Mohamed (2006) examine the profile and characteristics of blue-collar workers in South Africa, including their work environments and the types of tasks they perform. Lee and Mohamed (2006) discuss the challenges and opportunities facing blue-collar workers in the country. Understanding the specific context and challenges faced by blue-collar workers in

the country provides valuable insights for designing digital onboarding programs that meet their needs.

Stone and Henry (2003) highlight the importance of self-efficacy especially towards adoption of technology and the need for support and feedback when it affects the user's ability to comprehend and complete tasks that are perceived as important to the onboarding process.

Furthermore, Bauer (2010) argues that employees' self-efficacy levels have a significant impact on the organisation. When employees have higher levels of self-efficacy, they are more likely to feel confident in their abilities, perform well on the job, and contribute to the success of the organisation. Therefore, addressing digital literacy and self-efficacy during the onboarding process can have positive effects on both employees and the organisation.

The level of digital literacy among blue-collar workers may be influenced by factors such as age, educational background, and prior exposure to technology. Conducting a comprehensive assessment of these factors during the recruitment process can help identify potential gaps and tailor digital onboarding programs accordingly.

Considering these factors, organisations can assess the digital literacy levels of blue-collar workers, provide appropriate training and support, and emphasise self-efficacy to ensure successful digital onboarding and overall job performance.

2.4.2 The use of digital tools and platforms

Blue-collar workers in the Earthmoving Equipment Maintenance and Repair (EEMR) industry in South Africa may encounter difficulties when adapting to digital onboarding procedures due to variations in their digital literacy and experience levels. However, implementing digital onboarding processes within the EEMR

industry holds the potential to enhance employee satisfaction, improve retention rates, and ultimately contribute to better business performance.

To address the digital literacy gap among blue-collar workers, one potential solution is the utilisation of immersive digital solutions such as virtual reality (VR) and augmented reality (AR) technologies.

Research has shown that these technologies can be effective in training and upskilling employees Makransky, Meyer, Veitch and Hood (2019) suggest that by providing an immersive and interactive experience, VR and AR technologies enable employees to acquire new skills and learn processes in a controlled and safe environment. Thus, incorporating VR and AR technologies into the digital onboarding process could be a viable solution for blue-collar workers.

Stoiber, Wagner, Grassing, Pohl, Stitz, Streit, Potzmann and Aigner (2019) suggest that the concept of visualisation onboarding can be useful in understanding complex visualizations that require a deeper understanding (see Figure 2). Visualisation onboarding aims to support users in comprehending and extracting information from visual representations of data.

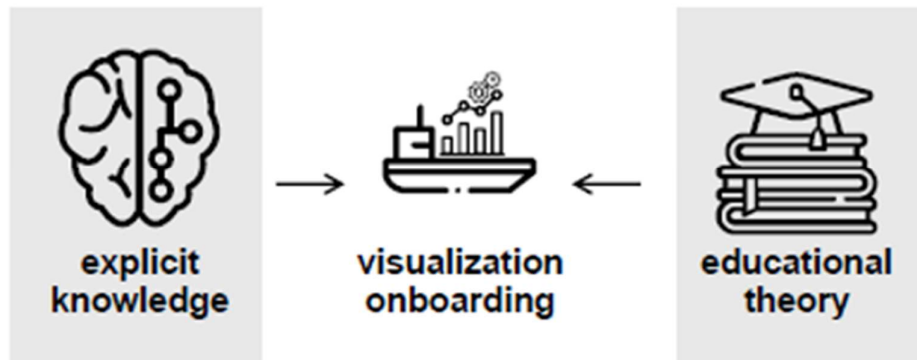


Figure 2: Visualisation onboarding Stoiber et al. (2019)

Skiles & Shafer (2018) propose that VR has various applications in the organisational socialisation process. AR can be utilised for training new hires, especially in more hazardous roles like machine assembly. VR can facilitate team

assimilation and foster a sense of inclusion during the onboarding process through immersive virtual experiences.

Skiles and Shafer (2018) highlight VR360 video technology, which provides immersive experiences that have a profound impact on the body, allowing users to deeply engage with the content. One notable advantage of VR 360 videos is the ability for users to empathize with the content, often referred to as the "total empathy machine." By creating experiences that trick the brain into perceiving presence, VR enhances the memorability and effectiveness of the onboarding process.

In response to the shortage of blue-collar workers, startups have emerged to connect these workers and employers, offering training programs to enhance their skills.

Aster (2021) emphasises the importance of training for both current employees and new recruits. Companies like Toyota utilise micro-learning platforms such as RapL (Rapid Learning) which provides AI-driven personalised, bite-sized and adaptive learning platforms to provide workforce training. Training initiatives extend beyond technical and digital knowledge to encompass areas such as company safety procedures and compliance with standards like EHOS (environment, health, safety) and ESG (environment, social, and governance).

Aster (2021) further explains that implementing structured training programs for blue-collar workers not only broadens their skill sets but also motivates them to be more productive while enhancing their analytical thinking and problem-solving capabilities.

In summary, by leveraging immersive digital solutions like VR and AR technologies and considering the insights from research on technology in onboarding, the challenges faced by blue-collar workers in adapting to digital onboarding processes in the EEMR industry can be addressed. This approach has the potential to enhance their learning experience and contribute to improved overall performance as explained by Makransky et al (2019).

2.4.3 Proposition - What is the influence of digital onboarding on blue-collar workers within the EEMR organisation in South Africa

Based on the literature review, the following proposition could be proposed:

Blue-collar workers in the EEMR industry in South Africa may face challenges in adapting to digital onboarding processes due to their varying levels of digital literacy and experience, it further has the potential to enhance employee satisfaction, increase retention rates, and ultimately lead to improved business performance and shorter lead time for workers to be deployed on-site.

Effective digital onboarding requires a comprehensive approach that addresses not only the technical aspects of the process but also the human experience, including issues of inclusion, cultural fit, and socialisation.

Immersive digital solutions, such as VR, may provide a viable alternative to traditional digital onboarding processes for blue-collar workers who are not digitally literate or who may struggle to engage with more traditional methods.

The following strategies and technologies could be considered for effective digital onboarding in the EEMR Industry:

Platforms for document completion and checklists: implementing user-friendly platforms or applications that allow blue-collar workers to complete necessary documents and checklists electronically can streamline the onboarding process and reduce paperwork.

Zero data approach: given that blue-collar workers may not have access to personal data or unlimited internet connectivity, adopting a “zero data” approach can be beneficial. This involves ringfencing essential business applications and providing access to necessary digital onboarding resources without consuming employees' personal data plans.

Learning Management Systems (LMS): utilising learning management systems can facilitate e-learning, compliance training, delivery of company videos, badging,

and even gamification elements. By leveraging an LMS, organisations can centralize onboarding resources and ensure consistent and standardised training for blue-collar workers.

Immersive experiences through VR and AR: VR and AR technologies can offer immersive experiences for safety training, compliance education, role-specific inductions, facility tours and the onboarding journey. These technologies provide interactive and engaging simulations that can enhance learning and understanding, especially for tasks or scenarios that are difficult to replicate in the real world.

By incorporating the above-mentioned digital tools and immersive experiences, organisations in the EEMR industry can overcome the challenges of digital literacy and engage blue-collar workers in the onboarding process effectively. However, it is important to validate these strategies and technologies within the specific context of the organisation and industry before implementing them.

2.5 What are the potential barriers to successful onboarding amongst blue-collar workers within the EEMR organisation in South Africa?

Vernon (2012) argues that the consequences of neglecting to invest in a well-developed onboarding program extend beyond the simple loss and replacement of new employees. Failing to effectively engage employees from day one, overlooking the importance of cultural fit, neglecting to align onboarding with desired skills, and failing to provide feedback on performance during the crucial habit-forming stage can result in significant costs. It is essential to establish behaviours that lay the groundwork for long-term success in the workplace.

Moreover, a survey conducted by Snell (2006) reveals that onboarding practices are inconsistent and unsatisfactory. The findings indicate that more than one-third of organisations lack formal processes to monitor and coordinate the completion of onboarding activities.

Snell (2006) further suggests that the key to successful onboarding lies in technology platforms that offer configurable workflows and seamless integration with an organisation's talent management system. Additionally, finding the right balance between organisational consistency and flexibility to address department-level needs is crucial.

Ineffective communication between the organisation and new employees can hinder the onboarding process. Clear and timely communication about expectations, job responsibilities, and company culture is crucial for new employees to feel informed and engaged.

Insufficient training can leave employees feeling ill-equipped to perform their job duties. Effective onboarding should include comprehensive training programs that cover both job-specific skills and broader organisational knowledge.

Lack of support from managers and colleagues can make new employees feel isolated and unsupported. Providing mentorship programs, assigning buddies, or establishing support networks can help new hires navigate their roles and foster a sense of belonging.

Inconsistent onboarding practices can lead to confusion and dissatisfaction among new employees. Organisations should establish standardised onboarding processes to ensure that all new hires receive a consistent and comprehensive experience.

Generic onboarding programs may not address the specific needs and responsibilities of different roles within the organisation. Role-specific onboarding that tailors the training and support to the individual's position and competence can enhance their ability to succeed in their new role.

The lack of socialisation opportunities and a buddy system can hinder the integration of new employees into the organisation's culture. Encouraging social interactions, assigning mentors or buddies, and facilitating team-building activities can promote a sense of belonging and support.

Lack of digital onboarding systems: organisations that do not have user-friendly and integrated digital onboarding systems may face challenges in delivering a seamless onboarding experience. Legacy systems or fragmented software solutions can result in inefficiencies and frustrations for new employees.

Lack of ownership: successful onboarding requires a shared ownership mentality, where different stakeholders collaborate and contribute their expertise to ensure a smooth transition and integration of new employees. Organisations need to establish clear lines of responsibility and promote cross-functional collaboration to achieve effective onboarding.

In summary, the failure to invest in effective onboarding programs can have significant repercussions beyond employee turnover. It is essential to engage employees from the beginning, align onboarding with desired skills, provide feedback on performance, and establish behaviours that contribute to long-term workplace success. Additionally, organisations should strive for consistency and flexibility in their onboarding practices, utilising technology platforms that support efficient and integrated processes as recommended by Vernon (2012) and Snell (2006).

2.6 ANALYTICAL FRAMEWORK

2.6.1 Theoretical framework

The Technology, Organisation, and Environment Framework (TOE) has been identified as the theoretical lens adopted for this study.

Four theories and models have been explored:

Technology, Organisation, and Environment Framework (TOE)

The Technology, Organisation, and Environment (TOE) framework is a theoretical model proposed by Fleischer and Tomatzky (1990) to investigate the factors influencing the adoption and implementation of technological innovations within

organisations. Fleischer and Tomatzky (1990) highlight that it assists in understanding how three contextual aspects of technology, organisation and environment influence an organisations decision to adopt and utilise a particular technology.

The TOE framework, initially proposed by Fleischer and Tomatzky in 1990, has been used in a variety of fields and industries, including studies focused on digital onboarding.

- I. **Technology context:** Fleischer and Tomatzky (1990) highlights that this involves both external and internal technologies relevant to the organisation. External technologies refer to the technologies available in the market, which the organisation may adopt. Internal technologies are those that are already being used within the organisation. The organisation needs to evaluate the current digital onboarding technologies available in the market, understand their features, benefits, and limitations, and assess how these new technologies will interact or integrate with the existing technologies within the organisation.
- II. **Organisation context:** Fleischer and Tomatzky (1990) refers to descriptive measures about the organisation such as scope, size, and managerial structure. It also includes resources, such as human and financial, and the number of slack resources available for new technology adoption. Factors such as the size of the organisation, the resources available for the implementation and maintenance of a digital onboarding system, and the readiness of the organisation's structure and culture to adapt to a digital onboarding approach will all play crucial roles.
- III. **Environment context:** This context pertains to the surrounding atmosphere in which the organisation conducts its business. Fleischer and Tomatzky (1990) indicates that it could be the industry, market, government regulation, or broader social or global influences. Regulatory requirements, industry

trends, market competition, and overall social or global influence can impact the decision to implement a digital onboarding system.

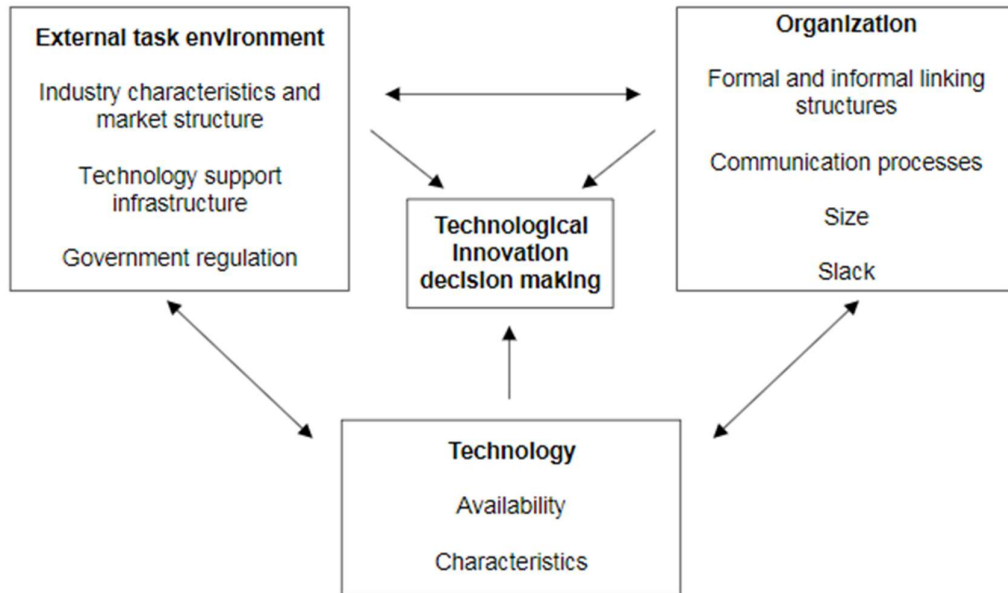


Figure 3: Technology, organisation, and environment framework (Fleischer and Tomatzky, 1990)

Oliveira and Martins (2011) suggests that by considering the interplay of these three contexts, organisations can make informed decisions about whether to adopt a new technology, such as a digital onboarding platform, and how to best implement and optimise it for their specific needs.

Unified Theory of Acceptance and Use of Technology (UTAUT)

The Unified Theory of Acceptance and Use of Technology (UTAUT) is a comprehensive theoretical framework that seeks to explain individuals' acceptance and usage of technology. Developed by Venkatesh, Morris, Davis and Davis (2003), the UTAUT integrates various existing theories and models to provide a holistic understanding of the factors influencing technology adoption and usage. This literature review aims to examine the key components and empirical studies

related to the UTAUT, highlighting its significance in understanding technology acceptance and usage behaviors.

Holden and Karsh (2010) conducted a study titled "The Technology Acceptance Model: Its past and its future in health care" in the Journal of Biomedical Informatics. The study aimed to examine the Technology Acceptance Model (TAM) and its relevance in the healthcare context. The TAM is a widely recognised theoretical framework that explains individuals' acceptance and usage of information technology. In their research, Holden and Karsh (2010) explored the past and future implications of the TAM in healthcare settings, specifically focusing on electronic medical records (EMRs).

Moon and Kim (2001) conducted a study titled "Extending the TAM for a World-Wide-Web context" in the Information & Management journal. Their research aimed to extend the TAM framework to the context of the World Wide Web. They examined the factors influencing users' acceptance and usage of websites and online platforms, with a particular focus on performance expectancy, effort expectancy, and social influence.

Venkatesh et al. (2003) published a study titled "User acceptance of information technology: Toward a unified view" in MIS Quarterly. Their research aimed to develop the Unified Theory of Acceptance and Use of Technology (UTAUT) by integrating various existing theories and models. The UTAUT provides a comprehensive framework for understanding individuals' acceptance and usage of technology, incorporating constructs such as performance expectancy, effort expectancy, social influence, and facilitating conditions.

Zhou (2014) conducted an empirical examination of initial trust in mobile banking. The study aimed to investigate the factors influencing individuals' initial trust in mobile banking services. Zhou (2014) extended the UTAUT framework by including perceived enjoyment and perceived risk as supplementary variables in the context of mobile banking adoption.

The UTAUT incorporates four main constructs: performance expectancy, effort expectancy, social influence, and facilitating conditions. Performance expectancy refers to the degree to which individuals believe that using technology will enhance their job performance or productivity. Effort expectancy pertains to the perception of ease of use and the effort required to operate the technology. Social influence encompasses the influence of others' opinions, norms, and support in shaping individuals' intentions to use technology. Facilitating conditions include the resources and support available to individuals to facilitate technology use.

In summary, these studies contribute to the understanding of technology acceptance and usage across different domains. They explore the applicability of theoretical frameworks such as the TAM and UTAUT, extending them to specific contexts such as healthcare and the World Wide Web. The findings from these studies provide insights into the factors that influence individuals' acceptance and usage of technology, helping organisations and researchers develop strategies to enhance technology adoption and implementation.

Phenomenology theory

Phenomenology is a philosophical and methodological approach that focuses on the study of human experience and consciousness. It seeks to understand the subjective meaning and lived experiences of individuals in various contexts. Phenomenology as a theory has been influential across a range of disciplines, including philosophy, psychology, sociology, and qualitative research.

Edmund Husserl is considered the founder of phenomenology, and his work laid the foundation for the development of this theoretical perspective. Husserl (1962) emphasised the importance of bracketing or suspending preconceived notions and judgments to explore the pure essence of phenomena and the subjective experience of consciousness.

Manen (2016) explores the application of phenomenology in educational research, emphasising the significance of studying lived experiences to inform pedagogical

practices. He emphasises the importance of bridging theory and practice in research.

Overall, phenomenology provides a valuable framework for exploring and understanding human experience and consciousness. It offers a rich and nuanced understanding of the subjective meanings and essences attributed to phenomena, contributing to our knowledge of human existence and the complexities of lived experience.

Constructivism theory

Constructivism is a prominent educational theory that emphasises the active role of learners in constructing knowledge and understanding. Grounded in the belief that learning is a subjective and social process, constructivism posits that learners actively construct meaning by integrating new information and experiences with their existing knowledge.

In "The case for constructivist classrooms," Brooks and Brooks (1993) argue for the implementation of constructivist approaches in educational settings. They highlight the limitations of traditional, teacher-centred instruction and advocate for a shift towards constructivist practices that promote active student engagement, collaboration, and meaning-making. The authors emphasise the importance of creating a classroom environment that encourages exploration, inquiry, and reflection, allowing students to construct their own knowledge and understanding.

Jonassen and Murphy (1999) discuss the key principles and characteristics of constructivism and explores how instructional designers can create learning experiences that align with constructivist principles. Jonassen emphasises the importance of authentic contexts, collaborative learning, and the integration of technology to support active engagement and knowledge construction among learners.

Constructivism theory offers valuable insights into the process of learning and knowledge construction. By emphasising the active role of learners, the integration

of prior knowledge, social interaction, and authentic learning experiences, constructivism provides a framework for designing learner-centred and engaging educational practices. Its implications for teaching and learning promote critical thinking, collaboration, and the development of lifelong learning skills.

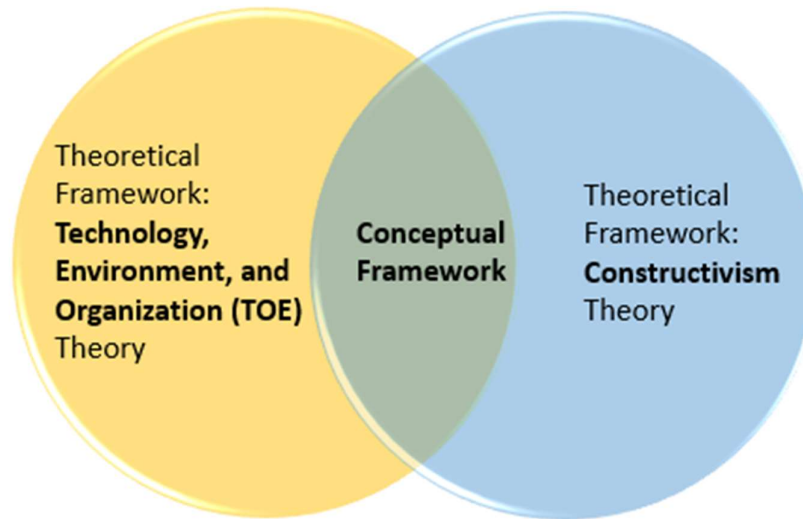


Figure 4: Conceptual framework

2.7 Conclusion of literature review

In conclusion, this literature review examined the concept of digital onboarding within an Earthmoving Equipment Maintenance and Repair organisation from the perspective of blue-collar workers in South Africa. The review highlighted the importance of effective onboarding processes in facilitating the successful integration of new employees and their adaptation to digital tools and technologies in the workplace.

The findings of this literature review indicate that digital onboarding can bring numerous benefits to both the organisation and its blue-collar workers. Firstly, it can enhance productivity and efficiency by ensuring that employees have the necessary skills and knowledge to utilise digital tools effectively. Secondly, it can

promote employee engagement and job satisfaction by providing clear guidelines and support during the transition to digital processes. Moreover, it can contribute to the overall improvement of safety practices and reduce the risk of accidents and lost-time injuries through proper training and familiarisation with digital systems.

However, it is crucial to acknowledge the potential challenges associated with digital onboarding. This review identified the following challenges, resistance to change, lack of access to technology, and language barriers as significant obstacles that need to be addressed. To overcome these challenges, organisations should invest in comprehensive training programs, provide accessible technology infrastructure, and ensure effective communication channels to facilitate smooth onboarding experiences for blue-collar workers.

Furthermore, this literature review emphasised the need for further research on the specific context of South Africa and its unique challenges regarding digital onboarding in Earthmoving Equipment Maintenance and Repair organisations. Future studies could explore the perspectives of blue-collar workers in more detail, considering their cultural backgrounds, language preferences, and individual learning needs.

Overall, this literature review underscores the significance of digital onboarding in improving the integration of blue-collar workers into digitalized work environments. By addressing the challenges and leveraging the benefits of digital onboarding, Earthmoving Equipment Maintenance and Repair organisations in South Africa can create a more inclusive, efficient, and safe working environment for their employees, ultimately contributing to the success and growth of the organisation.

CHAPTER 3. RESEARCH METHODOLOGY

The present research study aims to investigate the role of digital onboarding on the human experience of blue-collar workers within the EEMR organisation in South Africa. Specifically, the study seeks to examine the influence of digital onboarding, identify current digital onboarding practices, explore the attitudes of blue-collar workers towards digital onboarding, and identify barriers to successful onboarding and their resulting outcomes.

The choice of the EEMR organisation as the study's focal point is based on several reasons. Firstly, despite the significant economic contribution of blue-collar workers, they may not possess extensive digital literacy and may encounter difficulties in utilising technology within the workplace. Secondly, the aim was to investigate the impact of digital onboarding on blue-collar workers and identify any barriers that hinder successful onboarding.

Muncaster (2023) Suggests that by understanding the challenges faced by this specific group, organisations can enhance their digital transformation efforts and improve the overall employee experience.

Lester (1999) provides valuable perspectives on the use of phenomenological methods in qualitative research design, used to explore and understand human behaviour from the individual's viewpoint. Central to this approach is the guiding principle of achieving saturation, which is the stage at which no new information or themes are observed in the data.

The sampled organisation currently offers digital onboarding, which can be daunting for employees with limited digital literacy. Moreover, line managers do not consider onboarding as a mandatory requirement, leading to crucial steps being overlooked.

Upon conducting the literature review, a research gap was identified, highlighting the need for a theoretically grounded model that can assist organisations in understanding the impact of digital onboarding on blue-collar workers and its

contribution to a more inclusive workforce. Therefore, this study provided an opportunity to synthesize existing literature and propose a model that significantly contributes to the understanding of digital onboarding among blue-collar workers and sheds light on why companies and individuals may fail to recognise and respond to it adequately.

By bridging theoretical concepts with practical insights from a “worldview”, this research aimed to gain a comprehensive understanding of the effects of digital onboarding on blue-collar workers and contribute valuable knowledge regarding industry changes, this extends to the organisation level, allowing organisations to adapt and respond more effectively.

The primary focus of this chapter was to outline the methods and procedures employed to assess the feasibility of the proposed model among blue-collar workers (apprentices and mechanics).

The research adopted an exploratory study framework, grounded in a phenomenological paradigm, leveraging qualitative research methodology. This approach has provided detailed insights into the research strategy used to test the proposed model and data collected for analysis. Additionally, potential limitations and challenges associated with the chosen research strategy and its implementation have been thoroughly documented.

By adopting this comprehensive research methodology, the study seeks to advance knowledge on the role of digital onboarding for blue-collar workers, contributing to both theoretical and practical understandings in the field.

This research further aimed to contribute to the existing literature by providing insights into the digital onboarding process from the perspective of blue-collar workers in the context of Earthmoving Equipment Maintenance and Repair organisations in South Africa. The findings of this study will inform organisations about the challenges faced by blue-collar workers during digital onboarding and guide the development of effective onboarding strategies. Additionally, the study

contributes to the body of knowledge regarding the benefits and outcomes of digital onboarding on blue-collar workers' integration and job performance.

3.1 Research approach

This study adopted a qualitative research approach. It involved the collection and analysis of non-numerical data, such as interviews, observations, and textual sources, to gain an in-depth understanding of the participants' experiences, perspectives, and social realities. This section provides a brief review of relevant literature that highlights the benefits and characteristics of qualitative research.

According to Creswell (2013), qualitative research allows researchers to explore the social and cultural contexts of phenomena, uncover multiple perspectives, and understand the meanings and interpretations that individuals assign to their experiences. By employing qualitative methods, researchers can delve into the complexities and subtleties of human behaviour, capturing the depth and richness of participants' narratives.

One key characteristic of qualitative research is its flexibility, allowing researchers to adapt their methods and approaches throughout the research process. As highlighted by Denzin and Lincoln (2017), qualitative research is an iterative and reflexive process that embraces emergent design, enabling researchers to explore unanticipated aspects and adjust their data collection and analysis strategies accordingly.

The research objectives are to understand the experiences and perceptions of blue-collar workers regarding digital onboarding within an Earthmoving Equipment Maintenance and Repair organisation in South Africa.

To identify the challenges faced by blue-collar workers during the digital onboarding process and to explore the benefits and outcomes of effective digital onboarding on blue-collar workers' integration and job performance.

Another advantage of qualitative research is its ability to generate thick descriptions. Geertz (1973) introduced the concept of thick description, emphasising the need to provide detailed and contextualized accounts of social phenomena. Qualitative research methods, such as in-depth interviews and participant observation, enable researchers to capture the intricacies, nuances, and meanings that may be overlooked in quantitative research.

Furthermore, qualitative research promotes the exploration of subjective experiences and interpretations. This approach acknowledges that individuals construct their own realities and that understanding these constructions is essential for capturing the complexity of human phenomena.

Charmaz (2014) argues that qualitative research provides a platform for participants to express their lived experiences, perceptions, and emotions, giving voice to those who are often marginalized or overlooked.

3.2 Research design

This study adopted a qualitative research design to gain an in-depth understanding of the experiences, perceptions, and challenges of blue-collar workers regarding digital onboarding. Qualitative research allows for the exploration of complex phenomena in their natural context, enabling researchers to capture rich and nuanced data.

The following research questions will be investigated:

- I. How does digital onboarding impact the human experience of blue-collar workers within the EEMR organisation in South Africa?
- II. What is the influence of digital onboarding on blue-collar workers within the EEMR organisations in South Africa?
- III. Evaluate the current digital onboarding processes in place and their acceptance amongst blue-collar workers with in the EEMR organisation in South Africa?

IV. What are the potential barriers to successful onboarding amongst blue-collar workers within the EEMR organisation?

The primary data collection method was semi-structured interviews. These interviews allowed participants to express their experiences, challenges, and perceptions regarding digital onboarding. Additional data sources such as observation and document analysis will be utilised to complement the interview data.

The analysis of the data collection is covered extensively in Chapter 4, followed by a comprehensive overview of the findings in Chapter 5, ending with the recommendations and conclusion in Chapter 6.

The advantages of qualitative research allowed for a deep exploration of the experiences, perspectives, and meanings associated with digital onboarding. Through methods like interviews and observations, researchers can gather rich and detailed data that provides a comprehensive understanding of the phenomenon.

Furthermore, the qualitative research design enabled the study of digital onboarding within the specific organisational and cultural context of Earthmoving Equipment Maintenance and Repair organisations in South Africa. This context-specific understanding helped identify unique challenges, practices, and opportunities related to digital onboarding.

Importantly, it prioritised the voices and perspectives of blue-collar workers. By engaging in in-depth interviews and observations, the lived experiences, challenges, and perceptions of the workers themselves were captured, providing an authentic representation of their experiences.

The disadvantages are that qualitative research is often context-specific and may not be easily generalisable to other settings or populations. The focus on rich, detailed data from a limited sample means that the findings may not be representative of the broader population of blue-collar workers or other industries.

3.3 Data collection methods

The interviews were conducted in person using Microsoft Teams, a cloud-based remote working and videoconferencing solution to record all sessions. Each interview session was approximately between (30) thirty to sixty (60) minutes long and was scheduled using Microsoft Outlook, a cloud-based diary management system.

Furthermore, the sessions were automatically recorded and transcribed through Microsoft Teams' cloud-based transcription service. This feature facilitated rapid analysis of the results and provided ease of capturing key themes, quotes, and observations.

The findings of this study provide the reader with a comprehensive framework for understanding the impact of digital onboarding on blue-collar workers within the Earthmoving Equipment Maintenance and Repair organisation.

Participants were identified from the blue-collar worker population who have between \leq one year (1) or less of service with the selected organisation. Information about the study's purpose, procedures, and their rights as participants have been communicated and shared.

Written informed consent from each participant was obtained, ensuring they understood their voluntary participation, confidentiality, and their ability to withdraw from the study at any time.

A semi-structured interview guide was developed that included a set of open-ended questions and prompts. The guide covered relevant topics such as participants' prior experiences with digital technologies, their perceptions of digital onboarding, challenges faced, benefits perceived, and suggestions for improvement. The interview guide provided a flexible framework to guide the interview while allowing for the exploration of participants' unique experiences and perspectives.

A pilot test of the interview guide with a small sample of blue-collar workers was conducted. This was to help identify any issues with the wording, flow, or relevance of the questions. Adjustments to the interview guide were made based on the feedback received to ensure clarity and appropriateness for the target population.

3.4 Population, demographics and sample

The population consisted of blue-collar workers (apprentices and mechanics) within the sampled organisation operating in the EEMR industry. Data collection methods included semi-structured interviews. The data was analysed using thematic analysis to identify patterns and themes.

3.4.1 Population

The study employed purposive sampling to select blue-collar workers (apprentices and mechanics) from different areas within the sampled Earthmoving Equipment Maintenance and Repair organisation in South Africa. The sample aimed to represent diverse backgrounds, and experiences within the organisation.

The following were the targeted participants and the reasons for their selection to participate in this study.

Table 3: Population and criteria for sample selection

| Population | Criteria |
|--|--|
| Group 1: Blue-collar workers (apprentices and mechanics) | <ul style="list-style-type: none"> • Appointed within the past year (1) • Technical hands-on experience • Based in the workshop, customer sites and or out on the field repairing Machines. |

3.4.2 Demographics of population

To comprehensively assess the participants' perceptions, challenges, and concerns related to Digital Onboarding among blue-collar workers, the study focuses on a specific group. A mix of sixteen (16) participants, primarily apprentices, at the sampled EEMR organisation in Johannesburg, South Africa, were selected for semi-structured interviews. The participants, representing a gender-diverse group, had joined the organisation within the past year. Thematic analysis, guided by an interview structure, was employed to categorise, and synthesize the findings.

Table 4 below provides an overview of the participants and their demographics:

Table 4: Participants demographics

| Participant ID | Gender | Job Role | Tenure in Organisation | Location |
|----------------|--------|------------|-----------------------------|----------------------|
| P1 | Female | Apprentice | Less than 1 year (7 months) | Isando, Kempton Park |
| P2 | Male | Apprentice | Less than 1 year (7 months) | Isando, Kempton Park |
| P3 | Male | Apprentice | Less than 1 year (7 months) | Isando, Kempton Park |
| P4 | Male | Apprentice | Less than 1 year (7 months) | Isando, Kempton Park |
| P5 | Male | Apprentice | Less than 1 year (7 months) | Isando, Kempton Park |

| | | | | |
|------------|--------|------------|------------------------------|----------------------|
| P6 | Female | Apprentice | Less than 1 year (7 months) | Isando, Kempton Park |
| P7 | Female | Apprentice | Less than 1 year (7 months) | Isando, Kempton Park |
| P8 | Female | Apprentice | Less than 1 year (10 months) | Isando, Kempton Park |
| P9 | Female | Apprentice | Less than 1 year (10 months) | Isando, Kempton Park |
| P10 | Female | Apprentice | Less than 1 year (10 months) | Boksburg |
| P11 | Female | Apprentice | Less than 1 year (10 months) | Boksburg |
| P12 | Female | Apprentice | Less than 1 year (10 months) | Boksburg |
| P13 | Female | Apprentice | Less than 1 year (10 months) | Boksburg |
| P14 | Male | Apprentice | Less than 1 year (10 months) | Boksburg |
| P15 | Male | Apprentice | Less than 1 year (10 months) | Boksburg |
| P16 | Female | Mechanic | Less than 1 year (5 months) | Boksburg |

Future studies could explore the perspectives of blue-collar workers in more detail, considering their gender and cultural background needs.

3.4.3 Sample and sampling method

Purposive or selective sampling in the form of non-random sampling is what the study has relied on. The concept was that the research questions should provide guidance on which specific units or individuals should be included in the sample as described by Bryman (2012). And are selected based on specific criteria that align with the research objectives and the characteristics of the target population.

Transparency was applied to the sampling strategy and clearly described the participant selection criteria to ensure transparency and enable readers to assess the generalisability of the findings.

The employees have different levels of experience and occupations in the EEMR organisation. The sample size includes sixteen (16) participants of blue-collar workers (apprentices and mechanics) of the sampled organisation within the EEMR Industry.

Table 5: Participant criteria

| Criteria | Rationale |
|--|--|
| The participant must be an employee of the sampled organisation within the EEMR industry | Since the study is conducted towards the EEMR Industry |
| Newly appointed blue-collar workers (apprentices and mechanics) having | The focus is on digital onboarding and is required to understand the human |

| | |
|---|---|
| joined within one (1) year or less of conducting this study | experience of those newly appointed blue-collar workers |
|---|---|

3.5 The research instrument

An interview guide was used to conduct semi-structured interviews with the identified blue-collar workers. The interview guide provided a flexible framework for the interview while allowing for open-ended questioning and exploration of participants' experiences, worldviews and perspectives as guided by Bryman (2012).

The interview guide included an introduction that explained the purpose of the study, the interviewer's role, and the voluntary nature of participation highlighting confidentiality and the rights of participants.

3.6 Procedure for Data Collection

With participants' consent, audio recordings of the interviews captured the rich data and ensured accuracy during transcription. Simultaneously, detailed notes of non-verbal cues, observations, and any other relevant contextual information that may aid in data analysis were taken.

3.7 Data analysis strategies and interpretation

According to Bryman (2012) thematic analysis involves identifying, analysing, and interpreting patterns or themes within the qualitative data. Researchers can code the data to assign labels or codes to segments of information that capture meaningful concepts or ideas. Through ATLAS.ti qualitative software iterative coding, patterns and themes can emerge, providing insights into the experiences and perceptions of blue-collar workers regarding digital onboarding.

3.8 Possible limitations and challenges of the study

The study focused on the perspectives of blue-collar workers, and therefore, the views of other stakeholders were not fully explored, which could create possible gaps that may require additional unforeseen data. Additionally, the findings may be specific to the context of South Africa and may not be generalisable to other geographical locations or industries.

3.9 Quality assurance

By implementing rigorous research design, data collection techniques, and data analysis procedures, quality assurance safeguards against potential biases and ensures the integrity of the study. This, in turn, enhances the reliability and validity of the findings, strengthening the overall quality of the study.

This includes ensuring clear and consistent interview protocols, and appropriate documentation of the data collection process. By employing standardised procedures and protocols, quality assurance minimizes errors and inconsistencies in data gathering, leading to more accurate and reliable findings.

Furthermore, ensuring ethical considerations are adhered to throughout the study. This involves obtaining informed consent from participants, protecting their confidentiality, and addressing any potential ethical issues that may arise.

3.9.1 Transferability

Bryman (2012) explains that transferability promotes the identification of common themes, patterns, and experiences across different contexts. By examining how digital onboarding affects the human experience among blue-collar workers in various industries, the study can uncover shared challenges, best practices, and potential solutions that can be transferred to other similar contexts.

This allows organisations to gain a broader understanding of the potential effects of digital onboarding and apply relevant strategies to optimise the human experience for their blue-collar workforce.

Thus, the transferability of findings supports evidence-based decision-making and the development of targeted interventions. By leveraging the insights gained from the study, organisations can design interventions that address specific challenges or enhance positive aspects of the digital onboarding process, thus improving the overall human experience for blue-collar workers.

3.9.2 Credibility

The researcher will employ the "showing rather than telling" method by utilising Multivocality by Tracy (2010) which indicates their acknowledgement of cultural disparities between themselves and the participants. It is crucial to recognise that differences in race, class, gender, age, or sexuality can lead to divergent interpretations within the research field.

By actively considering these factors, the research gains credibility and demonstrates an understanding of the importance of attending to diverse perspectives and meanings.

3.9.3 Dependability

To ensure dependability, the study maintains a complete audit of the interviews using secure, on-demand cloud-based platforms. This includes documentation of interview questions, rich descriptors, and how the questions relate to the key components of the framework being tested. As referred by Bryman (2012) by maintaining consistency in asking the same questions in the same order, probing for more information, and validating each participant's responses, a higher level of trustworthiness is achieved.

The research rationale and approach is clearly presented, acknowledging the possibility of gaps that may require additional unforeseen data. By addressing the limitations of the research and outlining the methods used to minimize potential criticisms, demonstrating a comprehensive and proactive approach to ensure the reliability of the findings.

3.10 Ethical considerations

The qualitative research on blue-collar workers incorporates several ethical considerations. This study is categorised as low risk as it does not involve any potential harm or the presentation of radical views that may lead to adverse outcomes.

Before conducting the interviews, participants were required to provide signed consent, ensuring their voluntary participation, and understanding of the study's purpose and procedures. To safeguard the confidentiality of participants, appropriate measures have been implemented.

Ethical approval was sought from the relevant research ethics committee, and all necessary steps have been taken to maintain participant confidentiality throughout the study.

3.11 Proposed schedule and timelines



Figure 5: Gant chart of the proposed schedule

The interviews were scheduled and took place during November 2023, once ethical clearance was obtained. Following the interviews, data collection was conducted, followed by a thematic analysis of the identified trends and findings.

CHAPTER 4. PRESENTATION OF FINDINGS

This research focuses on providing insights into the human experience, challenges, and perceptions surrounding the adoption of digital technology in the onboarding process. The focal point of this chapter revolves around the presentation of empirical findings derived from interviews.

4.1 Introduction

This section has been categorised by the interview guide to ensure comprehensive coverage of all aspects. The interview structure comprised four (4) distinct areas, each of which will be elaborated upon below. The qualitative research findings are based on the research questions. Quotations, where present, are primarily drawn from the interview data, summarising the emerging themes and insights from participants, or gleaned from published sources. The commencement of this chapter involves providing background information, detailing the demographic profiles of the participants, followed by the presentation of findings, and ultimately, the conclusion.

4.2 Themes and findings

The research findings underwent a systematic process involving coding, grouping into themes, and categorisation. Thematic analysis, as detailed in the referenced methodology by Bryman (2012), was employed to identify these codes, themes, and categories. The ensuing themes extracted from the research encompass participants' perception of digital onboarding, its effectiveness and adoption, as well as the perception and ease of understanding of digital onboarding. Additionally, the study delved into the challenges and concerns faced by blue-collar workers during the onboarding process. These themes were distilled from the rich insights shared by the participants.

The subsequent section of this study delves into the results related to each research question. Table 6 below provides a concise overview of the themes corresponding to each proposition aligned to the research question:

Table 6: Research themes

| Proposition | Themes |
|---|---|
| <p>Proposition 1: Exploring the impact digital onboarding has on the human experience of blue-collar workers within the EEMR organisation in South Africa</p> | <p>Most participants expressed a positive view of digital onboarding. Key sentiments include:</p> <ul style="list-style-type: none"> • Cost savings • Time efficiency • Improved processes • Self-paced learning • Compliance focused |
| <p>Proposition 2: Understanding the influence of digital onboarding on blue-collar workers within the EEMR organisation in South Africa</p> | <p>Perceptions vary regarding the effects of digital onboarding, some expressing:</p> <ul style="list-style-type: none"> • Generational gaps • Self-efficacy |
| <p>Proposition 3: Evaluate the current digital onboarding processes in place and their acceptance amongst blue-collar workers within the EEMR organisation in South Africa?</p> | <p>The ease of understanding the digital onboarding system varied among participants, key theme:</p> <ul style="list-style-type: none"> • Digital literacy |
| <p>Proposition 4: What are the potential barriers to successful onboarding amongst blue-collar workers within the EEMR organisation in South Africa?</p> | <p>Challenges include:</p> <ul style="list-style-type: none"> • New blue-collar workers are expected to be productive much sooner after joining, with not enough hours in a day to complete onboarding training. • Job security due to technology advancements. |

4.3 Results pertaining to RQ 1: The impact of digital onboarding on the human experience of blue-collar workers within the EEMR organisation in South Africa

Key sentiments were shared by all participants about the role of digital onboarding, emphasising its numerous benefits such as cost savings, time efficiency, reduced paper usage through digitisation, streamlined processes, the convenience of online learning, and enhanced access to information. However, participants also highlighted concerns regarding the inconsistency of the digital onboarding process, with some experiencing a hybrid solution combining face-to-face and online learning due to constraints such as limited access to tools like tablets or laptops.

One participant, expressing the organisation's commitment to sustainability, remarked, "*Sustainability is one of our core values as an organisation, and getting rid of paper helps our environment*" (P14).

However, concerns were raised regarding potential disadvantages associated with digital onboarding, including time constraints stemming from productivity pressures, individuals' diverse backgrounds and exposure to digital platforms, as well as issues of accessibility.

As articulated by participant P14, "*There is not enough time to complete onboarding during the day, and it takes much longer to complete as it is not user-friendly.*" Additionally, apprehensions were voiced regarding the full digitisation of onboarding processes, with concerns that it may leave less digitally savvy blue-collar workers behind.

Participant P15 noted, "*Having a fully digital onboarding might have some disadvantages for some blue-collar workers based on their background and digital literacy*" (P15).

Moreover, participant P12 highlighted disparities in digital proficiency across generations, emphasising that while younger workers may adapt more easily to digital platforms, older artisans often struggle and require additional training. The scarcity of devices and gadgets in the workshop and field settings further exacerbates this issue, with many workers forced to share computers or rely on limited access to personal devices.

“The younger generation will find it easier, however the older artisans struggle and need training, devices and gadgets are limited in the workshop and out on the field and many have to use shared computers, some avoid sharing their devices” (P12).

Participants collectively characterize current digital onboarding practices as hybrid, incorporating both online and face-to-face interactions. However, the sequential introduction of e-learning modules after traditional manual onboarding methods, primarily due to resource constraints, is perceived as a drawback, depriving participants of a cohesive and comprehensive digital onboarding experience.

4.4 Results pertaining to RQ 2: Influence of digital onboarding on blue-collar workers within the EEMR organisation in South Africa

Most participants believed that individuals at different organisational levels could effectively use digital onboarding. Training and access to necessary tools were highlighted as essential factors for successful adoption.

Some concerns raised about potential generational gaps affecting the adoption rates, with younger blue-collar workers adapting more easily, and concerns about job security due to all the current technology advances.

“They feel overwhelmed and don’t know how to log in and work on the system, they ask others for help” (P5).

Other views by P13 and P4 included *“some of us feel discouraged when having to navigate on the system and would avoid using technology altogether opting for manual processes instead, some might be seen as being difficult due to avoiding the need to complete the digital onboarding training” (P13).*

“Office workers are more comfortable using online platforms, mechanics are not often exposed due to digital literacy and because of the type of work we do” (P4).

Approximately half of the participants feel familiar with digital technologies, while the other half expresses feeling overwhelmed by all the requirements, in turn affecting their self-efficacy and the need for help and additional training during the process.

4.5 Results pertaining to RQ 3: Evaluate the current digital onboarding process in place and its acceptance amongst blue-collar workers within the EEMR organisation in South Africa.

The comprehensibility of the digital onboarding system varied among participants, with many expressing moderate ease in its use. However, common challenges emerged, including the system's complexity in navigation, the perceived need for additional training, and issues related to digital literacy.

Younger blue-collar workers generally exhibited greater adaptability to the system, while older counterparts, grappling with digital literacy challenges, required more extensive training and support.

Participant P8 aptly summarised this sentiment by stating, *“I am a slow learner, show me step-by-step, in bite sized pieces” (P8).* Similarly, Participant P10 emphasised the importance of levelling up digital literacy across all blue-collar workers, recognising that not all individuals possess the same proficiency level.

“Not all blue-collar workers are at the same proficiency level, so bringing everyone up to speed and to the same digital literacy level will help” (P10).

To address these challenges, participants proposed practical solutions such as simplifying business language, incorporating visual aids, and providing step-by-step instructions. As Participant P1 highlighted, regular feedback sessions from line managers could serve as valuable checkpoints to gauge digital onboarding progress and identify areas for improvement.

“We need to get reviews and feedback on digital onboarding progress from the line managers regularly” (P1).

Moreover, there was a consensus among participants regarding the need for streamlining the digital onboarding process. Participant P11 succinctly articulated this need for coherence by advocating for a centralized application or system for onboarding, supplemented with notifications. This unified approach aims to mitigate the confusion caused by the proliferation of standalone systems, streamlining the onboarding experience for all involved parties.

“There must be one central application or system to use for digital onboarding with notifications, there are too many standalones to use for onboarding” (P11).

4.6 Results pertaining to RQ 4: Potential barriers to successful Digital Onboarding amongst blue-collar workers within the EEMR organisation in South Africa

Challenges and concerns regarding digital onboarding within the organisation revolved around several key issues, including network connectivity issues, limited access to devices, time constraints hindering completion of training within working hours, and apprehensions surrounding job security amidst technological advancements and privacy concerns. While some participants embraced technological changes, others harboured reservations and anxieties.

Participant P16 succinctly captured a positive outlook, emphasising, *“The robot is not here to take my job, the robot is here to actually help me” (P16)*, meanwhile Participant P6 advocated for improved communication and employee engagement in technological transitions, suggesting that the organisation should provide regular updates on new technology and solicit employee feedback to enhance adoption and usability.

“The organisation should communicate more often when new technology is made available and should also provide employees an opportunity to share inputs and suggestions to improve adoption and ease of use” (P6).

A significant finding was the prevalent apprehension about job security among blue-collar workers, with fears of evolving job roles due to digital advancements emerging as a prominent theme. Participant P7 highlighted the lack of communication and resources, lamenting, *“I had no tablet or Wi-Fi, no clear communication was shared on the process to follow for digital onboarding” (P7).*

Similarly, Participant P9 expressed frustration over the absence of training and devices, noting the challenges of learning amidst the demands of a busy workshop.

“There was no training, no tablet to access information in the workplace, the workshop is busy and there is no time to learn during working hours” (P9).

Recommendations put forward by participants include implementing mentorship programs (buddy system), establishing support groups, launching awareness campaigns to underscore the benefits of technology adoption, providing ample training opportunities, ensuring equitable device allocation, and addressing concerns related to job security through clear policies and communication channels. These initiatives aim to alleviate anxieties, foster a supportive environment for technological integration, and empower blue-collar workers to embrace and utilise digital tools effectively in their roles.

4.7 Summary of the findings

A predominant finding is the positive perception of digital onboarding among blue-collar workers. The participants generally acknowledged the potential benefits, including cost savings, time efficiency, and improved accessibility to information. This aligns with the research questions and proposition exploring the role of digital onboarding in the workplace.

The positive reception suggests a willingness among blue-collar workers to embrace digital technologies in their onboarding processes. This is crucial for organisations aiming to enhance efficiency and streamline onboarding procedures.

The study identified generational differences in the adoption of digital onboarding. Younger blue-collar workers demonstrated greater comfort and familiarity with digital onboarding platforms, while some older blue-collar workers expressed challenges related to digital literacy.

This finding underscores the importance of considering generational nuances in the design and implementation of digital onboarding strategies. Tailored training programmes and user-friendly interfaces may be essential to bridge the digital literacy gap.

Concerns about job security are notable, this finding suggests that, alongside the benefits perceived by workers, there is a need for clear communication about the strategic objectives behind digital onboarding. Addressing job security concerns is crucial for fostering a positive and supportive transition.

Furthermore, participants exhibited a diverse range of experiences in understanding the digital onboarding system. While some found it straightforward, others faced challenges, emphasising the need for user-friendly designs.

To enhance overall adoption, it is essential to create a digital onboarding system that accommodates different levels of digital literacy. This includes providing step-by-step instructions, visual aids and considering language and complexity.

The importance of training and support mechanisms merged as a consistent theme. Participants stressed the need for upfront training, access to tools (computers/tablets). And ongoing support to navigate the digital onboarding process.

The sampled organisation should prioritise comprehensive training programs and ensure that the necessary tools are readily available. Ongoing support, such as mentorship/buddy system or user guides, is crucial for sustained adoption.

These findings provide valuable insights for strengthening the research proposal on digital onboarding within an Earthmoving Equipment Maintenance Organisation in South Africa from a blue-collar worker perspective.

CHAPTER 5. ANALYSIS AND DISCUSSION OF THE RESEARCH FINDINGS

In this chapter, an overview of whether the research questions formulated in Chapter 1 were answered, is provided. Further included in this chapter is an establishment of whether the research objectives of the study were met. The information that was collected, both from the literature review and results of the study, were summarised to determine the findings.

5.1 Introduction

In Chapter 4, the empirical findings of the research were shared on digital onboarding within an Earthmoving Equipment Maintenance Organisation in South Africa from a blue-collar worker perspective. Key findings from the interviews included:

Participants generally perceived digital onboarding positively, citing that it is more compliance-driven, benefits such as cost and time savings, improved accessibility to information, and enhanced user experience. However, concerns were raised regarding digital literacy and access to technology, particularly among older workers.

While digital onboarding was seen as effective in streamlining processes and providing access to information, challenges such as network issues, lack of devices, and information overload were identified. Participants also expressed concerns about data privacy and job security.

Participants had varying levels of comfort and familiarity with digital technologies, with some finding the onboarding process straightforward while others struggled with navigation and comprehension.

Barriers to digital onboarding included limited access to devices and training, network connectivity issues, and fear of technology-induced job role changes. Concerns about data privacy and device monitoring were also prevalent.

These key findings provide insights into the perceptions, effectiveness, challenges, and concerns surrounding digital onboarding among blue-collar workers in the EEMR industry. They established a foundation for further exploration into the implications and importance of these discoveries in Chapter 5.

5.2 The impact digital onboarding has on the human experience amongst blue-collar workers within the EEMR organisation in South Africa

The positive perception of digital onboarding among blue-collar workers resonates with broader trends identified in current literature. Research conducted by Sani and Adisa (2022) as well as Lee and Mohamed (2023) illustrates that employees across various industries acknowledge the potential benefits of digital onboarding, recognising its capacity to enhance efficiency and accessibility in the onboarding process.

Bauer (2010) outlines the digital onboarding process into four distinct components, termed the Four C's: Compliance, Clarification, Culture, and Connection. Each of these components operates across three levels, ranging from passive to high potential to proactive onboarding. However, participants in the study indicated that the digital onboarding process within the sampled organisation primarily compliance-driven, representing a passive approach. This suggests that while compliance requirements are met, aspects such as role clarification, organisational culture, and social connection are not adequately addressed.

Moreover, Bauer (2010) emphasises the significance of a well-executed onboarding process in fostering long-term relationships between employees and

the organisation, suggesting that employees typically have approximately ninety (90) days to establish themselves in a new role. Ziden and Joo (2020) further underscore the need for a customised digital onboarding experience that maximizes engagement, impact, and effectiveness, rather than adopting a one-size-fits-all approach.

However, despite the potential benefits, some participants in the study expressed struggles with anxiety, frustration, empowerment, and confidence due to constraints related to digital literacy. Sani and Adisa (2022) highlight the negative impacts of these challenges, noting that employees who feel isolated during the socialization process may encounter issues such as role ambiguity and trust deficits within the workplace. Lee and Mohamed (2023) suggest that establishing regular feedback mechanisms, providing support, and fostering an environment conducive to self-esteem development can mitigate these negative effects.

Additionally, the digital onboarding process appears inconsistent, with some participants experiencing a hybrid approach, while others encounter either fully digital or manual onboarding processes due to constraints such as limited access to laptops or other tools of the trade. This inconsistency is perceived as a disadvantage by participants, as it deprives them of a cohesive and inclusive digital onboarding experience, furthermore, underlines the need for greater standardisation and equity in the digital onboarding experience across the organisation.

5.3 Influence of digital onboarding on blue-collar workers with in the EEMR organisation in South Africa

The observation of generational disparities in the adoption of digital onboarding within the EEMR organisation in South Africa resonates with findings from Bauer (2010) and other related literature. It is widely acknowledged that the digital

literacy level among blue-collar workers can be influenced by various factors including age, educational background, and prior exposure to technology.

Kapp and Defelice (2019) emphasise the pivotal role of digital literacy in the success of digital onboarding processes. The varying levels of digital literacy among blue-collar workers can significantly impact their ability to effectively engage with digital onboarding platforms.

Moreover, Reilly (2016) underlines the importance of ensuring accessibility and user-friendliness of onboarding technology to facilitate a meaningful experience for blue-collar workers. Beyond merely onboarding, Reilly (2016) suggests that digital inclusion efforts should encompass broader applications of technology to support teaching and learning within the organisation.

Meraqui (2022) argues that organisations must prioritise upskilling initiatives to transition towards a technology-driven workforce successfully. Identifying skills gaps within the blue-collar workforce is imperative for determining the specific competencies required for a smooth transition.

Stone and Henry (2003) highlight the crucial role of self-efficacy, particularly in the context of technology adoption. It becomes essential to provide adequate support and feedback, particularly when technology impacts users' ability to comprehend and execute tasks essential to the onboarding process.

Furthermore, Bauer (2010) asserts that employees' levels of self-efficacy significantly influence organisational outcomes. Higher levels of self-efficacy translate into increased confidence, improved job performance, and enhanced contributions to organisational success.

By acknowledging the influence of factors such as digital literacy, accessibility, self-efficacy, and upskilling initiatives, organisations can navigate the transition towards a technology-driven workforce more effectively. Addressing these factors not only improves the onboarding experience for blue-collar workers but also

enhances the organisation's overall success and competitiveness in the digital era.

Therefore, adopting a holistic approach that considers technological, organisational, and individual factors is essential for optimising the benefits of digital onboarding and ensuring sustained growth and prosperity for the organisation.

5.4 Evaluate the current digital onboarding process in place and its acceptance amongst blue-collar workers with the EEMR organisation in South Africa

The significance of training and access to tools for effective digital onboarding adoption is underscored by findings from Gerlitz (2020). Training programs and support structures emerge as critical factors influencing the success of digital integration efforts.

Gerlitz and Schafer's (2020) research reveals that effectively integrating technology into educational environments empowers blue-collar workers to access online resources, participate in training workshops, and develop their competencies.

Building upon this, Meraqui (2022) emphasises the necessity for organisations to prioritise upskilling initiatives to transition to a technology-driven workforce successfully. Mapping skill gaps within the blue-collar workforce is pivotal in identifying specific competencies needed for seamless transitions. This serves as the groundwork for developing comprehensive development programs aimed at addressing identified skill gaps and mitigating their effects.

Meraqui (2022) further stresses the importance of recognising the unique skills, educational backgrounds, and learning styles of each employee in designing effective upskilling programs. Involving leaders and managers in training initiatives allows for a tailored approach to address specific challenges and

strengths within the workforce. Peer-to-peer learning, exemplified by the buddy shadowing approach, fosters an agile culture, and encourages knowledge sharing. Additionally, expressing gratitude and providing recognition during the upskilling process ensures that no employee is left behind.

Aster (2021) elaborates that implementing structured training programs for blue-collar workers not only broadens their skill sets but also motivates them to be more productive while enhancing their analytical thinking and problem-solving capabilities.

Effective digital onboarding necessitates a holistic approach that addresses not only the technical aspects but also the human experience, encompassing issues of inclusion, cultural fit, and socialisation.

The diverse understanding of the digital onboarding system among participants introduces a nuanced perspective. While literature often assumes a uniform experience, this study emphasises the need for tailored approaches to accommodate varying levels of digital literacy.

The extent of digital literacy challenges faced by older workers, as illuminated in this study, may vary across industries. This nuanced finding adds depth to existing literature, which often discusses digital literacy in more generalised terms.

The technology dimension within the TOE framework conceptualised by Fleischer and Tomatzky (1990) delve into the assessment of the digital onboarding platform's usability, compatibility, and complexity about the needs and preferences of blue-collar workers. Understanding these aspects is crucial for ensuring that the digital onboarding system effectively meets the workforce's requirements.

The organisational dimension by Fleischer (1990) scrutinises the organisational culture, structure, and leadership support to ascertain their alignment with digital

onboarding initiatives. This dimension is pivotal in determining the organisational readiness and receptivity towards integrating digital onboarding practices.

Finally, the environmental dimension by Fleischer and Tomatzky (1990) considers external factors such as industry trends, regulatory requirements, and market competition. These factors can significantly influence the adoption and effectiveness of the digital onboarding platform and necessitate proactive adaptation strategies by the organisation.

It is imperative for the EEMR organisation to remain proactive in staying abreast of emerging technologies and best practices in digital onboarding. This proactive stance ensures that the organisation remains competitive and adaptable in an environment characterized by rapid technological advancements and evolving industry standards. By continuously monitoring and integrating innovative digital onboarding solutions, the organisation can enhance its efficiency, productivity, and overall competitiveness.

A notable discovery in this study is the prevalence of concerns regarding job security among blue-collar workers. While broader anxieties about technology replacing jobs have been acknowledged in literature, the specific apprehensions within this industry warrant further exploration.

This study contributes to the existing body of knowledge by offering industry-specific insights into digital onboarding among blue-collar workers. The identification of job security concerns and the nuanced exploration of digital literacy challenges provide valuable additions to the literature. Furthermore, the study highlights the importance of considering the unique characteristics of different industries and demographics when implementing digital onboarding initiatives.

The literature review reveals limited coverage of job security concerns, with more emphasis on platforms, investments, and onboarding processes and practices.

Vernon (2012) argues that neglecting to invest in a well-developed onboarding program can have far-reaching consequences beyond the mere loss and replacement of new employees. Failing to effectively engage employees from day one, overlooking the importance of cultural fit, neglecting to align onboarding with desired skills, and failing to provide feedback on performance during the crucial habit-forming stage can result in significant costs. It is essential to establish behaviours that lay the groundwork for long-term success in the workplace.

Snell (2006) further suggests that the key to successful onboarding lies in technology platforms offering configurable workflows and seamless integration with an organisation's talent management system. Additionally, finding the right balance between organisational consistency and flexibility to address department-level needs is crucial.

Inconsistent onboarding practices can lead to confusion and dissatisfaction among new employees. Therefore, organisations should establish standardised onboarding processes to ensure that all new hires receive a consistent and comprehensive experience. Moreover, generic onboarding programs may not address the specific needs and responsibilities of different roles within the organisation. Role-specific onboarding that tailors the training and support to the individual's position and competence can enhance their ability to succeed in their new role.

Lack of user-friendly and integrated digital onboarding systems may pose challenges for organisations in delivering a seamless onboarding experience. Legacy systems or fragmented software solutions can result in inefficiencies and frustrations for new employees.

Brooks and Brooks (1993) argue for the implementation of constructivist approaches in educational settings. They highlight the limitations of traditional, teacher-centred instruction and advocate for a shift towards constructivist practices that promote active student engagement, collaboration, and meaning-making. Jonassen and Murphy (1999) discuss the key principles and

characteristics of constructivism and explores how instructional designers can create learning experiences that align with constructivist principles. Jonassen emphasises the importance of authentic contexts, collaborative learning, and the integration of technology to support active engagement and knowledge construction among learners.

Constructivism theory offers valuable insights into the process of learning and knowledge construction. By emphasising the active role of learners, the integration of prior knowledge, social interaction, and authentic learning experiences, constructivism provides a framework for designing learner-centred and engaging educational practices. Its implications for teaching and learning promote critical thinking, collaboration, and the development of lifelong learning skills.

5.5 Conclusion

In conclusion, this comparative analysis draws attention to both consistencies and distinctive findings, emphasising the evolving nature of digital integration in onboarding processes and the significance of context-specific considerations.

CHAPTER 6. CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

This chapter presents the conclusions based on the research questions introduced in Chapter 1. It includes some preliminary recommendations for future research. The study's primary objective was to evaluate the blue-collar workers perspective on digital onboarding within an Earthmoving Equipment Maintenance Organisation in South Africa.

6.2 Conclusions regarding RQ 1 – The impact Digital Onboarding has on the human experience amongst blue-collar workers within the EEMR organisation in South Africa

The research on the impact of digital onboarding on the human experience of blue-collar workers within an Earthmoving Equipment Maintenance and Repair organisations has shed light on several critical insights. While existing literature primarily focuses on remote workforces, this study identified correlating trends around inclusivity and socialisation elements in digital onboarding practices. However, it also revealed significant gaps and challenges specific to blue-collar workers.

Firstly, the study found that current digital onboarding processes are inconsistently applied to blue-collar workers, leading to compromised onboarding experiences and increased risks, as onboarding is not seen as mandatory. This finding contrasts with the assertion by Kapp and Defelice (2019) that onboarding is essential for every new employee, especially blue-collar workers prone to workplace accidents.

Moreover, the study highlighted the presence of standalone onboarding systems that add confusion and hinder user experience. The absence of user-friendly

interfaces and adequate support exacerbates the situation, indicating a deviation from Barloworld's (2016) purported onboarding model.

Additionally, digital literacy constraints among blue-collar workers, coupled with the lack of technical support and buddy systems during orientation, negatively impact morale and self-efficacy, aligning with Jorgensen and Swindall's (2018) emphasis on the challenges posed by low digital literacy levels during onboarding.

Despite these challenges, participants acknowledged the potential benefits of digital onboarding, including time and cost savings, efficiencies, transparency, and ease of access to information and learning opportunities. However, concerns were raised regarding the lack of allocated time during working hours for learning activities, adding pressure to comply.

In conclusion, while digital onboarding holds promise for blue-collar workers, addressing challenges such as inconsistent application, standalone systems, digital literacy constraints, and lack of support is paramount. Tailored approaches that prioritise user-friendly interfaces, adequate support, and consideration of blue-collar workers' distinct needs are essential for successful digital onboarding initiatives.

This study contributes to the existing literature by highlighting these unique challenges and emphasising the importance of addressing them in organisational practices. Moving forward, organisations must prioritise the development of inclusive and supportive digital onboarding processes to foster employee engagement, create a culture of learning, and organisational success.

6.3 Conclusions regarding RQ 2 – Influence of digital onboarding on blue-collar workers within the EEMR organisation in South Africa

The challenges identified by blue-collar workers, such as digital literacy gaps, self-efficacy, and resistance to change, resonate with existing literature on digital onboarding practices, indicating the universality of these barriers across various industries and contexts, as articulated by Kapp and Defelice (2019).

This enhances the importance of recognising and addressing these challenges in digital transformation initiatives. And the need for collaborative efforts aimed at bridging skills gaps and enhancing adoption rates among blue-collar workers. Tailored onboarding experiences, as advocated by Bauer (2010), have the potential to facilitate learning and improve job satisfaction, thereby contributing to organisational success.

However, certain findings, such as the emphasis on job security concerns and the specific challenges related to digital literacy, including difficulties in navigating digital platforms and understanding complex instructions, resonate with existing literature. These findings emphasise the critical role of digital literacy in effective onboarding and highlight the need for targeted interventions to address this barrier.

By acknowledging the influence of factors such as digital literacy, accessibility, self-efficacy, and upskilling initiatives, organisations can navigate the transition to a technology-driven workforce more effectively. Addressing these factors not only enhances the onboarding experience for blue-collar workers but also strengthens the organisation's overall success and competitiveness in the digital era. As organisations continue to evolve in response to technological advancements, prioritising inclusive and supportive digital onboarding practices becomes increasingly essential for fostering employee engagement, satisfaction, and organisational resilience.

6.4 Conclusions regarding RQ 3 – Evaluate the current digital onboarding process in place and its acceptance amongst blue-collar-workers within the EEMR organisation in South Africa

Some participants demonstrated resistance to digital onboarding, citing concerns about potential job role changes, job security, and discomfort with technology-driven processes. These findings align with existing literature highlighting the influence of organisational culture and change management on employees' attitudes toward digital transformation initiatives.

To maximize the benefits of digital onboarding efforts, effective communication of its advantages is crucial. Additionally, digital tools should be user-friendly, and ongoing training opportunities should be readily available. Enhancing ease of use can be achieved through clear visual instructions, immersive technology alternatives, and targeted programs designed to address specific skill levels and needs. For instance, Stoiber et al. (2019) propose the concept of visualized onboarding to aid in understanding complex visualizations, while Skiles and Shafer (2018) suggest the use of virtual reality (VR) applications for socialisation aspects of onboarding and augmented reality (AR) for training and team assimilation.

Privacy and data security concerns emerged among blue-collar workers, emphasising the importance of addressing such anxieties to foster trust and acceptance of digital technologies. The comprehensibility of the digital onboarding system varied among participants, with common challenges including system navigation complexity, perceived need for additional training, and issues related to digital literacy.

Younger blue-collar workers generally exhibited greater adaptability to the system compared to their older counterparts, who often faced challenges related to digital literacy and required more extensive training and support. Participants highlighted the need for streamlining the digital onboarding process, advocating

for a centralized application or system supplemented with notifications to mitigate confusion caused by the proliferation of standalone systems.

6.5 Conclusions regarding RQ 4 – Potential barriers to successful digital onboarding amongst blue-collar workers within the EEMR organisation in South Africa

Challenges and concerns surrounding digital onboarding within the organisation are multifaceted, encompassing issues such as network connectivity problems, limited device access, data and time constraints impeding training completion during working hours, and fears regarding job security amidst technological advancements and privacy considerations. While some participants embraced technological changes, others harboured reservations and anxieties.

Organisations must incorporate feedback mechanisms to gauge user experiences, offering personalised support and fostering a culture of continuous improvement. As highlighted by Snell (2006), inconsistent and unsatisfactory onboarding practices persist, with a third of organisations lacking formal processes to monitor and coordinate onboarding activities effectively.

A significant finding was the prevalent anxiety about job security among blue-collar workers, with concerns about evolving job roles due to digital advancements emerging as a prominent theme. Participants recommended various initiatives, including mentorship programs (buddy system), support groups, awareness campaigns highlighting the benefits of technology adoption, extensive training opportunities, equitable device allocation, and clear communication channels to address job security concerns. These measures aim to alleviate anxieties, cultivate a supportive environment for technological integration, and empower blue-collar workers to effectively utilise digital tools in their roles.

Vernon (2012) underscored the repercussions of neglecting well-developed onboarding programs, emphasising that the costs extend beyond mere loss and replacement of new employees.

In conclusion, this comparative analysis reveals both consistencies and distinctive findings, highlighting the evolving nature of digital integration in onboarding processes and the importance of context-specific considerations.

6.6 Limitations of the study

While this research provides valuable insights into the influence of digital onboarding on blue-collar workers within Earthmoving Equipment Maintenance and Repair organisations in South Africa, it is essential to acknowledge several limitations that may impact the generalisability and interpretation of the findings:

The study focused on a specific region, potentially limiting the generalisability of findings to other locations. Variations in organisational culture, technological infrastructure, and socio-economic factors across different regions may influence the applicability of the study's findings. Future research should consider multi-site studies for a more comprehensive understanding.

The research was conducted within a specific timeframe, and the technology or organisational practices may evolve. As digital technologies and organisational strategies progress, the relevance of findings may diminish over time. Regular updates and follow-up studies are recommended to capture changing dynamics in digital onboarding.

Participants' responses were based on self-reporting, introducing the possibility of response bias. Participants may provide socially desirable responses or may not fully disclose their true sentiments. Some participants had to be probed and provided examples in instances where an interview question was not fully understood. Future research could explore additional methodologies, such as observation or to complement self-reported data.

The study specifically focused on the Earthmoving Equipment Maintenance and Repair industry. Findings may not be directly transferable to other industries with distinct characteristics. Researchers should consider industry-specific nuances in future investigations.

By recognising these limitations, the study aims to provide a transparent foundation for interpreting the findings. Future research endeavours can build upon these insights, addressing these limitations to further advance the understanding of digital onboarding in diverse organisational contexts.

6.7 Recommendations

Technological literacy among blue-collar workers is increasingly important in today's digitalized workplace, particularly with the advent of digital onboarding processes. Workers should be encouraged to stay updated on new technologies and tools relevant to their job roles through ongoing training and professional development opportunities. Therefore, the following initiatives are recommended to the various decision makers to close the literacy gaps:

Ensuring accessibility to digital tools: ensure that all employees have access to the necessary tools for digital onboarding. Address infrastructure gaps and provide the required hardware to create a level playing field for all workers.

Identifying skill gaps: organisations should conduct assessments to identify existing skill gaps among blue-collar workers concerning technological literacy. This may involve surveys, interviews, or skills assessments to gauge workers' proficiency levels. By identifying skill gaps, organisations can tailor training programs to address specific areas of need, ensuring that workers have the requisite skills to succeed in a digitalised work environment. Skills programs should cover basic digital skills such as using email, navigating web browsers, and operating common software applications. These foundational skills are essential for engaging with digital onboarding platforms and accessing online resources.

Investing in digital literacy programs: implementing ongoing digital literacy programs can bridge the gap and empower workers to navigate digital onboarding effectively. This investment in training will contribute to a more digitally competent workforce. Technological literacy ensures that workers can navigate digital interfaces, access online resources, and leverage technology to streamline tasks and processes.

Aligning digital onboarding with organisational goals: align digital onboarding with the broader organisational goals and communicate these benefits effectively. This alignment reinforces the value of digital onboarding, creating a positive narrative around its implementation.

Addressing job security concerns: concerns about job security emerged as a significant theme. Clear communication about the organisational objectives behind digital onboarding is crucial. Assure employees that these advancements are designed to enhance efficiency and job roles, not replace them. Establishing transparent channels for communication can alleviate fears.

User-centric design for ease of understanding: participants exhibited diverse experiences in understanding digital onboarding. Designing user-friendly interfaces with step-by-step instructions, visual aids, and language accessibility is critical. Conduct usability testing to ensure that the digital onboarding system is intuitive for users with varying levels of digital literacy. Technologically literate workers can leverage digital tools to automate routine tasks, analyse data, and collaborate with colleagues more efficiently. By harnessing the power of technology, organisations can optimise workflow processes, minimize errors, and improve overall productivity.

Communication dynamics: digital onboarding platforms can facilitate more efficient and transparent communication between employees and management. Through centralized communication channels, such as online portals or messaging systems, information sharing becomes streamlined, enabling timely updates on company policies, procedures, and organisational changes.

Cross-functional collaboration: digital onboarding may promote collaboration among diverse teams and departments by providing a platform for sharing knowledge and resources. By breaking down communication silos and fostering cross-functional interactions, employees can gain a more comprehensive understanding of their roles within the organisation and contribute to collaborative problem-solving efforts.

Employee engagement: digital onboarding tools offer opportunities for interactive and personalised learning experiences, engaging employees in the onboarding process. Through multimedia content, simulations, and gamified activities, employees can acquire new skills and knowledge in an engaging and immersive manner, enhancing their overall engagement and motivation.

Feedback and recognition: digital platforms can facilitate ongoing feedback and recognition mechanisms, allowing employees to provide input on their onboarding experiences and receive timely feedback from supervisors. By fostering a culture of feedback and recognition, organisations can boost employee morale and satisfaction, ultimately contributing to higher levels of engagement and retention.

Resistance to change: resistance to change is a common challenge associated with the implementation of digital onboarding initiatives. Organisations must proactively address resistance by implementing robust change management strategies, including stakeholder engagement, communication campaigns, and training programs. By involving employees in the decision-making process and addressing their concerns transparently, organisations can mitigate resistance and foster a more positive attitude toward digital transformation.

Cultural alignment: Successful implementation of digital onboarding requires alignment with the organisation's cultural values and norms. Organisations must ensure that digital initiatives resonate with the existing culture and practices, considering factors such as organisational hierarchy, communication styles, and decision-making processes. By aligning digital onboarding efforts with the

organisation's cultural context, organisations can facilitate smoother integration and acceptance among employees.

Alignment with industry trends: many industries, including Earthmoving Equipment Maintenance and Repair, are embracing digitalization to stay competitive and meet evolving customer demands. Technological literacy enables workers to adapt to industry trends such as digital onboarding, IoT-enabled equipment, and predictive maintenance, positioning them for success in the digital age.

Tailoring digital onboarding for different generations: generational differences impact the adoption of digital onboarding. Organisations should tailor digital onboarding strategies to accommodate different age groups. This may involve creating distinct pathways or providing additional support for older workers less familiar with digital technologies.

Comprehensive training and support structures: Training and support were highlighted as crucial for successful adoption. Organisations should invest in comprehensive training programs for all employees undergoing digital onboarding that include, the familiarisation of the specific digital onboarding platform used by the organisation. Training should cover how to log in, access training modules, complete assessments, and seek assistance when needed. Additionally, provide ongoing support mechanisms, such as mentorship programs or a buddy system, user guides, to assist workers in navigating the process seamlessly.

Integration of feedback mechanisms: establish feedback mechanisms to continuously improve the digital onboarding process. Regularly solicit input from users, identify pain points, and make iterative improvements. This not only enhances the user experience but also fosters a culture of continuous improvement.

Cybersecurity awareness: given the importance of data security in digital environments, training on cybersecurity best practices is essential. Workers

should be educated on how to identify and report security threats, safeguard sensitive information, and adhere to organisational security policies.

Continuous learning: technology evolves rapidly, so training programs should emphasise the importance of continuous learning and skill development.

In summary, technological literacy among blue-collar workers is vital for adapting to the demands of the digital workplace and embracing initiatives such as digital onboarding. By providing comprehensive training programs that address basic digital skills, platform familiarisation, cybersecurity awareness, and continuous learning, organisations can empower workers to thrive in an increasingly digital world. Identifying and addressing skill gaps ensures that workers are equipped with the necessary competencies to leverage technology effectively and contribute to organisational success.

The recommendations towards the findings of this study offer practical guidance for Earthmoving Equipment Maintenance and Repair organisations in South Africa. By incorporating these insights into decision-making processes, organisations can not only enhance the success of digital onboarding initiatives but also foster a positive and adaptive workplace culture. This, in turn, contributes to the overall efficiency and sustainability of the organisation in the rapidly evolving digital landscape.

The implementation of digital onboarding processes raises several ethical considerations that organisations must carefully navigate. These include:

Organisations must prioritise the protection of personal data collected during the digital onboarding process. This includes ensuring compliance with relevant data protection regulations, such as the General Data Protection Regulation (GDPR) or the Protection of Personal Information Act (POPIA) in South Africa.

Ethical practices dictate that organisations obtain informed consent from employees before collecting and processing their personal data. Transparency

regarding the types of data collected, how it will be used, and who will have access to it is essential to maintain trust and respect for individual privacy rights.

Digital onboarding processes may involve the use of monitoring technologies to track employee progress and performance. While monitoring can provide valuable insights for organisational improvement, it also raises concerns about employee privacy and autonomy.

It is important that organisations must strike a balance between monitoring productivity and respecting employees' rights to privacy and autonomy. Surveillance should be transparent, proportionate, and justified by legitimate business interests. Employees should be informed about the extent and purpose of monitoring activities and provided with mechanisms to address any concerns or grievances.

Digital onboarding processes rely heavily on access to technology and digital literacy skills. However, not all employees may have equal access to technology or the necessary skills to navigate digital platforms effectively therefore, ethical considerations demand that organisations address disparities in access and opportunity to ensure that digital onboarding processes are inclusive and equitable. This may involve providing access to technology resources, offering training and support programs tailored to diverse learning needs, and fostering a culture of inclusion and diversity within the organisation.

Digital onboarding processes must be designed and implemented in a manner that avoids bias and discrimination against certain groups of employees. Algorithms and automated decision-making systems used in digital onboarding may inadvertently perpetuate bias if not carefully calibrated and monitored.

Organisations must proactively identify and mitigate potential sources of bias in digital onboarding processes, such as algorithmic bias in recruitment or performance evaluation. This may involve regular audits of algorithms, diverse representation in decision-making processes, and ongoing training on bias awareness and mitigation for employees involved in digital onboarding.

In conclusion, ethical considerations are paramount in the design and implementation of digital onboarding processes. Organisations must uphold principles of transparency, consent, fairness, and equity to ensure that digital onboarding practices respect the rights and dignity of employees while leveraging technology to enhance organisational effectiveness and efficiency. By integrating ethical considerations into their digital onboarding strategies, organisations can build trust, foster inclusivity, and promote ethical behaviour in the workplace.

6.6 Suggestions for further research

Based on the insights gained from the current study on digital onboarding within an Earthmoving Equipment Maintenance and Repair organisation in South Africa, several avenues for future research can be proposed. These avenues can help deepen our understanding of digital onboarding practices and their impact on organisational dynamics, employee experiences, and overall performance. Here are some suggestions for future research:

Comparative Studies to explore the effectiveness of different digital onboarding strategies and technologies across various industries and organisational contexts. Comparative studies can shed light on best practices, key success factors, and contextual factors that influence the outcomes of digital onboarding initiatives.

Cross-Cultural Studies - Explore cultural differences in attitudes towards digital onboarding and technology adoption among blue-collar workers in different regions or countries. Cross-cultural studies can help identify cultural barriers and facilitators to digital onboarding and inform the development of culturally sensitive strategies.

Apply established technology acceptance models, such as the Technology Acceptance Model (TAM) or the Unified Theory of Acceptance and Use of Technology (UTAUT), to understand the factors influencing blue-collar workers' acceptance and adoption of digital onboarding technologies. Future research can

validate and extend existing models in the context of digital onboarding for blue-collar workers.

Investigate the effectiveness of training and development interventions aimed at enhancing blue-collar workers' technological literacy and digital skills. Research can assess the impact of targeted training programs on employees' confidence, competence, and willingness to engage with digital onboarding processes.

Investigate the ethical and legal implications of digital onboarding, particularly concerning data privacy, surveillance, and equity. Research can examine the ethical dilemmas faced by organisations and employees in balancing the benefits of digital onboarding with ethical considerations and regulatory requirements.

By pursuing these avenues for future research, scholars can contribute to advancing knowledge in the field of digital onboarding and inform evidence-based practices that promote organisational effectiveness and employee well-being in diverse contexts.

In reflecting on the research journey documented in this report, it becomes evident that the exploration of digital onboarding within an Earthmoving Equipment Maintenance and Repair organisation in South Africa from a blue-collar worker perspective has yielded valuable insights and implications.

The study delved into the multifaceted landscape of digital onboarding, aiming to understand its impact, challenges, and opportunities within the context of blue-collar workers. By conducting interviews, analysing data, and comparing findings with existing literature, we gained a comprehensive understanding of the subject matter.

One of the most significant revelations of this research is the critical role of digital literacy and technological proficiency among blue-collar workers. While some participants exhibited adaptability and enthusiasm for digital tools, others faced significant barriers, such as limited access to devices, connectivity issues, and apprehensions about job security. These findings underscore the importance of

tailored approaches to digital onboarding that address the diverse needs and skill levels of blue-collar workers.

Moreover, the study highlighted the importance of organisational culture, communication, and support structures in facilitating successful digital onboarding processes. Recommendations put forward by participants, such as mentorship programs, awareness campaigns, and equitable device allocation, emphasise the significance of creating a supportive environment for technological integration.

Furthermore, the research underscored the need for ongoing evaluation, feedback mechanisms, and continuous improvement in digital onboarding practices. Organisations must remain responsive to the evolving needs and challenges of their workforce, ensuring that onboarding processes remain effective and relevant in an ever-changing digital landscape.

As the research is concluded, it is essential to acknowledge the insights gained from this study that has provided a valuable foundation for future research and organisational initiatives aimed at enhancing digital onboarding practices for blue-collar workers.

In essence, this research contributes to a deeper understanding of the complexities surrounding digital onboarding and its implications for organisational practices and employee experiences. By recognising the challenges, opportunities, and nuances inherent in this process, organisations can strive towards more inclusive, effective, and impactful onboarding experiences for all employees.

Table 7: Consistency table: research questions, propositions, data collection and data analysis

| RQ # | State Research Question? | Proposition | State Proposition | Data collection detail | Data analysis method |
|------|--|-------------|--|---------------------------|----------------------|
| 1 | How does digital onboarding impact the human experience of blue-collar workers within an EEMR organisation in South Africa? | | | | |
| 1.1 | In your opinion do you think digital onboarding has a role to play in the workplace? | 1.1 | Digital onboarding has a significant role to play in the workplace. It streamlines onboarding processes, fosters employee engagement and productivity, and promotes a positive organisational culture. Embracing digital onboarding can lead to more efficient and effective onboarding experiences, better integration of new employees, and ultimately contribute to the success and growth of the organisation. | | Thematic analysis |
| 1.2 | How is digital onboarding currently being utilised in the organisation? | 1.2 | By leveraging digital onboarding, the EEMR organisation can enhance the onboarding experience for blue-collar workers. Provide user-friendly interfaces | Interview guide questions | Thematic analysis |

| RQ # | State Research Question? | Proposition | State Proposition | Data collection detail | Data analysis method |
|------|---|-------------|--|---------------------------|----------------------|
| | | | and offer adequate training and support to ensure a smooth transition to digital processes. Clear communication of safety protocols can contribute to a safer work environment. | | |
| 1.3 | How familiar are blue-collar workers with digital technologies and online platforms before undergoing the onboarding process? | 1.3 | By assessing the familiarity of blue-collar workers with digital technologies and online platforms prior to the onboarding process, organisations can tailor their digital onboarding initiatives, provide targeted training, and support, and bridge the digital skills gap, enhancing their overall onboarding experience. | Interview guide questions | Thematic analysis |
| 2 | What is the influence of digital onboarding on blue-collar workers within the EEMR organisations in South Africa? | | | | |
| 2.1 | Do you think that individuals from different levels within the organisation can | 2.1 | Collaboration in providing accessible training resources, fostering cross-level collaboration, and tailoring the onboarding experience can enhance the learning and integration of blue-collar workers, leading | Interview guide questions | Thematic analysis |

| RQ # | State Research Question? | Proposition | State Proposition | Data collection detail | Data analysis method |
|-------------|--|--------------------|--|-------------------------------|-----------------------------|
| | use digital onboarding effectively? | | to improved job performance, safety awareness, and overall job satisfaction. | | |
| 2.2 | Do you think that digital onboarding has different effects on different levels of employees within the organisation? | 2.2 | Digital onboarding has different effects on different levels of employees within the Digital onboarding may vary based on the specific organisational context, the implementation of digital tools, and the receptiveness of employees at different levels. Factors such as access to technology, digital literacy levels, and individual motivations can influence the outcomes. Therefore, assessing and understanding the specific dynamics within the EEMR organisation is crucial in comprehending the differential effects of digital onboarding on employees at different levels. | Interview guide questions | Thematic analysis |
| 2.3 | How can the digital onboarding process be designed to align with | 2.3 | By conducting a skills assessment, offering personalised learning pathways, incorporating practical demonstrations, | Interview guide questions | Thematic analysis |

| RQ # | State Research Question? | Proposition | State Proposition | Data collection detail | Data analysis method |
|------|--|-------------|--|---------------------------|----------------------|
| | blue-collar workers' prior knowledge and experience? | | and providing ongoing support and feedback. By aligning the digital onboarding process with blue-collar workers' prior knowledge and experience, organisations can enhance their learning outcomes, promote engagement, and facilitate a smoother transition into new roles. | | |
| 3 | Evaluate the current digital onboarding processes in place and their acceptance amongst blue-collar workers within the EEMR organisation within South Africa? | | | | |
| 3.1 | Do you think blue-collar workers will be open to digital onboarding? What are your views on employees that fall within the blue-collar workers category? | 3.1 | Blue-collar workers can be receptive to digital onboarding initiatives when the benefits are effectively communicated, the digital tools are user-friendly, training is provided, and ongoing support is available to address any concerns or challenges they may encounter. | Interview guide questions | Thematic analysis |

| RQ # | State Research Question? | Proposition | State Proposition | Data collection detail | Data analysis method |
|------|--|-------------|--|--|----------------------|
| | | | While it is important to acknowledge that individual blue-collar workers may have varying levels of comfort and familiarity with digital technologies, by effectively communicating the benefits, ensuring user-friendly tools, providing training and support, and addressing individual needs, organisations can increase the openness of blue-collar workers towards digital onboarding initiatives. By emphasising the value and relevance of digital tools in their work context and providing the necessary resources for successful adoption, organisations can encourage their participation and active involvement in the onboarding process. | | |
| 3.2 | How easy is it for blue-collar workers to use the digital onboarding system? | 3.2 | The ease of use for blue-collar workers in utilising the digital onboarding system can be enhanced through intuitive interfaces, user-friendly features, clear instructions, | Interview guide questions 1, 2, 3, 4, 5 | Thematic analysis |

| RQ # | State Research Question? | Proposition | State Proposition | Data collection detail | Data analysis method |
|------|---|-------------|---|--|----------------------|
| | | | and targeted training programs designed specifically for their needs and skill levels. A system that is easy to navigate, understand, and operate improves their overall experience, reduces learning barriers, and increases the efficiency and effectiveness of the onboarding process. | | |
| 4 | What are the potential barriers to successful onboarding amongst blue-collar workers within the EEMR organisation in South Africa? | | | | |
| 4.1 | How can the organisation improve the digital onboarding experience for blue-collar workers based on their lived experiences? | 4.1 | By incorporating input and feedback, conducting user experience research, providing personalised support, and fostering a culture of continuous improvement, organisations can improve the digital onboarding experience for blue-collar workers based on their lived experiences. This approach promotes inclusivity, empathy, and collaboration, resulting in a more effective and engaging onboarding process that caters to the | Interview guide questions 1, 2, 3, 4, 5 | Thematic analysis |

| RQ # | | State Research Question? | Proposition | State Proposition | Data collection detail | Data analysis method |
|------|--|--------------------------|-------------|---|------------------------|----------------------|
| | | | | unique needs and perspectives of blue-collar workers. | | |

Annexure A: Interview schedule

Table 8: Interview schedule

| | |
|-------------------|--|
| Question 1 | How does digital onboarding impact the human experience of blue-collar workers within an EEMR organisation in South Africa? |
| 1.1 | In your opinion do you think digital onboarding has a role to play in the workplace? |
| 1.2 | How is digital onboarding currently being utilised in the organisation? |
| 1.3 | How familiar are blue-collar workers with digital technologies and online platforms before undergoing the onboarding process? |
| Question 2 | What is the influence of digital onboarding on blue-collar workers within the EEMR organisations in South Africa? |
| 2.1 | Do you think that individuals from different levels within the organisation can use digital onboarding effectively? |
| 2.2 | Do you think that digital onboarding has different effects on different levels of employees within the organisation? |
| 2.3 | How can the digital onboarding process be designed to align with blue-collar workers' prior knowledge and experience? |

| | |
|-------------------|---|
| Question 3 | Evaluate the current digital onboarding processes in place and their acceptance amongst blue-collar workers within an EEMR organisation in South Africa? |
| 3.1 | Do you think individuals will be open to digital onboarding? What are your views on employees that fall within the blue-collar workers category? |
| 3.2 | How easy is it for blue-collar workers to understand and use the digital onboarding system? |
| 3.3 | How can the organisation improve the digital onboarding experience for blue-collar workers based on their lived experiences? |
| Question 4 | What are the potential barriers to successful onboarding amongst blue-collar workers within the EEMR organisation in South Africa? |
| 4.1 | What are the challenges and barriers that blue-collar workers face in using digital onboarding? |
| 4.2 | What are the unique concerns or fears that blue-collar workers may have related to digital onboarding, such as job security, data privacy, or job role changes? |
| 4.3 | What recommendations can be shared that will aid blue-collar workers to adopt digital onboarding in the organisation? |

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APPENDIX A

Title: Digital onboarding within an Earthmoving equipment maintenance organisation in South Africa: a blue-collar worker perspective.

Questionnaire / Semi-Structured Interview

This study aims to investigate the influence of digital onboarding on blue-collar workers within an Earthmoving Equipment Maintenance and Repair (EEMR) organisation in South Africa. The research seeks to understand the role digital onboarding has on shaping the human experience of blue-collar workers and identify potential barriers to successful onboarding in the digital era.

The primary objective of this research is to contribute to the existing literature on digital onboarding in the EEMR industries. By gaining insights into the experiences, perceptions, and challenges of blue-collar workers, this study aims to inform organisational leaders and policymakers about the significance of promoting workplace inclusion, enhancing employee performance and satisfaction, and leveraging technology for effective onboarding processes.

This study adopts a qualitative research design to provide an in-depth understanding of the experiences and perspectives of blue-collar workers regarding digital onboarding. Qualitative methods such as semi-structured interviews and questionnaires will be utilised to gather rich and meaningful data that captures the nuances of the participants' experiences.

Your participation in this study is highly valued, and your confidentiality will be strictly protected. All data collected during the research will be securely stored in an access-controlled system, ensuring that no personally identifiable information will be disclosed. The findings of the study will be reported in aggregate form, without any individual participant being identifiable.

| Section 1 | Background information | Response |
|-----------|------------------------------------|----------|
| 1. | What is the date of the interview? | |
| 2. | What is your name and surname? | |
| 3. | What is your role / position? | |
| 4. | What Gender are you? | |
| 5. | What Race are you? | |

| | | |
|------------------|--|-----------------|
| Section 2 | The role digital onboarding has on the human experience of blue-collar workers within the EEMR organisation in South Africa | Response |
| 2.1 | In your opinion do you think digital onboarding has a role to play in the workplace? | |
| 2.2 | How is digital onboarding currently being utilised in the organisation? | |
| 2.3 | How familiar are blue-collar workers with digital technologies and online platforms before undergoing the onboarding process? | |
| Section 3 | The influence of digital onboarding on blue-collar workers within the EEMR organisation in South Africa | Response |
| 3.1 | Do you think that individuals from different levels within the organisation can use digital onboarding effectively? | |
| 3.2 | Do you think that digital onboarding has different effects on different levels of employees within the organisation? | |
| 3.3 | How can the digital onboarding process be designed to align with blue-collar workers' prior knowledge and experience? | |

| | | |
|------------------|---|-----------------|
| Section 4 | Evaluate the current digital onboarding in place and the acceptance for such amongst blue-collar workers within the EEMR organisation in South Africa | Response |
| 4.1 | Do you think individuals will be open to digital onboarding? What are your views on employees that fall within the blue-collar workers category? | |
| 4.2 | How easy is it for blue-collar workers to understand and use the digital onboarding system? | |
| 4.3 | How can the organisation improve the digital onboarding experience for blue-collar workers based on their lived experiences? | |
| Section 5 | Identify barriers to successful onboarding amongst blue-collar workers within the EEMR organisation in South Africa | Response |
| 5.1 | What are the challenges and barriers that blue-collar workers face in using digital onboarding? | |
| 5.2 | What are the unique concerns or fears that blue-collar workers may have related to digital onboarding, such as job security, data privacy, or job role changes? | |

| | | |
|-----|---|--|
| 5.3 | What recommendations can be shared that will aid blue-collar workers to adopt digital onboarding in the organisation? | |
|-----|---|--|

APPENDIX B

CONSENT FORM

Title: Digital onboarding within an Earthmoving equipment maintenance organisation in South Africa: a blue-collar worker perspective.

Name of researcher: Faheema Wannenburg

I _____ agree to participate in this research project, of which the following has been explained to me and I understand what my participation entails:

- The purpose and context of the study has been explained to me and I have an opportunity to seek clarity, should there have been any confusion or doubts and.
- I may withdraw from the study at any time without any consequences.

Please circle the applicable responses below:

| | | |
|---|-----|----|
| I agree that my participation will remain confidential | Yes | No |
| I agree that the researcher may use anonymised quotes in her research report | Yes | No |
| I agree that the interview may be audio recorded and transcribed | Yes | No |
| I agree that the information provided may be used anonymously by other researchers following this study | Yes | No |

| | |
|------------|--|
| Signature: | |
| Full Name: | |
| Date: | |



Sculpting global leaders

APPENDIX C

Dear Participant,

I am a student at the Wits Business school studying towards a Master of Management in the field of Digital Business Studies (MMDB). One of the main components and requirements of the MMDB program us to conduct a comprehensive research report.

The purpose of this study is to examine the influence of digital onboarding on blue-collar workers within an Earthmoving Equipment Maintenance and Repair (EEMR) organisation in South Africa. The research seeks to understand the role digital onboarding has on shaping the human experience of blue-collar workers and identify potential barriers to successful onboarding in the digital era.

The primary objective of this research is to contribute to the existing literature on digital onboarding in the EEMR industries. By gaining insights into the experiences, perceptions, and challenges of blue-collar workers, this study aims to inform organisational leaders and policymakers about the significance of promoting workplace inclusion, enhancing employee performance and satisfaction, and leveraging technology for effective onboarding processes.

This study adopts a qualitative research design to provide an in-depth understanding of the experiences and perspectives of blue-collar workers regarding digital onboarding. Qualitative methods such as semi-structured interviews and questionnaires will be utilised to gather rich and meaningful data that captures the nuances of the participants' experiences.

To conduct this research, I will interview blue-collar workers at the sampled organisations within the EEMR industry.

You have been identified as a candidate and I would appreciate your participation in this study.

The estimated time of the semi-structured interview is 45-60min. All information collected from this study will be confidential, with all data collected being stored in an access-controlled system. Only once your approval is received will an appointment be scheduled at a suitable time.

Prof. Jenika Gobind is the supervisor for this study, and should you have any queries or concerns, you may contact her via jenika.gobind@wits.ac.za or +27 11 717 3761.

Regards,

Faheema Wannenburg

Wits Business School, MMDB 2023 Student