



**TOWARDS DIGITAL TRANSFORMATION OF LEARNING AND DEVELOPMENT
BUSINESS PROCESSES AND SYSTEMS IN THE ETHEKWINI MUNICIPALITY**

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Abstract

The study focuses on the digital transformation and remodelling of business processes and systems in the municipality's employee learning and development unit, given the advancement and evolution of technologies that have contributed to redefining the functioning, style and manner of work. The learning and development unit of eThekweni Municipality was selected as the case study to assess how digital transformation can be carried out by the learning and development unit. Further, to assess how employees perceive and respond to a call to transition to digital platforms.

The study was devoted to exploring how employees interpret digital transformation in the municipality's workforce learning and development context. It extends to establishing employees' perceptions of the state of preparedness and factors influencing the operationalisation of digital transformation. Further to assess the framework and digital initiatives already implemented and resources and capabilities secured and needed to support the transformation of learning and development processes.

The results of the study discovered that the municipality's employees understood digital transformation and its impact on business process remodelling for learning and development. Employees were precise about what needed to change and provided the reasons for learning and development to contemplate transformation. The key strategic change is the necessity for a swift transition towards the use of digital technologies to help the municipality achieve its goal of being a smart and learning city. For instance, being a smart city requires the municipality to advance in technology use and increase value proposition resulting in customer satisfaction. The learning and development being mandated and entrusted with employee development it is critical that it leads transformation and ensures employee IT capabilities needed in the digital era.

The study made the realisation that the L&D unit is still lagging attributed to a lack of leadership to provide direction, no blueprint to guide the transformation process, insufficient resources and capabilities, increased engagement required with employees, customers, and partners as well as assistance to management change.

Declaration

I, Millicent Puleng Ngubane (Student No. 2492934), confirm that this dissertation, which I have submitted as part of the requirements for my Master of Management: Governance (Public and Development Sector Monitoring and Evaluation) at Wits Graduate School of Governance, is my original work. I did not submit it elsewhere, except where I have explicitly indicated otherwise.

Signed on the 19 of January **at Durban**

A handwritten signature in black ink, appearing to be 'MP Ngubane', enclosed within a circular scribble.

MP Ngubane

Acknowledgments

I thank God for guiding me during this journey. It has been the most difficult adjustment, particularly as I lost my brother, and I was impacted by COVID-19. God's presence was felt throughout.

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List of Abbreviations

ATR	-	Annual Training Report
CDO	-	Chief Digital Office
CHRC	-	Corporate and Human Resources Cluster
CDTD	-	Communications Digital transformation Department
DCDT	-	Department of Communications and Digital Technologies
DO	-	Digital Orchestra
DP	-	Digitization Piano Digital Business Transformation Framework
DTS	-	Digital transformation Strategy
DTSA	-	Digital Transformation Strategy for Africa
FGIs	-	Focus Group Interviews
GCDBM	-	Global Centre for Digital Business Transformation
ICT	-	Information Communication and Technology
IDP	-	Integrated Development Plan
IEC	-	Independent Electoral Commission
IT	-	Information Technology
L&D	-	Learning and Development
NATIS	-	Integrated National Transport Information System
NICT	-	National ICT Integrated
ODCM	-	Organisational Development and Change Management
PRIDA	-	Policy and Regulatory Initiative for Digital Africa
SARS	-	South African Revenue Services
SDA	-	Skills Development Act
SDGs	-	Sustainable Development Goals
SETA	-	Sector Education and Training Authority
SMART	-	Specific Measurable Achievable Realistic Time-bound
SSI	-	Semi-Structured Interview
WSP	-	Workplace Skills Plan

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CHAPTER 1: Introduction

1.1. Background to the study

This study seeks to investigate municipality employees' perceptions of the digital transformation of learning and development business processes and systems. The use of digital technologies in organisations, including municipalities, represents more than just the adoption of new tools; it involves a comprehensive transformation of business models, processes, and service delivery methods. This shift is driven by technological innovations like AI, cloud computing, and big data, which have the potential to significantly enhance efficiency, productivity, and service quality. The advancements have significantly enabled organizations to fundamentally reshape their operational processes, customer engagements and experiences, market strategies and business models (Westerman, Bonnet, & McFee, 2014). It has shifted from being a mere option to becoming an essential requirement for success in today's competitive landscape.

The digital development has also greatly affected the market for corporate learning technology supporting upskilling and reskilling and the conditions caused by the Covid-19 pandemic has created a real shift to online learning and the use of digital technologies. Therefore, employees' perceptions are vital to the success of digitalisation strategies for learning and development. Their acceptance and adaptation to new digital tools directly impact the success of such transformations in improving organisational performance and public service delivery. For instance, when employees have a positive view of digital initiatives, they are more likely to engage with and adapt to new technologies, leading to smoother implementation and better outcomes. Conversely, negative perceptions can cause resistance and hinder progress.

Learning and development in the municipality entails developing employees' knowledge, skills, and capabilities and empowering their growth to drive and efficiently deliver municipal services to its customers (IDP,2022-23). Its core function is for organising L&D activities such as upskilling, reskilling, onboarding, leadership development, role-based learning, professional development, and more.

The business process entails the need for determination, developing a learning and development (L&D) plan, implementing L&D plan and monitoring and measuring progress. The system refers to a group of interdependent elements or tasks that meet the L&D's broader objectives for enhancing employee performance.

The rationale for the study stems from the municipality's learning and development executive proposing to have at least eighty percent (80%) of business processes and systems changed aligning them to globalisation and responding to technological advancement which has presented opportunities to reconfigure how the L&D serve its customers both internally and externally. The stance is appreciated as it is associated with globalisation, competitiveness and opportunities presented by the digital transformation for government departments to reconfigure their business models, processes, and systems. To adopt modern approaches to finding solutions and enhance performance, boost learning culture, ensure effective and efficient service delivery, and minimize costs. Furthermore, to cope with disruptions and challenges in business continuity brought by Industry 4.0, the COVID-19 pandemic (Mhlanga & Moloi, 2020; Madsen, Haslam, & Nielsen, 2020 and), unrest and natural disasters (Joubert, 2020; and Municipal Digital Strategy & Roadmap), which placed more pressure on the municipality to accelerate the pace of change and the adoption of radical reforms to business operational processes and align strategies to digitalization. Modiba & Kekwaletswe (2020) asserted that the speed at which technologies are developed puts various initiatives as well as public administration agencies under pressure to go digital.

Further to external factors and executives' aspirations to transition to digital platforms are own general researcher's observations that many institutions operating in the learning and development environment are migrating their business processes and systems to deliver their programmes taking advantage of technological advancement. The municipality's L&D division operates like private and public institutions of higher learning, the difference is that it is in a corporate space and more focused internally, offering mostly occupationally supported learning and competency development programmes to employees. Processes of training delivery bear similar steps which comprise training initiation activities such as needs identification, application for training, planning, execution and feedback provision to learners.

Therefore, the ambition to investigate was to assess if the municipality, specifically the business unit entrusted with learning and development functions is also aligning itself to principles of globalisation and digital advancement. Furthermore, to understand employees' opinions around the benefits being the drivers and the gaps or barriers to transition the training processes and practices. It is acknowledged that transformation differs from municipality to municipality and service unit to service unit and is influenced among other factors by the complexity and needs of the customers.

Digital transformation modelled a growing need for change for many organisations in reforming their product development and service delivery. Even in the public sector, the presumption is that business models, processes, and practices driven by digital transformation are highly likely to change and advance the productivity, efficacy, and effectiveness of public sector performance. Organisations persistently pursue digital transformation as social, technological, and economic forces fuelled to exert change. Even though scholars like Fischer et al. (2020) cite that it has been commonly observed that many institutions that opt for digital transformation struggle to commence and tackle the challenges encountered in undertaking their digital journey and have no clear strategy on how to approach it.

Terms digitization, digitalization, and digital transformation have become the focus of attention, with further research and exploration by researchers and academics and ongoing experimentation by various organisations guided by technological advances. These concepts have some similarities and are sometimes misconstrued and used interchangeably, but they offer different meanings and purposeful results. Ritter and Pedersen (2022) assert that digital and digitized have different meanings when applied in an organisational context.

Digitization is about converting traditional manual tasks into modern computerized applications. Lozic (2019) and Kayikci (2018) define digitization as practices related to introducing and using technological tools to reduce activities performed manually using paper and physical applications.

On the one hand, digitalization is seen as a further step beyond the use of technology tools, it is improving business processes and realizing opportunities to use digital technology. Lozic (2019)

distinguishes between digitization and digitalization in how technology is used in business processes.

Vaska, Massaro, Bagarotto, & Mas, 2021) mention that digitalization and digital transformation terms are used interchangeably and supported by Henriette, Feki, & Boughzala (2016) as they affirm that the digital transformation is otherwise called digitalization both relate to the creation of business processes and systems optimisation, i.e., the practice of increasing efficiency by improving processes, as well as cultural evolution. Nadkarni & Prügl (2020) suggest that digital transformation has to do with the changes brought about by digital technologies in a company's business model and organisational structures. In the South African context, digital transformation can be described as changes associated with the applications of modern society, which include adopting disruptive technologies to improve service delivery and social welfare of citizens and increase productivity and value creation (Maremi, Thulare, & Herselman, 2022).

The prevalent use of the internet and web-based platforms channelled change in public administration management to digital era governance, reintegrating services into a holistic service provision model (Margetts & Dunleavy, 2013). Even though transformation is vitally important and allows for the alignment of organisational operations, culture, and civil and business adaptations to global digital trends, the haste with which it has entered has made it difficult for organisations to adapt and transition effortlessly through various stages (Alvarenga *et al.*, 2020). One gets to appreciate that the process of transformation is different in every organisation and is subjected to its internal and external environmental factors and the dynamics of the local context. Bucy, Finlayson, Kelly, & Moye (2016) supported by Sharma (2020) share that approximately seventy percent (70%) of complex, large-scale initiatives do not reach the desired goal and fail due to a lack of readiness associated with employee consultation, mindset change, inadequate resources, collaboration, and management support. The above thoughts are also confirmed by Fischer *et al.* (2020) in that many institutions do not have a clear direction in approaching digital transformation, and as a result, they encounter consistent challenges in their attempt to prioritize it.

Complications such as insufficient resources make it difficult to achieve the stated transformational aims in organisations as large as the municipality, which has over 26,000

employees and is surrounded by diverse culture and labour issues, political, and administrative hierarchies. Lomas (2021) supports (Bucy, Finlayson, Kelly, & Moye, 2016) citation that transitioning to a digital organisation, regardless of the size of the institution or change, is not about choosing to transform but rather how to carry forward the transformation. Therefore, understanding transformation is beyond what to do but rather how to do it and this cannot be over-emphasized and has been largely disregarded (Bucy, Finlayson, Kelly, & Moye, 2016). This means that when the municipality decides to transform business models to digital formats the transformation is not only about the implementation of digital information and communications technologies, it also concerns the optimisation of processes to products and service delivery. Changing on its own cannot yield improved efficiency, but rather changes in the value chain process adding more value using digital technology tools. It becomes important in the national, provincial, and local government context that developing a good strategy for digital transformation is something else but having a clear roadmap to see it through to ensure its successful implementation is critical. Otherwise, the strategy remains a document not used, misunderstood, regarded as useless, and unsuitable to address issues of digital transformation and society.

All these opinions bring in-depth thoughtfulness to the undertaking of digital transformation. Bucy, Finlayson, Kelly, & Moye (2016) advocate a holistic approach to fully embracing the digital era, which requires a comprehensive understanding of change, including both the ‘what’ and the ‘how’, and a highly disciplined methodology. Thus, managing change is important to address multiple expectations, properly plan, and become flexible in the approach. Striking a balance between handling L&D business demands and continuity and using digital transformation tools that best fit the business's operational and functional needs, customer satisfaction, and stakeholder expectations can be challenging. Therefore, a contextual understanding of what needs to change in training and development, why, and how to move forward with transformation is crucial. While the dream of undertaking a transformational journey brings excitement, one is cautious that if the digital transformation process is not handled well, it has the potential to have far-reaching negative consequences. This calls for exploration to establish the ‘what’ and ‘how’ toward digitally transforming the municipality's L&D operational processes and systems.

Therefore, understanding employees' perceptions of digitally transforming learning and development activities is essential for successful implementation and adoption. By studying these

perceptions, the concerned business unit can make informed decisions, address potential barriers, and tailor digital tools to meet employees' needs, fostering engagement, alignment with organisational goals, and effective change management. Additionally, it will help optimize stakeholder engagement, alignment with organisational goals, effective change management, resource allocation and enhances motivation, ensuring a smooth transition and a positive impact on both individual and organisational performance

1.2. Context

The Municipal Systems Act 32 of 2000 requires municipalities to employ internal mechanisms, systems and processes that are appropriate to enable municipalities to move progressively towards ensuring universal access to essential services that are affordable to all and by so doing resulting in increased efficiency and social and economic upliftment of local communities (Government Gazette, 2000:76). Digital technology and transformation are some of the central mechanisms that the municipalities are adopting to enhance internal and external business models to service delivery.

Due to how trade and technology have changed the world into a more connected and interdependent world, digital technology has become central. The globalisation, societal and customer pressures have aggressively forced organisations to reconfigure their strategies to remain competitive (Khanchel, 2019) . The municipality is no exception to the context. It is pressured by globalisation to change how it does business and services its customers. Furthermore, the transformation is exacerbated by several factors such as the ever-growing population, the effects of COVID-19, social unrest emerging from rising service delivery dissatisfaction and natural disasters. The effects of natural disasters, i.e. floods are also attributed to poor service delivery in terms of lack of infrastructure maintenance. Because the municipality is one of the Metropolitan areas, it is thought to have stronger local economic potential due to sectors like the port, maritime, manufacturing, automotive, etc. As a result, the municipality sees an influx of people seeking job opportunities. This increases the population of eThekweni and thus forces the municipality to expand its reserves to cater to everyone. Furthermore, the inability of the municipality to adopt digital transformation aggressively was exacerbated by the drawbacks caused by COVID-19.

The pandemic affected revenue collection as the majority of businesses shut down and people were retrenched losing their jobs. The fiscals that were set aside to implement major projects such as the modernisation of business processes and well-address service delivery issues had to be redirected to prioritise the emerging needs of COVID-19. While addressing the negative impacts of COVID-19, the municipality was also affected by the national shutdown due to unrest, and service delivery dissatisfactions demonstrated by the local communities. Businesses were looted, job losses were encountered, and people could not cope to pay for basic services. Although the above three factors hit the municipality badly, they also presented contrary opportunities to gradually modernising some of the functions. Technology tools were provided to employees, even though it was restricted to certain managerial levels.

The undesirable effects resulted in the municipality encountering a huge setback to rigorously shift, taking advantage of and prioritising digital transformation of business processes to regain its competitiveness. What is concerning is that very little investigation, if any, has been undertaken within the organisation to ascertain the state of readiness to embark on a digital transformational journey. Further causing concern is the state of resources and human capabilities, which pose even more constraints and necessitate adequate exploration of remodelling the business processes.

This is further attributed to the complexities of the work environment, issues of governance, leadership drive, and state of preparedness to transition, with critical factors considered in remodelling to digital reality and the requirements thereof.

The Skills Development Act 97 of 1998 requires the municipality to devise and implement relevant sector-based and workplace strategies to develop and improve the skills and competencies of the employees (Government Gazette, 1998). Furthermore, the municipality's mandate to ensure employee learning and development is supported by the Municipal Staff Regulation by the Municipal Systems ACT and in line with the Integrated Development Plan to put necessary systems and processes in place to ensure that staff is skilled to take up required responsibilities.

To ensure the attainment of the mandate the municipality established the Learning and Development unit to drive the learning and competency development of the municipal workforce. While the study refers to the Learning and Development unit (L&D) as a training and development

unit, for this study and to ensure alignment, appropriateness and consistency the researcher will change the identification of the unit from training and development to Learning and Development. In line with the municipal IDP Plan 5, the municipality is expected to empower municipal staff by enhancing their skills so that the services they provide are sustainable, effective, and efficient through its wing of the Learning and Development unit (IDP, 23/24:574). The municipality has staff complements of 26000 employees, both in permanent and fixed-term positions. To realize the employees' development, the Municipality develops an annual Workplace Skills Plan (WSP) through a critical assessment of the skills required to implement the IDP and the existing capabilities within the Municipality.

The technological advancement and digital transformation significantly caused learning and development in the municipality to be redefined and remodelled. Since 2001 the L&D unit has been responsible for creating and managing training processes. The digitalization came with a lot of changes ranging from digitalising facilitation methods, and content to communication and marketing of training offerings. Mikolajczyk (2022) adds that the focus of the L&D in the organisation has changed moving towards being a partner and business advisor. Unfortunately, the L&D unit is far from a newly defined role as they are still operating in the predigital era, still managing and creating training processes.

Despite this concern, the L&D unit has gradually, with limitations, introduced basic business virtual operational activities necessitated by Microsoft software packages such as MS Teams, which play a crucial role in virtual meetings, seminars, conferences, training and collaborations. In addition, Microsoft Outlook for communications and SharePoint for collaborations and document management were also introduced even though they are not optimally utilised. The introduction of technological tools and digital applications assists in business continuity and ensures that the L&D unit renders support services to internal stakeholders such as the developing municipal workforce even though the virtual operations are limited to those with access to technological tools. Further to concerns around the state of appropriate business systems and processes, constraints on resources such as access to digital technological tools, internet connectivity, relevancy of training offered to address current needs of individuals and organisations, as well as capabilities to realize improvement approaches, systems, and practices to change processes and improve products and services rendered, are a challenge.

Challenges observed in relation to digital adoption progress from L&D are associated with lack of progress to adopting and transforming L&D activities. This could be attributed to staff not understanding what digitalisation entails; or lack of a vision of future L&D professionals primarily use technology to deliver learning via for instance traditional learning management platforms or collaboration technology. Further, it could relate to leadership not clearly communicating the vision of digital and not having a direction and guidance supporting staff to initiative the transformation. When staff asked about the progress made on digital transformation there has been an indication of lack of technological tools. This creates a presumption of resistance to change, a lack of digital literacy, and insufficient training and leaders' guidance and support. Employees may also feel overwhelmed by the pace of technological advancements and fear job displacement. Additionally, there are issues with inadequate infrastructure and resources to support virtual operations, such as reliable internet access and updated software. These challenges can hinder the effective integration of digital tools and limit the potential benefits of virtual L&D initiatives.

In addition, the L&D unit is currently in the process of securing an open-source system, i.e., Moodle, as an integrated learning platform to address some of the challenges encountered (L&D management report, 2021). The L&D at this point does not have a digital learning system. Most of its processes, procedures and practices are performed manually and physically, like some trainings are facilitated physically, there are still paper trails in some administrative activities, etc. Therefore, investigations and understanding of the municipality's employees' perceptions to transform learning and development business processes and review the current state are necessary to rigorously support the transition to digital reality. The adoption of digital transformation in learning and development will mean changes in all aspects of the business processes, and the creation of new roles and products or learning programmes which require new skills, and competencies (Modiba & Kekwaletswe, 2020).

1.3. Research Problem Statement

Like any other government department, the municipality is facing unavoidable digital transformation in this era of globalisation exacerbated by the COVID-19 pandemic, unrest, and

natural disasters. Unrest and natural disasters exacerbated the use of digital technologies by disrupting traditional, physical operations and forcing the municipality to find alternative methods to continue its business. For instance, during periods of unrest, businesses and government entities were unable to conduct in-person meetings, training sessions, or service delivery, prompting a shift to digital platforms for continuity. Further, the forces intensified by digital transformation approaches outside the public sector are shifting citizens' expectations of public administration to deliver high-value and immediate digital services (Mergel, Edelmann, & Haug, 2019). The change requires a quick shift towards digital learning processes, especially for internal stakeholders and employees to enable them to perform their responsibilities as expected (Mikolajczyk, 2022). During change, there is a perceived gap associated with a common understanding of digital transformation and an appropriate strategy and framework to guide the implementation of learning and development interventions in the municipality.

While other municipal service units are modernising their processes to deliver services to their clients, the learning and development unit is still lagging. Most training processes in the municipality are still done manually and courses are delivered using traditional approaches such as the use of video cassettes for demonstration and face-to-face facilitation. In addition, there have been concerns about the alignment of internal courses to technological advancement being rolled out. This has resulted in employees' lack of interest in participating in development programmes facilitated by the L&D unit. The concern about the alignment of internal courses with technological advancements is central to this research because it addresses a critical challenge in workforce development. When training programs do not reflect the latest technological changes, employees may perceive them as irrelevant, leading to disengagement and a lack of interest in participating. This misalignment can hinder the municipality's ability to keep its workforce updated with necessary skills, ultimately affecting productivity and innovation. As a unit in the organisation L&D practitioners are increasingly expected to play a major role in helping municipality to respond to future external and internal trends (Keen, 2021).

Embedded in this is the question of the state of readiness to realistically respond to the call for a transition to modernise training planning and implementation processes, i.e., converting processes to digital formats. The transformation will not only enhance the efficiency of learning and development delivery but will meet the broader objectives in terms of positioning the municipality

as a smart and learning city as well as addressing the challenges of providing the required skills (IDP, 23/24). The levied pressure is on the executives of learning and development in the municipality, to migrate at least eighty percent (80%) of its services to a digital format or electronically, especially activities performed manually such as old methods of facilitating training.

Given the complexity and dynamic environment, the municipality being a large organisation, and the effects of external factors digital transformation seems to be a big project on its own and perhaps the target set might not be realistic. In addition, the diverse composition of employees at a very low level and the nature of learning interventions some of which are too technical to be done virtually rather require the physical presence of individuals. The remodelling of training delivery value chain processes, introducing future needed skills and offering relevant developmental programmes and being smarter in its business approaches, adapting the use of technology, i.e., the internet of things, artificial intelligence, and innovations to deliver training and records and document management will address employees lack of interest to participate in internal occupationally based developmental (Parida, Sjodin, & Reim, 2019). However, the new ways should also take into consideration the diversity and complexity of the municipality. It is presumed that digital transformation will open up new opportunities for the L&D unit if done right, realistically and if it is embraced beyond narrowing opportunities and reduced mindset.

Staff in lower-level positions who are expected to implement digital transformation are concerned about the lack of direction, resources, and capabilities required to reform business process operations successfully. According to Pekkola, Ylinen, and Mavengere (2022), transforming to digitalization entails investment in resources, skills, and competencies. This has resulted in business disruptions and the department's inability to deliver L&D as expected. This accelerated adoption of digital tools also revealed gaps in digital infrastructure and employee readiness, necessitating a more robust integration of technology into everyday operations.

Thus, the situation called for further investigation to understand aspects that may not have been explored or developed before the thought of digitalizing business processes (Reis, Amorim, Melao, & Matos, 2018).

1.4. Research purpose

The purpose of the study is to understand the interpretation, state of readiness and significant factors that require considerations for change on the intention to digitally transform and modernise business processes and systems as perceived by the learning and development planners, implementers, IT support as well as training recipients. The employees will be interviewed to get their perceptions about digital transformation. It is expected that employees' perceptions will provide insights into their understanding of transformation, what could be reformed, share possible obstacles and how will the change benefit the service unit as well as the recipients of training. In the end, the findings could be used to guide the transformation process.

1.5. Specific Objectives

The background information emphasizes the need for digital transformation within the municipality, driven by factors like globalization, technological advancements, and external forces. The L&D like other units within the municipality is required to adopt digital mechanisms to enhance service delivery and increase efficiency. Despite efforts, the L&D unit faces challenges in fully embracing digital transformation, highlighting the need to assess employee perceptions, readiness, and the necessary changes to modernise training processes and systems effectively.

The study objectives align with this context by aiming to understand employee perceptions of digital transformation, determine the rationale and features needing change in the L&D unit, establish systems and strategies to support the transformation, and identify the resources and capabilities required for successful implementation.

The study thus has the following objectives:

- a) To determine employees' perceptions on the interpretation of digital transformation in the learning and development context within the municipality.

- b) To establish the rationale for transforming the Learning and Development unit's processes and determine the features that require change or need to be transformed.
- c) To establish the system and mechanism, e.g., strategy, and other systems in place to support the transformation process
- d) To understand the types of resources and capabilities available in the municipality and those required to progressively facilitate, support and achieve the transformational objective of the business unit processes and systems.

1.6. Research Question

The main research question to guide the study is:

What are employees' perceptions around the digital transformation of learning and development business processes and practices to enhance the efficiency in the planning and delivery processes of learning and development interventions within the eThekwinini municipality of KwaZulu Natal Province in South Africa?

The following sub-questions were developed to guide the research inquiry and to react to the study's research objectives:

- i) What do employees perceive digital transformation to be in the context of learning and development within the municipality?
- ii) What business aspects must be changed or digitally transformed to achieve learning and development business optimization and the intended goal?
- iii) How can digital transformation be carried out by the learning and development unit to ensure that business processes and practices are streamlined and improved?
- iv) What resources and capabilities are critical and required to enable the change and achieve the intended outcome?

1.7. Significance of the Study

The study is significant in helping numerous stakeholders, including recipients of training and development, managers and officials mandated with planning and implementing, and training providers, understand what to expect and how to manage employees' expectations. The research will give a framework for comprehending the digital transformation that is widely acknowledged within the municipality. The research will help executives consider developing a framework to guide the implementation of digital transformation for L&D planning and delivery processes. Furthermore, the study's findings could be used to address challenges connected to factors influencing digital transformation.

1.8. Organisation of the Study

This study is organised into six chapters. Chapter One introduces the study, highlighting the importance of digital transformation and outlining the problem statement, research purpose, objectives, and questions. Chapter Two reviews relevant literature, focusing on digital transformation in the public sector. Chapter Three details the research methodology, including design, data collection, and limitations. Chapter Four presents qualitative findings on L&D process reforms. Chapter Five analyses and interprets the data in relation to the research questions. Finally, Chapter Six summarizes the research, offering recommendations and conclusions.

CHAPTER 2: Literature on Digital Transformation Framework

2.1. Introduction

Digital transformation has received global attention and impacts social lifestyles, corporate governance, and operability and the environment, Kraus, et al. (2021) agree with Vial (2019) and Fischer, Imgrund, Janiesch, & Winkelmann (2020) digital transformation influences and changes societies and industries. The disruptions brought by digital transformation present opportunities for governments and the private sector to reform business processes, and practices to meet global demands and embrace a rapidly changing environment. This shift is becoming increasingly necessary as digital tools and platforms revolutionize how things are done and how information is accessed and consumed.

Although the private sector is generally considered to be at the forefront of digital technology, governments, at least within their control and capabilities, have evolved and adapted to digital technology trends over time. Under certain circumstances, it has been observed that some institutions are slow to switch. Nevertheless, the Fourth Industrial Revolution provided no opportunity for experimentation, forcing organisations to make hasty decisions about digital transformation. The COVID-19 pandemic has further increased deployment pressure, forcing companies to adapt to the technical requirements of Industry 4.0. Faced with business disruption and the digital divide, companies could not afford to hold back and needed to move nimbly while mitigating risk to ensure sustainability. In addition, pressures are emerging from rising societal expectations, new competition, and the demand for the gradual integration of digital technologies into daily life and lifestyles, leading to value creation beyond service and product provision. Organisations cannot afford to fall behind while communities adapt to technological advances.

The acceleration of adoption is unprecedented, making a sustainable transition nearly impossible for some organisations. The public sector being impacted by the accelerating digital transformation and is feeling more pressure to modernise their business processes and systems for efficiency. It is presumed that in most public sectors, the pressure to change poses crises, high risks, and unsustainable impacts and doubts to society.

The uniqueness of each organisation has become increasingly recognized, but the digital revolution has prompted organisations to recognize and reflect on their position on global, national and local competitiveness, the fundamental imperative, and the feasibility of digital transformation. This situation has also highlighted the importance of maintaining an adequate level of digital acceleration.

Of particular importance is how organisations, especially local government departments or municipalities, can make informed decisions about which project processes to transform, invest in, and package to transform their business models to achieve their desired goals digitally.

In this section, we survey the literature to gain insight into how digital transformation is perceived, what elements are essential and should be considered for change moving toward business remodelling and digital transformation efforts. In addition, frameworks for reforming and designing business processes and systems that various institutions have adopted go beyond technological exploration and advancement to create value, especially in local governments. Global consideration is made, and national contexts and practices are also shared to place phenomena in the context of local municipalities.

2.2. Digitization and Digital Transformation

While definitions of digitization and digital transformation have been shared, they are better understood in certain contextual environments. Without understanding the concepts of digitization and digital transformation, it will be difficult to implement and transform them in any situation. In the context of learning and development, digital transformation carries the connotation of bringing learning to where employees are, and it concerns the approaches to digital learning rather than a type of learning (Greany, 2019). It is important that while understanding digital transformation a view of what it means in this context is shared and be interpreted as shaping the way the municipality uses digital technology to facilitate and coordinate learning. The example provided earlier problem statement concerns webinars, seminars, and virtual collaborations. Therefore, definitions or illustrations offered below must be understood in the framework provided above and be contextualised on the ability of L&D to introduce digital formats that result in a skilled workforce and enhanced productivity.

Digitization entails the conversion of products or service procedures to digital format. Procedures and functions that traditionally had to be performed manually by individuals are computerized or performed electronically for convenience, easy access, storage, and processing. The web-based internet applications allow individuals to work seamlessly and access information at any time. Ritter and Pedersen (2022) simplify it as a transition to electronic applications and procedures using technological tools that optimally adapt to new operating standards. For example, the municipality used paper-based resumes for recruitment processes in apprenticeships, learnerships and internship programmes for unemployed individuals, i.e., to post opportunity openings, and individuals responded by filling out manual forms and returning them. However, advances in technology have made it possible to introduce blended systems that allow applications to be submitted online and physically. Online applications are strictly permitted for all positions relating to graduates' internships. Whereas manual applications are still considered in positions at the learnership or apprenticeship levels. The practice carries the presumption that individuals applying for apprenticeship and learnerships developmental programmes are mostly likely to have a digital literacy gap and lack access to technological tools to respond to opportunities. While reviewing application documents is still considered tedious, transforming paper trails into data creation, record processing, and storage in digital formats is the way forward for simplicity and accessibility. It is the most cost-effective and time-saving approach. Another prime example is the introduction of technical electronic service systems by the municipality, the Internet of Things, such as supply chain activities, online advertising opportunities, online payment of services and the automation of invoices as a means for system control. Digitization is therefore moving from paper-based systems and practices to electronic or computer-based means.

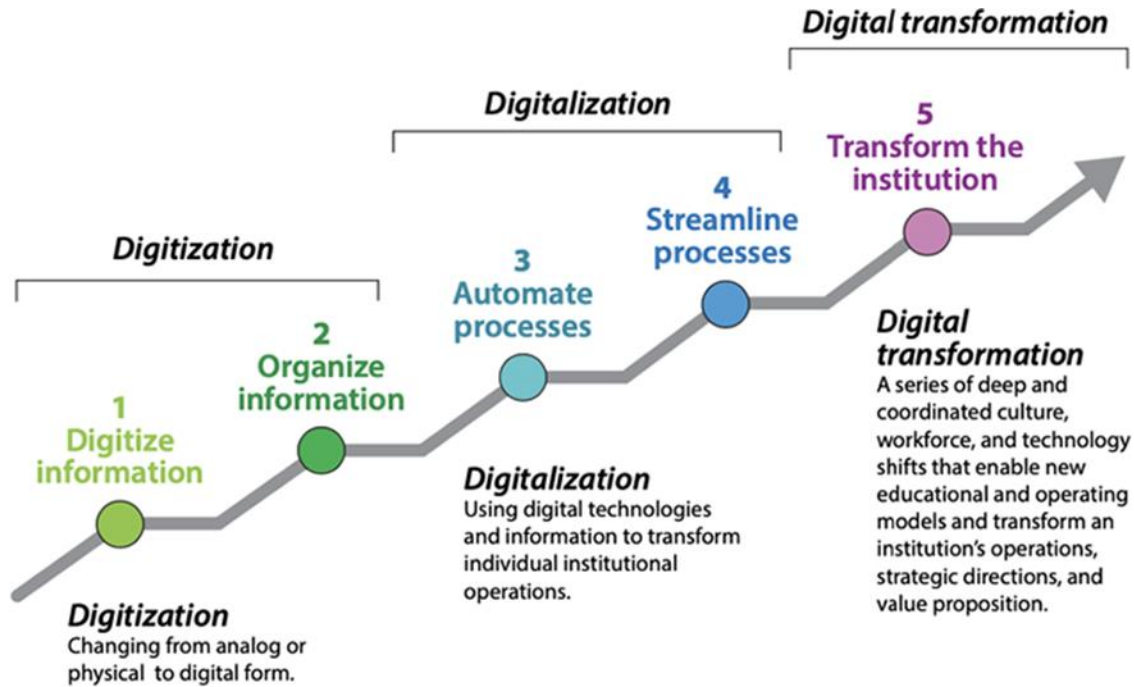
Whereas digital transformation is concerned with the innovation of business models and processes, the emphasis is on a holistic system's restructuring of business processes through digital dispersion. It is taking advantage of new opportunities presented by the advancement of technology. It is also associated with the use of technologies to create value-added propositions and opportunities (Gray & Rumpe, 2015; Heberle, Löwe, Gustafsson, & Vorrei, 2017; Fogoros, Maftai, Olaru, & Bitan, 2020; Ritter & Pedersen, 2022). From this, it can be inferred that digital transformation is associated with improving productivity and efficiency while reducing costs, leading to more efficient business processes.

For example, in the context of learning and development in the corporate environment, digitalization may involve the use of advanced technological tools and the Internet of Things to enhance the facilitation processes of occupational-based knowledge and competencies resulting in employees' and organisational performance and productivity improved. This includes providing greater accessibility and flexibility for learning and development to take place and supporting remote work principles by enabling access to information and materials anytime and anywhere, thereby enabling continuous professional development. It is appreciated that digital transformation is made possible by digitalization leveraging and using new digital technologies to improve business functions, improve processes and procedures, and standardize or streamline processes. For example, change is required in the whole value chain of L&D aspects and involves people, not only one particular activity. One example of digital transformation is the introduction of remote working, moving from office jobs and practices to remote work. In digital transformation, there is a greater emphasis on skills and capabilities that support change or transformation.

Additionally, digital transformation is appreciated as it presents a holistic view of the organisation's ecosystem, which integrates the technological infrastructure, human capital capabilities, and services it provides to satisfy and fulfil actual customer needs. Digital transformation is, therefore, seen as a transformational mechanism and modernization of traditional business operability modes and applications to harness technology to improve business-oriented and customer-centric business processes, procedures, and systems. A simple interpretation is that there are new methods and approaches to redesigning business models, service and product offerings, and relationships to remain competitive, responsive, and aligned with customer needs in the internet and digital age. Moreover, this permits remote operations.

Grajek & Reinitz (2020) summarise definitions graphically as reflected below in Figure 1. The definitions depict the relationship and interconnections between the introduction of technology tools, migrating from manual practices to transforming operational processes, and enhancing learning culture and value propositions.

Figure 1: A Digital Transformation Pathway (Grajek & Reinitz, 2020).



2.3. Digital transformation in government

Adopting digital transformation is often associated with employing innovative ways of adding value in doing business and taking advantage of technological advancement. Reasons for the adoption vary from one institution to another, for example, to remain globally competitive, enhancement of productivity, and customer-centricity. Even though to some organisations, the transition has not been straightforward and easy (Sharma, 2020). Fischer *et al.* (2020), seem to agree with Sharma (2020) who stated that it is not uncommon for many organisations embarking on digital transformation to struggle to get started. Hence the traditional or hybrid service delivery approaches are still practiced, with services provided both online and offline. The definitions above provide a perspective for understanding a direction toward transformation through innovative and intelligent integrated approaches that reinvent business models, operational processes, and practices to meet the needs of internal or external customers. In addition, creative approaches must be used to accelerate service delivery and improve accessibility cost-effectively and conveniently.

Digital transformation offers perspectives on countries at all stages of development that recognize the digital transformation of services and products as a growing global phenomenon. The exploration and adoption opportunities that digital transformation offers to improve and augment a variety of industry-specific aptitudes. In addition, there is growing research interest focused more on governments following suit, i.e., adopting the same, enabling change, and driving digital transformation to improve administrative performance and service delivery (Corydon, Ganesan, & Lundqvist, 2016). With regard to transformation, all organisations, including government entities, differ in their ability to meet changing social expectations and service satisfaction through the digitalization of business processes and service delivery. However, complexities related to organisational culture, bureaucratic leadership, resource and skill status, etc., have made the transformation of the government sector difficult and unable to be realized at the accelerating pace of digital advancement.

Developed countries are progressively moving from manual approaches to technology and evolving digital methods of service delivery, reinventing internal and external business processes to boost efficiency, simplifying and streamlining business operations, and modernizing core functions of corporate management. They have reaped great benefits as a result (IT Online website article (2021). Siebel (2019) undertook a study examining how both business and government organisations harness the power of disruptive technologies and how business and government will operate in the 21st century. While this profound and fast-moving transformation can appear scary author like Siebel (2019) demonstrated how organisations could not only survive but thrive in the new digital landscape.

E-Government is a concept introduced and adopted by government organisations around the world to use technology to improve their information communication approach. Furthermore, e-government intends to improve public service delivery by converting manual applications into web-based Internet applications and platforms. Gindgrena, Madsen, Hofmann, and Melin (2019) mention that government agencies around the world are using digital technology to improve interactions between officials and citizens, improve efficiency, service quality, turnaround time, and deliver seamless service. Specific spin-offs of e-government services are linked to positive impacts, such as collaboration, improved effectiveness, efficiency, reliability, and the connectivity that enables connections and interfaces between technology tools and other digital assets. Although

some of the effects may not translate similar interpretations and results to all societies, especially in South Africa with a multi-dimensional setup. In addition, in successful and developed countries electronic services help government agencies improve and evolve their administrative functions to provide more effective, efficient, and affordable service delivery. The system has improved responsiveness and transparency and optimized public spending (Saha, Nath, & Salehi-Sangari, 2020; Ghayur, 2006).

E-government services have evolved into a cloud that combines mobile and social media, and its integration provides flexibility, easy access, and the sharing of information. This has led to the consolidation, standardization, and streamlining of some business processes, providing flexibility while maintaining quality (Kayikci, 2018). Even if e-government had already served its purpose before the introduction of the digital transformation, it had its preferred and unfavourable implications felt by governments and society. For example, e-government focused on external relations and interactions with citizens and businesses driven by social pressures rather than optimizing internal business processes and systems (Effah & Nuhu, 2017). The intended objective only benefited a few with access to technological means, and communities in disadvantageous peripheries seemed to be excluded, creating a bigger digital divide.

It may however be argued that progress made on e-government services by successful countries may not readily translate into another environment as the extent of positive impacts highlighted. The success of the application is highly influenced by the multi-dimensional societal processes linked to economic, social, environmental, political and cultural diversified factors. The importance is the ability of the country to create its local-global blends responding to the uniqueness of local issues. Remaining competitive globally does not necessarily translate into copying and pasting what other countries do but finding new ways to construct solutions necessary to their environment. For example, to participate and contribute to the global SDG's agenda to provide quality training, it requires the country to understand local issues, and systems and borrow the theory to address them uniquely.

In this reflection, it becomes clear that even though digitization has been more externally focused, directed at enhancing certain components of service delivery and relationships and engagement between government, citizens, and business (Margetts and Dunleavy, 2013), efforts have changed

the landscape of government service delivery. Despite challenges experienced, the government unceasingly thrives to transform administrative functions, advancing from e-government services to massive restructuring for value-added functions. Ertlmaier, Etzion, Kofman, & Paulus (2010) also acknowledge the public sector's endorsement and appreciation of the value added by digital transformation in optimising service quality, effectiveness, efficiency, and global competitiveness.

The public sector in Africa gradually aligned itself to technological advancement trends, continuing with modifications and assumptions of laws, policies, and strategies to support service provision systems transition from conventional application mode to electronic service delivery. The Digital transformation Strategy for Africa (DTSA) supported by other initiatives and frameworks such as the Policy and Regulatory Initiative for Digital Africa (PRIDA) promotes the alignment, integration, and inclusivity of digital initiatives (African Union, 2020) in the African continent. However, the implementation, integration and alignment remain a challenge for other African governments. The adoption of digital transformation by government leadership offers opportunities for increased productivity, effective and efficient governance, and more collaborative action.

Developing countries such as Rwanda, Angola, and Mozambique have made remarkable progress among African countries, making significant progress in transitioning to digital government to boost domestic efficiency and modernise central government functions (OECD, 2018). The successful transition to the digital space can be attributed to strong leadership support, political stability, and institutional arrangements and coherence. In addition, the countries' leadership in digital transformation has pioneered the adoption of political controls, strategies with clearly defined goals, and multi-layered approaches to digital government implementation and experience. The arrival of the Fourth Industrial Revolution has brought rapid change and inspiration to use enhanced digital technologies to enhance business processes and deliver lasting benefits. These changes are now a greater imperative for the entire government administration and organisational ecosystem (Fogoros, Mafrei, Olaru, & Bitan, 2020).

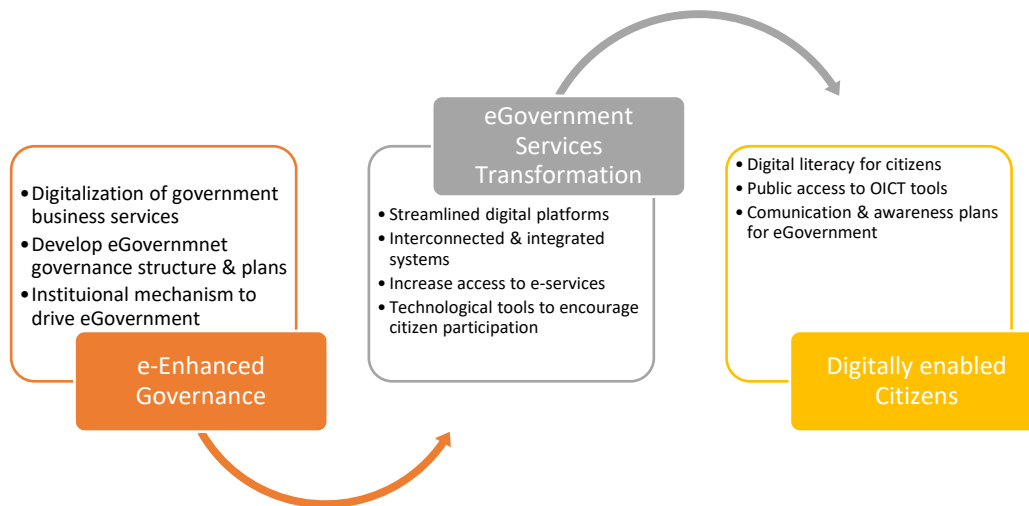
South Africa is one of the developing countries recognised for driving forward with digital transformation at around the same pace as the rest of the world (IT Online website, 2021). Digital technologies have been observed to influence business model innovation, prompting changes in

strategies and processes for government agencies to respond to and adjust to digital demands and global competitiveness (Vaska, Massaro, Bagarotto, & Mas, 2021). The South African government is no stranger to digital development. Thulare, & Herselman (2022) agree with Thakur & Singh (2012) that attention to eGovernment services started in the 1990s and early 2000s when there was an appreciation of the internet and web technology to transform business processes and practices. The intent of adopting an e-government approach similar to other countries was to improve service delivery to citizens while also enhancing the efficiency of government activities (Thakur & Singh, 2012). Even though the intent for eGovernment services was clear, South Africa being a diverse and multi-dimensional society, used the eGovernment services also as a way of addressing historical equalities and imbalances (Maremi, Thulare, & Herselman, 2022). For example, transforming services, such as payment for basic services, communication, and access to information and opportunities, have been transformed into larger digital electronic formats and systems.

As a way of appreciating and regulating ICT-related initiatives, the South African government adopted the National ICT Integrated (NICT) White Paper in 2016 to promote an inclusive digital society. In addition, the NICT White Paper supports the digital transformation of government to improve service delivery to its citizens (Government Gazette, 2017).

It led to the development of the National eGovernment Strategy which was directed by the then Ministry of Telecommunications and Postal Services. The National e-Government Strategy and Roadmap was released in 2017. This strategy aims to provide a strategic direction for introducing and using ICT in response to the transformation to a digital society and the Fourth Industrial Revolution. Furthermore, to promote the digitisation of government services and transform into an inclusive digital society and economy country. The strategy was informed by a situational assessment conducted to understand the ICT demands to improve service delivery, obstacles experienced, and financial implications in the undertaking.

Figure 2: National eGovernment Model (Nkuna, 2017)



This strategy was primarily concerned with the needs of society in terms of access to information, knowledge, and business (Nkuna, 2017). While government departments at the national, provincial and local government levels embraced eGovernment, aligning themselves with global trends and improving public service efficiency and effectiveness, relatively few made efforts to move their services to online platforms (Government Gazette, 2017:10).

Some government departments that have made efforts to make their services available online include the Department of Home Affairs, which introduced functions such as online ID and marriage status verification. In addition, SARS as effectively implemented e-filing for tax management, yielding exceptional returns. The Independent Electoral Commission (IEC) followed suit with an online voter information management system that allowed voters to register and verify their credentials electronically. However, online systems introduced by Transport such as Integrated National Transport Information System (NATIS) attempted but have not attained the desired outcomes of effectively migrating its car and license registration functions online (Government Gazette, 2017: 5).

Nkuna (2017) reflected on lessons from the implementation of initiatives by the different South African government departments. The government adopted a framework incorporating a common vision, strategy and approach to direct implementation across all government levels. The roadmap provided an institutional framework, or a governance structure, to coordinate and direct the implementation of digital initiatives in the public sector. This suggests that eStrategy provided room for improvement in developing a more comprehensive plan that pervades all levels of government and serves as a framework for coordinating and implementing Internet-based solutions. The strategy envisions each government sector adopting its policies and action plans tailored to its contextual needs per the broader strategic goals and objectives. eStrategy, for example, requires municipalities to establish smart city strategies and create their digital initiatives and roadmap (Nkuna, 2017).

To build an enabling environment, the strategy called for departments to examine the following factors in their adoption and implementation: Technical requirements to support and provide necessary services. Secondly, invest in a skills revolution by reskilling and upskilling the workforce for current and future capabilities. Have leadership-backed institutional mechanisms to coordinate and drive change efforts, develop measurable goals, and develop enabling political regulations.

It has been the general observation that South Africa is known for having great strategies, but it faces challenges when it comes to executing them. Many initiatives would be designed and rushed into execution without proper preparatory assessment. (Rumelt, 2012) shares that a good strategy should reflect a detailed and accurate diagnosis, reveal the problems and challenges that need to be addressed, and provide policymakers with a comprehensive approach to addressing those problems. The strategy is thus defined as a plan or a tactical approach. Therefore, it is imperative to have a consistent, well-coordinated course of action to implement the policy. Thus, a strategy based on SMART, meaning specific, measurable, realistic and timebound principles is essential.

There is little, if any, literature on digital strategy implementation in the country. The researcher could not locate any literature to support the assertions that an audit was performed to gain lessons from the implementation of the eStrategy. According to Nciweni, Matsilele, & Abrahams (2023)

despite efforts made and the growing use of digital technologies the literature on the subject remains emergent, transient, polarised, and unreliable.

More research with empirical results is required in this field. In addition, the country needs to strongly introduce a monitoring framework to assess the implementation of national strategies and how are government departments performing. The article written by AWS Institute (2022) reports that the audit uncovered huge public spending on digital technology from 2018 to 2021, reaching an estimated R62 billion. It is estimated that at least, 50% of the 34 major digital technology projects did not meet expectations. This was seen as a huge loss; hence, it was considered to provide a dedicated and unique capability to drive the country's digital transformation. South Africa can learn from its African sister countries by crafting compelling examples of public sector digitization successes.

The Communications Digital Transformation Department has reviewed electronic strategies and actions to fully embrace and implement 4IR to maintain global competitiveness, inclusiveness, and high performance. The revised strategy builds on the three pillars of human-centricity, focusing on developing talent and skills for the 4IR ecosystem, economic development, and integration to maintain global competitiveness and developing a sustainable technological infrastructure to support digital transformation in government departments (Government Gazette, 2020). In addition to the introduction of the National eGovernment Strategy, in 2020 the Department of Communications and Digital Technologies (DCDT) published the National Digital and Future Skills Strategy. The strategy was released following Chapter 12 of the 2016 National Integrated ICT Policy White Paper and Chapter 4 of the 2017 National eGovernment Strategy (Government Gazette, 2020).

While this strategy appeared to be comprehensive in terms of providing government departments with the conditions necessary to achieve their digital goals, both strategies are critical to the government's ability to implement digital transformation effectively, however, it appears that they contain minimal information indicating the regulatory framework supporting digital transformation in all spheres of government, guiding and managing business processes, systems, administration, and technical government functions. As a result, insufficient attention has been made to supervising and monitoring projects to learn lessons for future digital endeavours.

According to Remoriting (2022), innovation efforts must produce measurable, tangible, and impactful results.

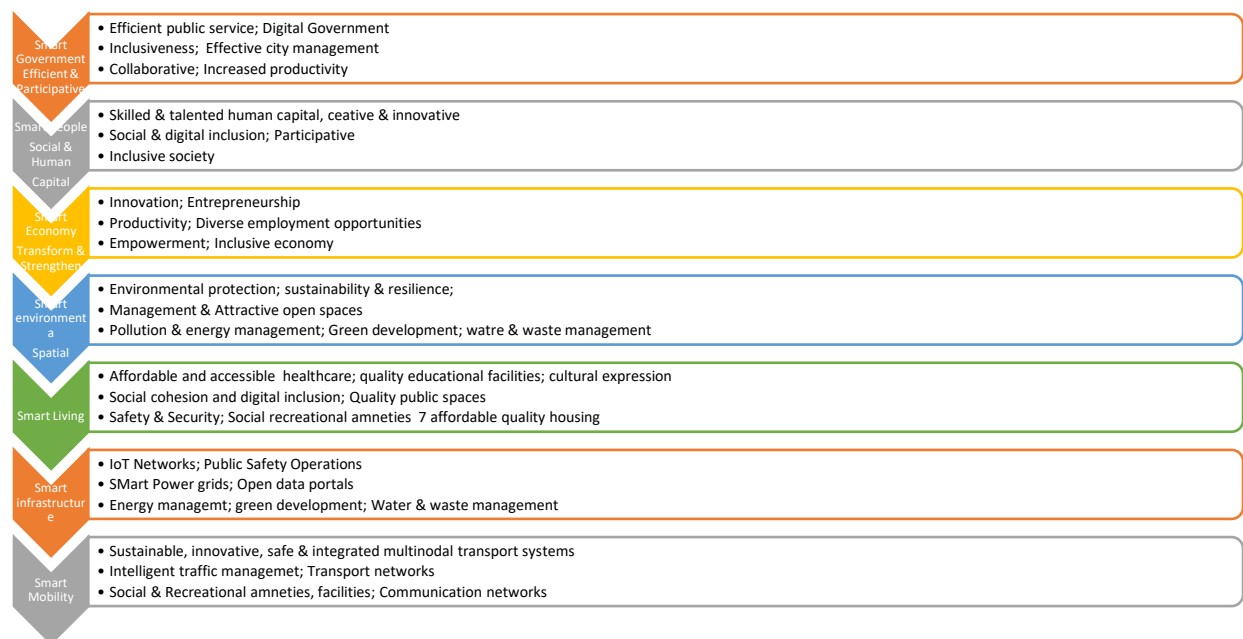
Despite the appreciation levelled by the IT Online website article (2021) that South Africa is moving forward with digital transformation at the same pace as the rest of the world, (Maremi, Thulare, & Herselman, 2022) argues that the country is still trailing in terms of digital transformation and in realizing the broader goal of digital government. Factors attributed to the country's lagging include the lack of coordination between government departments, in efficiency, redundant processes, a lack of political will and stability and institutional coherence, technological infrastructure, and digital capabilities or literacy. Maremi, Thulare, and Herselman (2022) support challenges impacting the country to achieve the desired digital government in that delays in a country's rigorous digital transformation are attributed to broader external complexities, such as being a diverse country with a local context and varying environmental factors like technical, infrastructural, institutional, legal, and regulatory elements, which determine the scale and extent of transformation.

The National eGovernment Strategy allowed provincial and local governments to create policies and mechanisms to lead digital projects. The provincial digital transformation strategy sought to leverage the 4IR in order to establish a citizen-centric, modern, and digitally empowered KZN province (ICT Integration Plan for DIGITAL TRANSFORMATIONS, 2020). It further encourages all government institutions in KwaZulu Natal to align their 4IR initiatives with provincial planning. This approach speaks to the integration of systems as per the National eGovernment Strategy.

The national strategy provides scope for the coordination of digital initiatives from the national, provincial the local government sphere to develop its strategies and roadmap to guide the implementation of digital transformation. While municipalities are known for their diverse environments, they face more pressure to foster digital innovations to accelerate service delivery. The researcher acknowledges the lack of literature on research conducted at various levels of government to assess the effectiveness and extent of the processes involved in successfully embarking on the digital transformation journey, drawing lessons from strategies adopted towards remodelling business processes and systems to enhance municipal service delivery holistically.

The research case study, eThekweni municipality, has developed the SMART city strategy, a digital transformation enabler. The municipality's digital strategy is built on seven pillars and serves as a framework for laying the foundation for and guiding community digital initiatives.

Figure 3: eThekweni Digital Strategy and Roadmap Pillars



The first pillar addresses service delivery challenges by improving technology usability. This is thought to reduce paper-based operations, address operational opacity, and be cost-effective, especially given the organisation's struggling financial position and inefficiencies in operational processes. The second pillar assumes that the digital strategy will assist in addressing resource bottlenecks caused by lack of maintenance, obsolescence, and disruptions to business and service delivery. Third, it promotes and enhances communication among communities and residents. Similar to the National eGovernment Strategy, the municipality's strategy prioritizes residents and businesses to ensure improved communication and service delivery. In addition, it allows individual municipal business units to develop their digital transformation plans and systems, but there is no unifying plan or internal framework for planning, executing, and monitoring digital transformation initiatives. Only a few business units within the community have set up their digital systems that are not linked to the digital ecosystem.

For example, revenue services have implemented an online billing and payment system for services. In addition, most human resource recruitment and management operations such as job applications and leave management, have been migrated online for ease of access, convenience and efficiency.

Therefore, one can deduce that all three strategies have interconnectivity from the national, provincial, and local government levels. All strategies have elements of citizen-centricity, enhancement of administrative business processes for efficiency and productivity, human empowerment, governance structures that supposedly drive digital transformation projects, consideration for economic growth, and opportunities created through digital transformation initiatives.

While the municipality promotes digital transformation through its strategy, there is an opportunity for improvement in the overarching framework for integrating all digital initiatives within the municipality into a digital ecosystem and ensuring sustainability. Key integrative factors amongst the three strategies recognise digital government to enhance service efficiency, transparency and increased access and inclusivity. They also comprised of citizen-centric approach referring to societal inclusivity, engagement or participation for user-centricity experience, and investing in developing people to have digital capable citizens. Further, there is an appreciation of technology tools, and improved connectivity to necessitate improved communications and interactions. All are geared towards the improvement of the well-being of citizens.

Although the digital strategy for the municipality provides the broader scope laying the foundation and setting direction for all digital initiatives in the municipality, the L&D unit seemed not to have taken advantage of the Strategy provisions. The L&D unit appeared not to be clear on the direction it needs to take to put an action plan or execute its digital project. The fact that there was verbal instruction to transform to digital platforms left a huge gap in the team's state of readiness to comprehend and define the expectation and even determine resource requirements for transformation.

While many local governments have adopted online learning platforms to supplement traditional classroom-based learning. The transition allows for more flexibility, cost-efficiency, and

scalability. A study by Brown & Charlier (2013) emphasizes the growing use of technology for L&D in local governments. They further indicate that e-learning platforms have allowed local governments to provide training more effectively across decentralised regions. However, success has depended on factors such as access to technology, employee motivation, and the relevance of the content.

2.4. Challenges to Digital transformation

Reflections on global, national, and municipal digital transformation strategies and implementation reveal that digital transformation adoption and execution are not easy practices. It necessitates that the organisation is at a certain level of maturity, culturally agile, and transformation ready. For instance, the municipality has made recognisable strides in implementing its digital smart strategy, by introducing basic digital elements mainly enhancing its customer experiences, operational processes and some extend business models. There is still long a to go as there are still areas for improvement especially on category of digital capabilities.

Ammon, Ertlmaier, Etzion, Kofman, and Paulus (2010) recognize that in a corporate setting, business processes must become agile, respond promptly to changes, and adapt quickly to new conditions. The concern is, however, how ready and feasible it is to put enablers in place for the municipality to adapt and react swiftly to digital advances. What could be potential obstacles or challenges that pose as hinderances in the process?

While the rationale for the national, provincial and municipality in terms of their strategies concerns with adopting digitalization as a means of improving the efficiency and effectiveness of delivering services to the public through reforming and mainstreaming its processes is appreciated, the connotation also carries underlying presumptions with higher hopes that migrating to digitalization would bring enormous positive effects in government administration and governance, such as combating corruption, enhancing transparency, and increasing accountability, as well as efficiency in public spending (Dobrolyubova, 2021).

With all these varying expectations, ineffective implementation of digital transformation may negatively impact the undertaking for organisation operability enhancement and society at large and constitute a huge loss. Various challenges that cautiously bring insights when embarking on a digital transformation journey are encountered. Lappi, Aaltonen, & Kujala (2019) outline government preparedness. Conceptualizing what and how to start the process to be able to experience value added in business processes is significant. Issues of bureaucratic hierarchies, organisational regulations, and strategies become vital and are major hindrances to the process if not addressed.

Nationally there has been strides made in the implementation of the digital strategy. One example is eNaTIS, the electronic traffic information system of South Africa's Road Traffic Management Corporation. The system was developed to enforce national road traffic laws that were challenged by integration with legacy systems. Another example is the introduction of national health insurance. National Health Insurance is intended to facilitate access for eligible citizens and requires an electronic medical records system to register and track beneficiaries. This challenge stemmed from a lack of technical skills, infrastructure, and governance. Furthermore, is the online booking system introduced by Home Affairs, which intended to minimize corruption and improve efficiency, also did not work as expected, as Home Affairs still has queues and acts of corruption still exist (Maremi, Thulare, & Herselman, 2022)

Like other municipalities in the country, the municipality has been struggling toward digitalization, enabled by evolving technology and motivated by efficiency, good governance, and quality services. Govender & Reddy (2019) agree that there has been limited digitalisation at eThekweni municipality due to governance processes and overall governance framework. Even though there is an overarching framework that makes provisions for individual units in the municipality to develop their own digital modelled processes, the rapid shift posed massive challenges associated with a lack of resources such as finance, infrastructure, and capabilities like technical expertise and digital skills (Effah & Nuhu, 2017); a lack of staff readiness; unplanned additional costs (Dobrolyubova, 2021); and a lack of a clear understanding of strategic direction (Wade et al., 2017). Dobrolyubova (2021) adds that other challenges associated with transitioning to digital platforms are issues relating to the security or protection of data, ethical and privacy issues, and

excessive outsourcing, which also contributes to increasing costs. Govender & Reddy, 2019) recommend coordinated and collaborative efforts toward digitalisation.

Some reflections are drawn from the Shava and Doorgapersad (2022) survey conducted in Tshwane, which shared challenges on reluctance and resistance to change, gaps in leadership, a lack of an innovative research culture, strategies, and gaps in realizing transformational visions. In addition, they revealed limitations, such as the lack of mechanisms to fill the digital divide. Thus, many of the issues discussed could have resulted from a lack of preparation, whereas institutional readiness, a stable regulatory and political environment, and investment are key factors to consider. This is supported by Yaghi (2015) in that employees, particularly those who have been in the system for longer periods, often resist changes in learning and development methods. The resistance is due to comfort with traditional learning systems and the perceived lack of relevance of new methods. Another perspective is that while digital learning offers numerous advantages, some employees are not comfortable with technology, leading to lower engagement and perceived usefulness of e-learning platforms.

Furthermore, it is understood that perceptions when change occur will vary. Some will feel positive about change while others will have some elements of doubts. Caldwell, Chatman, & O'Reilly, (2014) mention that employees in other studies expressed concern that transitioning to online platforms reduced the interpersonal, experiential elements of learning which are mostly valued. While others appreciated the benefits of flexibility and accessibility. Especially younger employees those with tech-savvy backgrounds adapt more readily and see learning and development reforms as an opportunity for personal and professional growth (Pynes 2009). While Kearney & Hays (2015) also found that when local governments introduced new learning and development frameworks, employees appreciated programmes that were aligned with career progression but were resistant to changes that seemed disconnected from their everyday work.

Digital transformation is, therefore, a process that must be viewed holistically and clearly cannot be approached by jumping in without proper coordination or simply relying on outsourcing to implement it (Fitzgerald, Kruschwitz & Welch, 2019). Maremi, Thulare, and Herselman (2022) suggest that broader governance reforms should be included to mitigate risks and minimize challenges associated with digital transformation. While the National eGovernment Strategy

mentions establishing a governance structure to drive and support the digital transformation, the terms of reference, scope and efficacy of the institutional mechanism are still unclear. The governance structure should be visible and monitored in some way to draw lessons for future digital initiatives. Hence as noted in the previous discussions, the importance of frameworks as blueprints for transformation cannot be overemphasized. Lappi, Aaltonen, and Kujala (2019) explain their views, noting that government thinking on digitalization needs to be integrated into information, communications, and technology efforts, aligned with strategy, and regulated accordingly. All these views point to the importance of governance and the systematic organisation of transformation processes and strategies. In addition, knowing what needs to change, how change can be approached, and what resources are in place or required. More importantly, leadership support and the ability to unpack and share the vision

Therefore, the rapid transition to digital requires governments to understand the change, identify key impacts and risks, acquire relevant skills, and invest resources. Steps to improve existing processes and practices to manage effectiveness and efficiency are shared. This is what the transformation requires, rather than undertaking it for the sake of digital transformation itself (Dobrolyubova, 2021).

Learning and development within the eThekweni municipality, needs digital transformation governance strategy to successfully digitalize and transform its business models and operations by changing traditional business strategies to meet the demands of its customers. Westerman, Bonnet, & McFee (2014) undertook a perception study interviewing executives to explore how larger companies use digital technologies to transform their businesses. Executives realised how digital technology disrupted industries and knew they needed to pay attention to changes. Digital advances improved their traditional technologies to change customer relationship, internal processes and value proposition, although at varying levels of success. Some transformed larger parts of their organisations, others focused on basics, while others were encountering organisational issues which prevented them from transforming successfully. For those who were successful their execution combined digital transformation activity with strong leadership turning technology into transformed technology. This reflection indicate that organisations vary in their digital maturity. Leading digital change requires a clear vision, strategy and SMART operationalized plan,

communicated with all stakeholders, and warrant integrated action plans, which should begin internally by modifying internal digital systems.

A bigger challenge with the municipality or government departments in general is the attempt to go bigger without a proper foundation. Saarikko, Westergren, and Blomquist (2020) share that strategies for digital transformation execution must be done gradually, starting small and building on direct tangible benefits, teaming up and creating competitive advantage from brand recognition and relationship establishment with information technology components, not only to supply technological tools but to be part of the business process reform; engage in standardization and streamlining efforts; take responsibility for data ownership and ethics; and own the change and ensure organisation-wide commitment. Management's role in making this a success and a priority is greatly emphasized. This suggests that as drivers of change management, they are expected to become digitally mindful, be prepared for the transformation journey, have clearly defined objectives and intent for change, and before committing and setting major targets, have buy-in and commitment. Maremi, Thulare, and Herselman (2022) believe that the successful implementation of digital transformation will help public services solve problems related to service delivery and internal functioning problems.

2.5. Digital-ready framework

Several frameworks adopted by various organisations serve as guidelines for radically changing operational business processes. Fountains' Technology Enactment Framework and Approach to Governance in the Digital Age (Fountain, 2006). Fountains' approach is based on an institutional perspective that focuses on the impact of technology on organisations.

While the goals are related to innovative uses of the Internet, the enacted goals include individuals' use, design, and awareness of these technologies. An organisation's institutional arrangements limit recognition and use. Therefore, the use of technology depends on how organisations and individuals are ready, understand, and utilize it, i.e., how individuals use it. (Mugo, Njagi, Chemwer, & Motanya, 2017) propose a framework for understanding how end users come to accept and use technology. Even though this aligns with exploring perceptions and readiness

among different levels of individuals within the municipality the framework could not be employed in this study.

Another readiness framework is the Dunleavy (2006) Digital Era Governance, which recognizes the impact of public management paradigms and the different ways in which technological change is perceived as enabling the transformation of public sector organisations and enhancing efficiency. This is not about the technology that drives change but how companies operate and use technology to advance their goals (Lomas, 2021).

Holmstrom (2021) points out that few organisations have successfully migrated through digital transformation, and only those have developed a readiness framework to manage the transition progress (Holmstrom, 2022). This observation suggests that any digital transformation effort undertaken without a clear direction is hopeless and futile. Would one then presume that perhaps the municipality's Learning and Development unit struggles with the complexities of digital transformation due to a lack of readiness, including an assessment of organisational readiness, resources, and expertise to support the transformation? One gets to appreciate that the digital readiness framework serves as a blueprint and strategy that provides direction for any organisation to understand, plan, and execute its transformation. Simplilearn (2021) emphasizes the importance of a strategy to set specific, achievable goals and manage the migration process.

It is recognized that there is no one-size-fits-all approach or solution. The framework should be context-based, valuing organisational complexity and resources. Holmstrom (2022) recommends the four-dimensional concept of preparedness to reflect current conditions and future expectations, focusing on goals, boundaries, activities, and strategies to strengthen technology. While Deloitte (n.d.), provides a high-level framework that involves assessing the organisational environment (external and internal); developing a business strategy; assessing business impact; designing (architecting) a business solution; and establishing initiatives and organizing solutions, McKinsey and Company (2021) emphasize the inclusion of organisational leadership and management, setting clear targets, investing in resources, identifying short-term, measurable projects, identifying a team, encouraging an agile way of working, promoting digital culture, systemizing and prioritizing initiatives, determining and developing workforce capabilities, and outlines new operational models. This perspective provides necessary factors for consideration, emphasizing

the role to be played by leadership or management in the drive, the drafting of a strategy to guide what is needed and why, and investment in resources such as technological tools and human capabilities, which have financial implications. The strategy should be phased into logical steps for measurable and tangible progress.

Reflecting on various citations on digital readiness, it became apparent that before embarking on a digital transformation journey, there are critical questions to be asked, such as why an organisation needs to transform and go through the process of change, for whom and what needs to change, and how (Sharma, 2020). Sharma (2020) adds that organisations are known to be non-aggressive and respond quickly to transformative issues. There are many reasons why organisations consider digitizing their operations, but most of the motivations are related to addressing the impact of service delivery. For example, the City of Tshwane adopted digital transformation to address the lack of innovation associated with service delivery disruptions.

2.6. Theoretical Framework

The prime theoretical framework for this study is premised on the Digital Orchestra Framework (DO), which replaced the Digitization Piano Digital Business Transformation Framework (DP) (Nwaiwu, 2018). The DO framework has been published by the IMD and Cisco Corporation's Global Centre for Digital Business Transformation (GCDBM). The Digital Orchestra is premised on the notion that the organisational leadership, before embarking on the digital journey, must understand key elements that require alignment and instrumentation to successfully transform digitally and evaluate strategic options to attain. The framework has been employed in South African contexts such as the financial sector by (Modiba & Kekwaletswe, 2020) as well (Benzane, 2019) assessing digital transformation in the mining sector. The researcher positively believes that the DO is the appropriate framework to assist the study investigation.

According to Wade et al. (2017), using the DO to embark on a journey to digital transformation should demonstrate the blending of four broad fundamental areas with defined key elements, which include go-to-market (understanding product and service offerings and channels on how offerings get to customers); stakeholders engagement (interactions and interfacing with key

stakeholders such as clients, employees, and partners); operations (opportunities for creating new business processes as well as determining IT capabilities and systems); and organisation (changing organisation in terms of structure, ethos, culture, and incentives and rewards). Ritter & Pedersen (2022) and Fogoros, Maftai, Olaru, and Bitan (2020) emphasize that skills and resources are central to transformation. Within this premise, digital transformation is proposed as a process of stepping back and re-evaluating the state of readiness, operations, existing resources, skills, and governance in terms of structures and processes to determine what is needed to support the transition (Saarikko, Westergren, & Blomquist, 2020).

Imgrund, Fischer, Janiesch, and Winkelmann (2018) present it as streamlining and standardizing processes and integrating them into a holistic approach and strategy that promotes the digitalization of products and services.

Applying the Digital Orchestral Framework will serve as a valuable blueprint for the digital transformation of a municipality's training, learning, and development processes and practices to achieve desired goals. This framework comprehensively considers capacity building and integrates contextual environmental factors aligned with business models, services, and value chains to organise, integrate, and transform internal and external resources. Considering this digital transformation requires a holistic approach, including a change in management mindset, improved leadership recognition, and a strategic focus on addressing issues related to current business operations and the envisioned digital future. Additionally, understand the rationale for transformation, what to transform, and how to transform.

Figure 4: Demonstrates the DO framework model used in the study (2015-GCDBT).

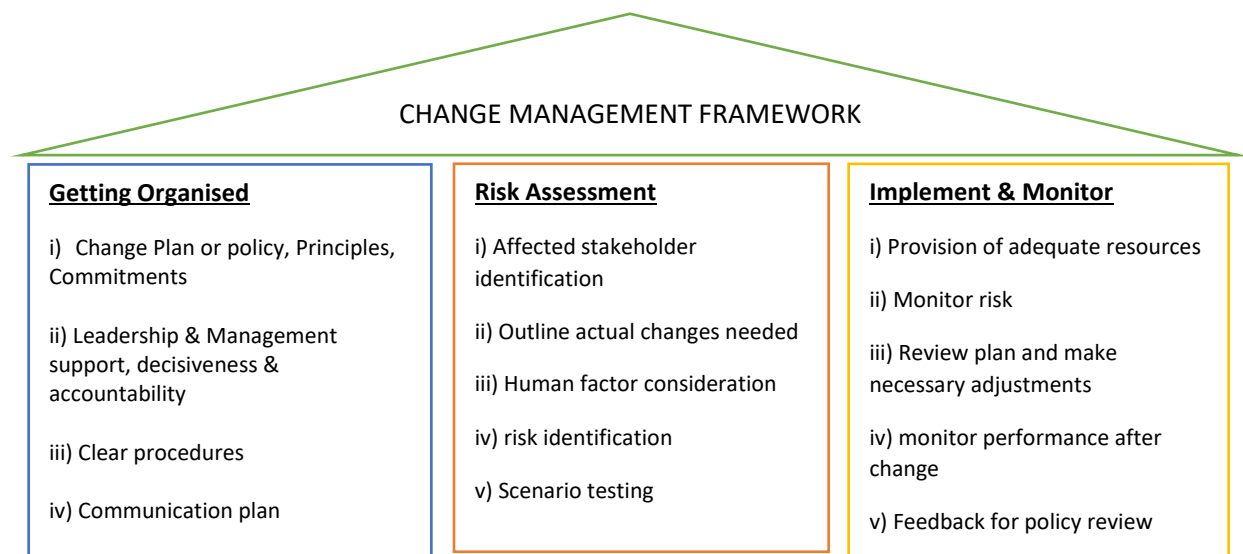


2.7. Change Management

While the focal point of the study lies on digital transformation and is premised on the DO framework, change management is also a very important construct. Change management is regarded as a process of embarking in a continual adjustment reviewing and renewing the organizational direction, structure, or capabilities to service the ever-changing needs of both external and internal customers (AlManei, Salonitis, & Tsinopoulos, 2018). While the L&D service unit realises the impact of globalisation and the need for a technological transformational change reforming its L&D business processes, systems and practices, the implementation of change can be a more complex process (Price & Chahal, 2007). The complexity could be aggravated by those resisting to change due negativity or disappointments brought by the municipality's environment, i.e., structural hierarchy, things are more politicised and unionised and had to follow certain protocols for approvals and support. For example, a consideration of analysis needs to be made to ensure that digital transformation does not have any negative impact on the business unit's functions, and structure as well as does not amend employees' job performance or descriptions without any acknowledgment. The change recipient's trust and willingness to change are regarded as the key factors for a successful change. Holden, Or, Alper, Rivera, & Karsh (2008) confirm that considerations of analysis, planning, engagement and consultation with stakeholders and continuous learning become key principles entrenched in the transformation process. Weiner (2009) agrees with Price and Chahal (2007) that obstacles to

change processes must identified and managed carefully, impediments such as poor communication and underestimation of the scope of work and retraining required. L&D's digital transformational process must manage unforeseen scenarios for a successful transformation. Saetren & Laumann (2017) suggest a three-step framework i) getting organised for change; ii) assessing risks; and iii) implementing and monitoring the change.

Figure 5: Saetren & Laumann's Change Management Model (2017)



Getting organised entails having plan or policy for managing change, agree on principles, commitments and accountabilities. Leadership and management must demonstrate clear commitment, and support and be held accountable for transformational processes. Furthermore, it requires a clearly defined realistic systematic procedure to be followed with assigned roles and responsibilities on identified activities to be performed and timeframes. This will be a project that requires financial, physical (technological tools, network infrastructure), and human resources with well-defined responsibilities. Similarly, the plan needs to be communicated to all affected individuals to ensure that everyone knows what is expected of him/her.

Risk assessment includes identification of affected individuals, changes to be introduced because complexity could be hazardous in a larger municipality, consideration of human factors such as

their capabilities, competencies, work distribution and determination if there is a need to amend their specification or consider additional capacity. The emphasis is placed on human factors capacitation, especially those individuals required to drive the process which should not be overlooked.

Implementation and monitoring are critical to see the transition through. Resources are very important similarly as mentioned in the DO framework. For change to be successful adequate resources must be provided for. This must be seen as an investment rather than a liability associated with pouring a lot of money into an unplanned project. Tracking progress will be important to allow for any required revised decisions and adjustments to be made, as well as assessing risks identified. Lessons drawn from this process could be utilised to inform similar projects.

2.8. Conclusion

Understanding digital transformation for the L&D component in the municipality is important. For change to happen Change management principles tie well with the researcher's theories on digital transformation adopted to guide the study. The emphasis on readiness, DO and change management is on establishing organisational readiness for change and recommends strategies as a roadmap to achieving transformation. Thus Weiner (2009) advises that readiness for change is when members of the organisation collectively agree and commit to change and further bring shared capability to effectively implement change. It is also appreciated that transformational and deliverable-led change takes time and requires a lot of investment. Therefore, embracing and valuing change irrespective of who originates the change and how it is introduced is important.

CHAPTER 3: Methodology

3.1. Introduction

This section provides information on the research methodology and techniques employed in the study to investigate the perceptions of the eThekweni Municipality's employees about the digital transformation of L&D business processes, systems and practices. Key components of the methodology include a research strategy and design applied, data collection instruments, target population and sampling technique used, data collection process, processing and analysis, and presentation of findings. Furthermore, it outlines the research gaps and ethical considerations for the study.

The researcher undertook action research, which enabled a strong appreciation of participants' opinions and contributions reflected in real-life contexts. The approach is important in understanding key aspects for consideration toward undertaking the journey to digitally transform L&D business processes and practices within the L&D unit. The study adopted the phenomenological paradigm, which is descriptive in nature. The intent was to understand and describe perceptions of the factors surrounding the digitalization of L&D operational processes and systems within the municipality. How employees make sense of it and transform change and experience into realization, i.e., to gain deeper insights on the common essence of an employee's understanding of digitalization and their perceptions reflecting on virtual learning experiences to build future desired goals (Patton, 2015). The researcher acknowledged that adopting this requires one to have a clear positionality, to set aside preconceptions, and to be as objective as possible, using existing theories to reference determinations.

3.2. Research Strategy

The study adopted a qualitative research strategy. The decision to use a qualitative strategy was based on its relevance to the study, as it emphasizes open communication, giving individuals the right to express their opinions and interpret their own settings. Further, the expression of data collection, analysis, and interpretation in written format was more prominent than the numeric approach and its prominence in the inductive approach, i.e., appreciation of the relationship

between theory and research (Bryman, 2012). The study aimed to gain richly detailed information, i.e., a more in-depth sense of the situation, the state of readiness, contextualization, and factors for consideration in the digitalization of the L&D processes and systems. Transitioning to digitalization means huge changes for the organisation, the department, and the employees. It requires open communication and affords individuals the opportunity to reflect on reality and contribute to transforming and reforming their settings, drawing lessons from existing theories and practices of digitalization. Thus, qualitative research provided deep insights into capturing the distinctions of human experiences, attitudes, and behaviours that quantitative methods may overlook. It allowed for a rich exploration of context, meaning, and underlying motivations, making it essential for understanding the complexities of social interactions, organizational culture, and individual perspectives, which are critical for developing effective strategies and interventions.

3.3. Research Design

The study considered a research design that was relevant, appropriate, meaningful, and understandable to produce valuable outcomes that are credible, valid, and reliable (Patton, 2015). The research design selected was aligned with the research framework and strategy to respond to study questions. Bryman (2012) defines research design as a guide to collecting and analyzing data, which correlates with the exploration and information required to understand employees' perspectives on digitalization and what it means and become experts in their contextual setting and application.

The design considered in this study was a research case study. The case study design necessitated engagement in detail with complex phenomena and intensified assessment of specific cases of interest in a stipulated location (Bryman, 2012). The study took place within the municipality to gather employees' viewpoints about the digital transformation of L&D operational processes and systems to enhance the delivery of services and offerings. The case study appropriately matched the research questions to determine a common understanding of concepts, what, why, and how to transform digitally. Bryman (2012) further shares that a case study leans towards an inductive approach to the relationship between theory and research in cases where a research strategy is mostly qualitative.

Patton (2015) describes two approaches to data collection in terms of interactions and frequency of visitation. The first is the one-point-in-time approach, which entails one interaction with an individual or site visit per place in a given time. Meanwhile, the other involves multiple points of contact over some time, referred to as longitudinal data collection. The data collection followed the one-point-in-time method to save time and get all the data needed at once. The researcher encountered some challenges in applying this approach as some interviews had to be cut short due to load shedding because they were conducted virtually via MS Teams, and the researcher had to meet with the affected respondents again, which impacted the flow of the interviews and at times interviews had to be restarted from the beginning. Furthermore, it had limitations in areas where changes or additional information was required, and the research had to do retrospective or recall persons, affecting the consistency and credibility of the data.

3.4. Data collection tools and their applications

The study originally proposed employing semi-structured interviews with individual employees directly involved in training and development. Furthermore, an additional tool for data collection proposed to be employed was the focus group interviews, which allow open discussions with a small group of people on a specific topic of interest (Patton, 2015). Focus group interviews (FGI) were planned to be conducted with the recipients of the training. An interview guide was going to be used to ensure the standardization of open-ended questions, that discussions were managed and directed appropriately, and that time was spent wisely. This would have ensured that interactions were more focused while permitting individual perspectives and experiences to occur.

However, after noticing the dynamics in the municipality, the FGIs were not applied. As much as focus group interviews are known to stimulate open discussions and allow people to evaluate their perspectives in the context of others, which differs from a one-on-one interview. Patton (2015) affirmed, however, that focused interviews should be carefully planned to create a "permissive, nonthreatening environment," a platform that "inspires participants to share perceptions and points of view without feeling any unnecessary pressure to side with or agree with other participants. Therefore, the Focus group interviews, intended for the training recipients were not considered due to the complex environment in the municipality.

Thus, the study employed a semi-structured interview method, mostly one-on-one interviews with targeted employees and document review. Documents reviewed included management meetings records, the municipality's IDP for the 23/24 period as well as the municipality's digital strategy and roadmap. These methods were chosen to allow for flexibility, providing participants with the opportunity to share their observations and perspectives in their way.

A semi-structured interview (SSI) is one of the tools commonly utilized for an in-depth exploration of an issue involving different stakeholders and to enhance those stakeholders' engagement. Chilisa (2012) defines semi-structured interviews as focused interviews that permit open discussions directed through open-ended questions using an interview guide with a specific focus issue(s) of interest. Bryman (2016) compliments the citation, adding that semi-structured interviews allow a researcher to have an open mind and that there is less restriction on the information that can be collated.

Initially, the researcher intended to go to the locations of participants to get to know them and their circumstances. Unfortunately, all participants preferred non-contact sessions which allowed for virtual engagement and very few requested questions be sent to them. This was also done concerning the prevailing COVID-19 situation, and in adherence to regulations, virtual interviews were accepted and recorded with participants' consent.

The instrument itself was more valuable in undertaking an exploratory study, which was viewed as a positive developmental area where there was never a need to quantify but rather to collect in-depth information. Overall, these tools yielded the intended in-depth perspective of participants regarding the digitalization of L&D processes and systems. It assisted in capturing not just what was said but also how the participants uttered it.

A guided questionnaire with open-ended questions was developed to assist interviewees. One acknowledges that SSIs were time-consuming since the researcher had to spend more time with respondents, affording them adequate time to respond to the questions presented. It was also likely to have leading questions that might have introduced bias into interview discussions.

3.5. Sampling

The study was classically in-depth and relatively focused on a small sample size selected purposefully to get more insights and understanding around the digital transformation of L&D processes and systems. Therefore, a purposive sampling was employed, targeting at least 17 officials in the municipality. However, the sample size was revised after the committee cautioned about the larger number and recommended that a consideration be made to adjust the sample size from 23 to at least a minimum of 15. Patton (2015) shares that purposive sampling is important in qualitative studies where in-depth, rich information is needed and for a focused case study to learn and understand fundamental issues related to the purpose of the inquiry.

The researcher initially targeted three managers from L&D responsible for training implementation in various departments within the municipality; 2 managers responsible for workplace skills plans in various municipal departments; and three principal trainers directly entrusted with training facilitation/ implementation and two coordinators. Two managers responsible for training planning and 2 managers responsible for overseeing training implementation participated. Furthermore, 3 trainers responsible for training employees, 1 official responsible for training planning and 1 coordinator were interviewed. Obtaining the perspectives of officials directly involved in the planning and delivery of the training was crucial in gaining their viewpoints and understanding how transformation would benefit their work. With the perception that change would bring new opportunities and necessitate training, it was important to understand what needs to change and how to make it happen. It was also crucial for them to provide their thoughts on what basic fundamental resources and capabilities are required to facilitate the transition.

Five (5) training recipients were interviewed to determine how change would contribute to their development and what change is required to enhance processes and systems of training. ICT support manager and change management representatives were also interviewed to assess their state of readiness and to determine whether there are any mechanisms in place to support the business unit's journey towards digitally transforming training and developing business processes and systems. ICT representative was interviewed to get insights on their role and state of resource readiness to support the transition from the technological, software, and connectivity standpoint.

The number of participants earmarked for interviews was adjusted as cited earlier on in response to revised data collection tools. Patton (2015) advises that there are no guidelines for sample size in qualitative inquiry; sample size depends on what information is needed, the purpose of the study, what will be useful, valid, and credible, and what can be done within the available time and resources.

At least four of the respondents were not interviewed after being given questions. This limited interactions and follow-up inquiries. The researcher also noticed significant gaps in their responses and was unable to contact them.

3.6. Process of data analysis

Interviews were held virtually using MS Teams to provide for individual recording, transcription, and direct expression. The participants' consent was sought before recording, and additional notes were made on a separate sheet to capture individuals' expressions on what they said and how they said it. The researcher adopted a thematic analysis method to analyse the data set. The thematic analysis involves searching for frequently repeated ideas in a transcribed data set and organised information into coding and themes. Unlike in grounded theory, the thematic analysis method can only be applied once the data collection has been completed (Riger & Sigurvinsdottir, 2016). It was the researcher's responsibility to ensure that the information collated was protected and kept safe without being manipulated and to protect participants' identities. Recordings were transcribed and notes were made on potential coding.

Despite the notion that transcribing is a tedious and time-consuming process, it helped in becoming acquainted with the data collected and beginning to search for recurring patterns of information for creating themes. It was noted that themes could not be created instantly, once the recurring ideas were identified the process also involved generating codes and organizing information into potential themes. The systems thinking approach was utilized during the organizing of information and creation of codes, i.e., decoding data collected. The approach was very useful when applied using an Excel spreadsheet and coding was guided by the research questions and sub-questions asked. The data was eventually coded and categorized into key themes and sub-themes in line

with key research questions, analysed, and captured electronically. Initially, the researcher suggested using Atlas ti, however, there was an appreciation of the lack of knowledge in using the system.

It is acknowledged that the researcher must be disciplined enough to update backups frequently and not destroy all old copies, especially the original master copy (Patton, 2015). Further, there was an appreciation that data analysis is not straightforward and requires time to be done thoroughly. Consequently, data quality became critical and was ensured at all intervals. Quality checks were rooted in the electronic computerized system, i.e., excel to detect any possible errors; constant checks were conducted, and responses were reviewed for completeness and consistency before finalizing and transmitting data into a secure system.

Chilisa (2012) refers to the process of data analysis as the foundation of data validity. While Patton (2015) recommends that data analysis begins during fieldwork, data was prepared and organised by marking all available information sources at disposal that would be relevant to the analysis of the information gathered. The data was then examined until it made sense and had meaning. Gaps discovered throughout the review were addressed. It was acknowledged that the review component may take some time and necessitate repeatedly examining other components of the data. Following the completion of the review, initial data codes were created to identify common factors or variables. Colour-coded highlighters and notes in the margins were used to assist with data links. The review of codes was finalized once the recurring themes, categories, or variables were identified. Subsequently, themes and sub-themes were captured and presented cohesively. This level took into consideration the intent of the study, the targeted audience, and the content that was to be included to best narrate the knowledge.

3.7. Reliability and Validity

Reliability and validity were observed to be highly difficult in qualitative research since the researcher's focus was on people's beliefs and perceptions and derives meaning from systems from the viewpoint of the people, which is considered very subjective (Brink, 1993). Furthermore, it

was recognized that the quality and integrity of the research are very important if the findings are to be employed or integrated into core service delivery.

The study findings were considered significant and intended to be used to guide the transition of L&D processes, systems, and practices into digital space and to ensure that there is a common understanding of the phenomenon. To ensure the reliability of the study, the researcher ensured that there was consistency in, for instance, investigative procedures to account for personal and research method biases that might have affected the results. Noble and Smith (2015) share that consistency in research requires sound judgment on the appropriateness of methods utilized and the integrity of results. Brink (1993) supports the idea that ensuring validity to capture the accuracy and honesty of findings is important in any research study. The researcher ensured that internal validity was attained so that research findings truly reflect reality.

Thus, to ensure consistency, dependability, and honesty of the results, the researcher ensured that appropriate methods were used for data collection and analysis and that any potential bias was identified, acknowledged and reflected upon to minimize any possible influence that might occur on the findings. Brink (1993) cautions about the risk posed by participants to validity and reliability, in that they might misrepresent facts by making things seem better or worse than they are or attempt to please the researcher. This consideration was also recognized.

3.8. Limitations and positionality

The study used the utilitarian approach, which was firmly restricted to a defined functional area that was context-specific and even though the results cannot be generalized to the whole municipality or local government (Sidorenko & Arx, 2020).

Adding to the above, the scope of discussion in the digital field was also a limitation. It was acknowledged that it could have compromised the study outcome due to restricted knowledge of the subject and experience in conducting research and producing academic reports.

The researcher anticipated a lack of prior study in the topic domain, particularly in local government. A literature review served as a foundation for research and assisted in determining

the scope of the research; therefore, it was important. The researcher conducted more literature reviews to become more acquainted with the subject and to explore the research undertaken further.

The researcher acknowledged that researchers must recognize and articulate their positionality. The researcher is zealous about L&D and has worked in the field and local government environments for over ten years. She began her career as an agricultural facilitator, training farmers on various farming systems. The selection of the study focus is inspired by the evolution of business processes and systems, which has become more challenging and complex. Thus, this enhanced her passion for the fourth industrial revolution and her wish to learn more about digitalization and its application to corporate business operations.

3.9. Ethics

The researcher strongly adhered to the principles of ethics to ensure that the rights of research participants are protected and maintained. Ethical clearance is important in any research involving human participants. The approval was obtained before interviews were conducted and data collected. Halai (2006) advises that sound research is a moral and ethical effort and should be concerned with ensuring that the interests of participants in the research study are not harmed. To show respect to participants, the researcher introduced the study and confirmed if they were still happy to proceed; for example, participants were provided with an outline of the study and given voluntary consent for participation so that they did not feel as if they were being pressured. Further, respondents were advised of their rights to participate or not or withdraw at any point without any consequences and that participation was voluntary. The participants were assured confidentiality and anonymity by not revealing their identities and making recordings available to anyone without their consent, and it was not the intention of the study to share such. Furthermore, the Protection of Personal Information Act was strictly adhered to. Mapitsa and Ngwato's (2019) advice noted in that advances in ethical consideration should go beyond consent and do no harm but demonstrate humanity. As a result, the researcher valued all features out of humanity and gratitude for their participation.

3.10. Conclusion

The strategy and design of this qualitative study intend to respond to the broader goal and objectives of the investigation. It was hoped that the study's findings would contribute to establishing a blueprint for digital transformation of learning and development business processes and practices, thus helping and guiding the process for change. Further, the knowledge gained from understanding factors for consideration when transitioning to digitalization and the resources and capabilities required to ensure preparedness to navigate the space will immensely contribute toward drafting strategy, planning, coordinating, and executing the digital transformation process of training and development. This was attained by drawing employees' perspectives on the phenomenon and the frameworks and practices employed for similar attempts.

CHAPTER 4: Data Presentation and Findings

4.1. Data Presentation

This Chapter presents and discusses the significant findings of the study on the acuities of employees of eThekweni Municipality about the transformation of the L&D business processes as well as systems to digital ways.

The study took an interpretivist approach to explore the employees' perceptions about the digitalization or digital transformation of L&D business processes and systems. Interpretivists believe that the correct way to obtain knowledge about the world is to explore the meanings that people attach to it. It is appreciated that knowledge is most valuable when it is in-depth and when it incorporates people's points of view. The study sought to reveal how employees viewed the transitioning process and the state of readiness of the L&D unit to change its business processes to digital.

Data was organised into codes, themes, and sub-themes to summarise sections of data in a suitable way that supports answering research questions and achieving the study's aim. Themes were created to capture and present the collected data easily.

This chapter comprises three sections. The first section presents the themes and subthemes as well as the coding of respondents. The second section provides an overview of where the L&D unit is located structurally within the municipality. The third section presents the findings of the study. The presentation of findings is organised based on the objectives and sub-questions of the study.

To recognize the viewpoints of the employees regarding the enhancement of L&D planning and delivery processes and systems through digitization, the study intended to answer the following research questions:

What are employees' perceptions around the digital transformation of learning and development business processes and practices to enhance the efficiency in the planning and delivery processes

of learning and development interventions within the eThekweni municipality of KwaZulu Natal Province in South Africa?

- a) What do employees perceive digital transformation to be in the context of learning and development within the municipality?
- b) What business aspects must be changed or digitally transformed to achieve learning and development business optimization and the intended goal?
- c) How can digital transformation be carried out by the learning and development unit to ensure that business processes and practices are streamlined and improved?
- d) What resources and capabilities are critical and required to enable the change and achieve the intended outcome?

4.2. Respondents Coding

Confidentiality and anonymity are paramount in a research study, so pseudonyms are an important consideration in qualitative research. Therefore, respondents were anonymized throughout the data presentation and analysis. For this section, numerical pseudonyms were employed. Numerical identifiers were chosen as they make reading easier and more appropriate. The researcher acknowledges that sometimes there are many other issues associated with the use of pseudonyms. For instance, if the data is from a small community of respondents, even the utmost care in selecting a pseudonym may not prevent a respondent from being identified, particularly about writing.

Thus, the respondents' background information contains their identity number as well as their role in the L&D environment to ensure proper data collection and the attainment of the research study objectives.

Table 1: Coding of Respondents

Description	Role
Respondent 01	Managing L&D planning
Respondent 02	L&D Implementation
Respondent 03	L&D End User
Respondent 04	Managing L&D implementation
Respondent 05	L&D Support
Respondent 06	L&D Coordination
Respondent 07	L&D End User
Respondent 08	L&D End User
Respondent 09	L&D Implementation
Respondent 10	L&D Implementation
Respondent 11	L&D End User
Respondent 12	L&D Support
Respondent 13	Managing L&D implementation
Respondent 14	L&D End User
Respondent 15	L&D Implementation
Respondent 16	Managing L&D planning

The study employed a purposive sampling approach, targeting at least twenty-three (23) municipality employees to participate in the research. Respondents included managers responsible for training implementation, managers responsible for the L&D planning processes, mainly the workplace skills plan, L&D implementing officials, ICT support management, and employees receiving training, i.e., end users. The sample was revised after submitting the proposal to the committee, which recommended reviewing the number of respondents and data collection tools. After the revision, the sample size was sealed at 17. However, the actual interviews were held with sixteen respondents, as reflected in the above Table 1.

Training management was interviewed from planning to execution, with two managers managing the L&D planning procedures and two managers responsible for plan implementation. One

manager from L&D planning was unable to attend due to unspecified circumstances. Participants in the study comprised five L&D implementers and a respondent responsible for L&D coordination. There were 5 end users and 2 responders who provided a supporting function to L&D, namely ICT and change management.

4.3. Themes and sub-themes description

The researcher employed inductive thematic coding, which is concept-driven coding. The approach saves time and helps guarantee that the significant areas the study intends to explore are coded. The researcher cautiously adopted this approach and ensured that additional areas were not missed.

Table 2: Themes and subthemes

Themes	Sub-themes
a) Interpretation of Digital Transformation	Understanding digital transformation in the context of L&D in the municipality
b) Scope or Factors of Digital Transformation	Basis for change
	Business aspects that need to be transformed digitally.
	Baseline assessment undertaken
c) Operationalising Digital Transformation	Digital transformation strategy or framework in place.
	Digital initiatives already in place
	Business unit structure or organisation
	Communication plan and engagements with stakeholders (customers, partners & others)
d) Digital Transformation Capabilities	Resources and capabilities available and required for successful transformation

e) Digital transformation Opportunities and Obstacles	Benefits of transitioning as well as potential challenges that can hinder the execution process
f) Change management for digital transformation	Change management role and process

4.4. Document review Strategic position of L&D Unit

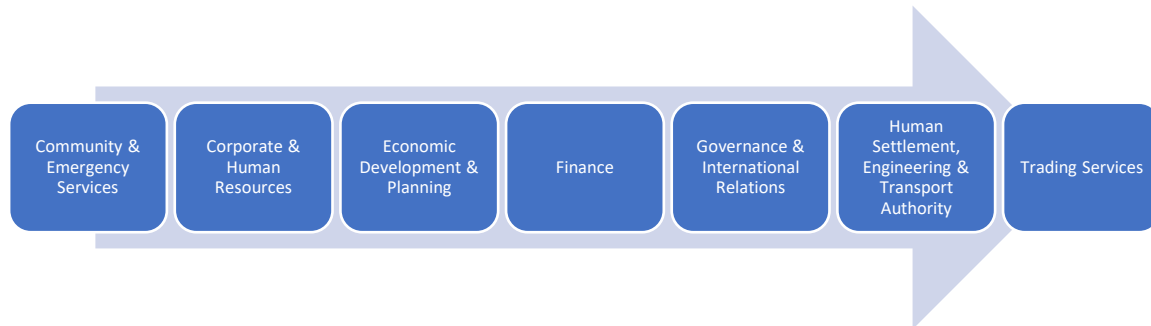
A synopsis of documents obtained from the municipality's website and strategic documents such as the Integrated Development Plan for the period of IDP (23/24) and a presentation on the list of digital skills, was conducted.

Table 4.3: Institutional Documents Reviewed

Documents
1. IDP five-year plan for 23/24 to 27/28
2. eThekwini Digital Government Strategy
3. Presentation on transitioning to 4IR
4. Learning & Development Unit Organogram
5. Learning & Development – Management Committee meeting notes (2020)
6. Change Management Terms of Reference
7. Municipal Workplace Skills Planning Guidelines 23/24

The case study was employed in the business unit entrusted with the L&D of the municipality's workforce. The municipality has staff complements estimated at 26,000. The business units are systematized into clusters according to their functions and operational purposes. The municipality consists of eight clusters, as illustrated below.

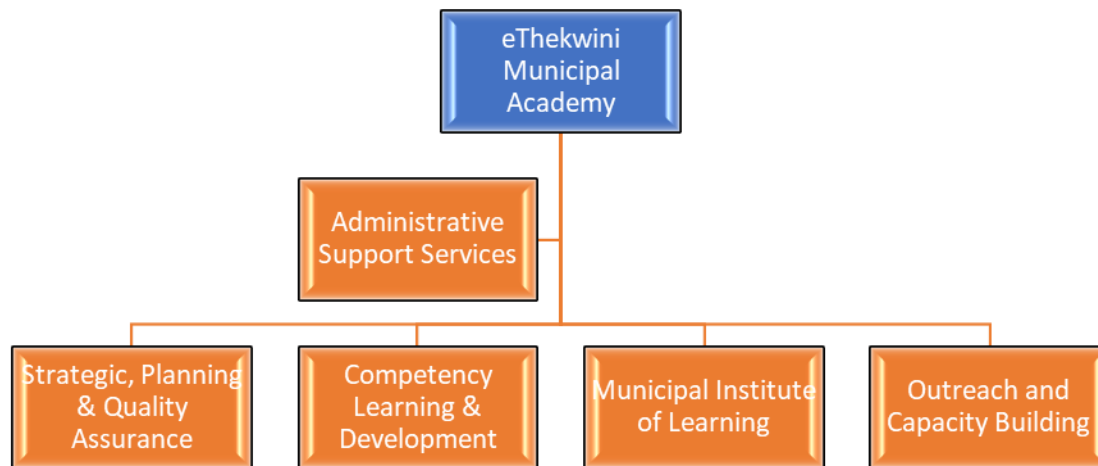
Figure 6: Business Clusters of the Municipality



The business unit responsible for L&D falls under the Corporate and Human Resources Cluster (CHRC) and is called the eThekweni Municipal Academy ‘Academy’. The CHRC contributes towards Plan 5 of the municipality’s IDP to support organisational design, human capital development, and management. The desired outcomes are efficient and effective organisational processes and productive human capital; empowered and capable human capital that can deliver effective and quality services to the public (IDP 22/23:574). The main goal of the Academy/ L&D unit is to promote eThekweni as a learning city that uses knowledge management techniques and processes to enhance the skills base of the workforce and empower its citizens. The case study will be referred to as an L&D unit for the study.

The L&D unit comprises five components, viz., i) Strategic Planning and Quality Assurance (SPQA) which is responsible for the regulation, compliance, research and development, planning & and quality assurance of learning and development interventions in the municipality; ii) Competency Learning and Development (CLD) which is responsible for the implementation of training, development and empowerment of the workforce; iii) Outreach and Capacity Building (OCB) which is responsible for the skills development and empowerment of citizens – individuals not in the employment of the municipality; iv) Municipal Institute of Learning (MILE) which is in charge of the institutional capacity building, knowledge management, promotion of relations between the municipality and the institutions of higher learning and finally; v) Administration Support Services being responsible for the overall administrative support services and management of training facilities.

Figure 7: The structure of the Learning and Development Unit (eThekweni Municipal Academy)



4.5. Interpretation of Digital Transformation in the L&D context

4.5.1. Employee's Understanding of Digital Transformation

Since the term “digital transformation” was coined, the concept has undergone several different interpretations, which are subjected to factors such as environmental context, individual worldview, applications, and so on. To direct this complex transformation, L&D must establish a common ground for everyone to understand the journey to be undertaken so that everyone can identify themselves in the process. This question is intended to gauge the participants’ comprehension of digitally transforming L&D business processes and systems.

At the municipal level digital is described as a new way of doing things (Digital Strategy Document). This view depicts a process-oriented definition rather than a tool. The emphasis is on the modern approaches to conducting business challenging and disrupting conventional practices through the use of technology to effect radical change.

Participants were asked whether they understood what digital transformation means, explaining it in the context of L&D in the municipality. The study revealed similarities in understanding the concept. Among participants, 9 respondents (1-6, 8,9,11) defined digital transformation as a shift towards the adoption of advancing technologies to deliver training products and services, changing traditional old ways of training, e.g., face-to-face, to employing modern technology to deliver

training online. Further, taking advantage of technology to enhance business processes, improve performance, and improve service delivery. The other thoughts are conducting training through online, computerized systems using digital devices and moving away from face-to-face as the traditional method of delivering training. There is an emphasis on changing how employees are developed and trained to align the delivery with technological trends to remain relevant.

Respondent 01 summarizes it as

“It’s all about technology, using current technology to make your work more efficient, liaise with clients more readily, and improve service delivery. Give clients what they want and avoid contact classes.”.

Respondent 02 confirmed by saying that:

“I believe it is transforming all of our procedures and digitizing them to expedite service delivery.”

Furthermore, a proportion of 31% of respondents perceive digital transformation as changing all business processes and digitizing them to speed up service delivery. For example, instead of using manual forms to book employees for training, scheduling and booking should be done through online platforms. 19% of respondents linked their understanding with the introduction of the fourth industrial revolution, which forced many organisations to transform business processes, modernised systems, and go online, allowing for flexibility, convenience, efficiency, and effectiveness.

Respondent 12 defines digital transformation in the context of L&D as

“In simple terms, it refers to the automation of learning and development processes, activities, and programmes. It is about moving away from doing things manually to automating them.”

Respondent 05 viewed it as

“For me digital transformation in the municipality would be to take advantage of the advancement of technological trends that are currently existing at this time in order to improve decision-making and the business processes that are currently in the municipality to improve performance.”

In addition, respondent 10 referred to it as

“Expanding learning and development to virtual instructional-led training and digital transformation, in short, known as VILT. Utilizing online platforms that allow for enhanced learning, which can live up to the same standards as instructor-led training, Thus, the main goal of digital transformation is to increase value through innovation, customer experience, and efficiency.”

The study found that participants grasped what digital transformation is all about and offered several practical instances, citing current practices, to back up their claims.

4.6. Purpose and Baseline Assessment for the Digital Transformation

4.6.1. Basis for digital transformation of L&D business processes and systems

Participants were asked to share their views on the rationale for digital transformation, to get an understanding of why it is necessary to transform learning and development business processes and systems to digital format.

The intention to consider transforming business processes is perceived in terms of many factors varying from globalisation forces, competitiveness, service delivery efficiency, enhancement of processes and others. The employees interviewed revealed that technological vicissitudes and trends placed more pressure globally, even on the government, to rethink the way they do business. With the global shift, most of the learning is done digitally, and therefore learning and development in the municipality cannot be left behind. The business unit is expected to service more than twenty-six thousand employees and reaching out to them to provide effective and efficient services can no longer be possible with the use of manual applications, processes, and practices.

Linked to the above ideology of digital globalization is the opportunity for the municipality to position itself globally, taking advantage of the opportunities brought by digital transformation. The example provided here was that the municipality can have international learning exchange seminars without going overboard to seek information. Knowledge exchange can happen anywhere where people are, facilitated virtually, which can boost municipal institutional knowledge and take it to a higher level. So, if this is the approach that the municipality is taking to become globally relevant and competitive, it means that even its L&D component needs to change how it does business and how it services its customers, internally or externally.

Respondent 05 confirmed by citing that

“We are no longer looking at our municipality in isolation from what is happening globally. So if that’s the approach we are taking, it means that the municipality, through its components, including L&D, must not stay behind when it comes to technological advancement for the city to get to respond to the needs that our people need today. In terms of service delivery, the municipality needs to look at the new ways in which things are done.”

The second rationale shared was for the municipality to keep up with societal technological advancements. Even internal systems and processes should be reconfigured and aligned to meet societal demands. This will ensure that the municipality meets its vision of becoming the most livable city by 2023.

The other reason provided for change was concerning the enhancement of service delivery to ensure that both internal and external customers are satisfied and that the means of service delivery are done efficiently and effectively. The emphasis was placed on the fact that the municipality should not be looked at in isolation from what is happening worldwide, on the continent, nationally, and provincially. One example shared was for the municipality to learn from other countries, such as Rwanda. The citation made about Rwanda was that many thought that it could recover from its state, through technology, the country has advanced in improving the services it delivers to citizens.

Some respondents felt that digital transformation was necessitated by external factors that were beyond the organisation’s control. An example provided is that the force for change emanated from the experiences and disruptions brought by COVID-19, which unexpectedly shifted the

municipality into business process modernization and adopted new practices to ensure business continuity. People had to learn new things quickly without being taught. There was a greater call for efficiency, enhanced productivity, and people learning to work remotely and being able to connect where they are despite all the challenges faced in the municipality.

The above insights are in agreement with the municipal Digital Strategy to leverage innovation and emerging technologies to drive public value. Respondent 5 perspective is consistent with this perspective as he associated digital transformation with taking advantage of technological trends.

An additional perspective given was the drive towards building a learning organisation and creating a digital culture that is not influenced by internal hierarchical structures alone. It is important to understand the influences of the Fourth Industrial Revolution, where most things are digitized and promote continuous learning. Thus, having the L&D business processes and offerings digitized, will enable the municipality's employees to have effective skills and knowledge and provide opportunities to upskill the workforce. Also, to accommodate employees of the 21st century who are techno-savvy and are more familiar with digital tools.

Therefore, keeping up with global change, which happens very quickly, is important for the municipality to be able to fit in with globalization. However, this requires everyone to first embrace change to keep up with rapidly changing, high-paced technology and ever-changing global digital trends. It is therefore important for the municipality to adapt to innovations, and this would help the business to improve to be more efficient and meet the needs of customers better.

4.6.2. L&D Business aspects or features that require change

The respondents expressed that the business unit entrusted with L&D in the municipality needs to change its traditional practices of planning and implementing L&D activities. The IT support official shared his insights that when the learning and development department or any organisation considers digital transformation, it needs to think about the business first, including the whole organisation before it can change and implement technology. Respondent 5 further cited that one needs to fine-tune the business processes and ensure that the business processes currently in use are going to lead towards the attainment of the broader objectives. The emphasis was that technology needs to come in when business processes are in order. This will enable the department

to understand and know what it is going to do with technology; only then can the technology be secured to best suit the business process.

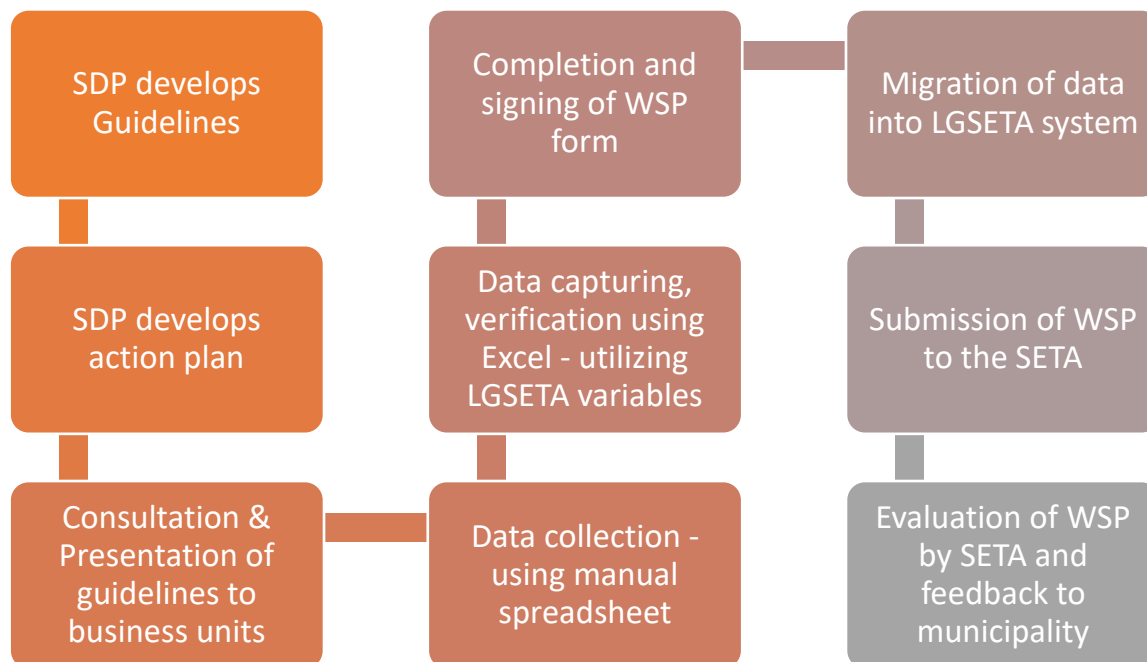
4.6.3. Training needs identification process

Training implementers and managers identified changes in practices associated with training needs identification where skills development practitioners still conduct physical roadshows as part of consultation and to advise employees of the training needs identification process. While the Skills Development Act requires municipalities to develop workplace skills plans and submit them to the appropriate Sector Education and Training Authority (SETA), doing so manually for more than 26,000 employees might be a time-consuming and costly exercise. An example provided by the manager of L&D planning is that the practice used by the skills development practitioners to collate L&D needs includes employees being issued with a template to fill out, indicating their training needs. The information on training required by the organisation is collated manually and captured on the Excel spreadsheet. This practice was cited by the manager responsible for L&D planning as one of the very old systems, which indicates how behind the business unit or department of L&D is in terms of meeting the demands of future digital. Even the entire information collated for the workplace skills plan (WSP) is done manually. The traditional or manual practice was flagged as time-consuming with a high potential for human errors, which often lead to inaccurate information, create potential financial issues, and could lead to compliance concerns.

Respondent 8 mentioned that:

“Reviewing our systems to make sure that we align them to the current technology is important.”

Figure 8: Workplace skills development planning process flow



Source: eThekweni Municipality WSP Guidelines (2023:7)

Figure 8 outlines the workplace skills development planning and compilation process followed by the Learning and Development unit, which demonstrates the steps undergone by the Skills Development Practitioners (SDPs). The activities of each step are carried out both physically and manually. In addition, the manager planning stated that even the Annual Training Report (ATR) is currently done manually due to the lack of an electronic system for a streamlined process.

4.6.4. Technological Resources as an enabler for training delivery

The second aspect identified for change is the infrastructure, i.e., technological tools such as desktop computers, which are not in sync with the digital modernization of L&D processes and practices. There is an insight that the municipality does not have adequate, proper infrastructure in place to support change, and it would be null and void to push transformation while basic technological tools are not in place. 50% of respondents emphasized the need for the municipality to invest in the relevant infrastructure and resources to support the transformation. One example

shared was the use of desktops, which pose limitations for learning to take place. Employees utilizing the desktops are unable to interact orally except through written conversation. This restricts learning as it becomes a one-way approach with no interactions or interfaces with learners. Due to this, the majority of trainers are reluctant to switch from contact sessions or face-to-face sessions to virtual sessions. At this point, the virtual sessions are limited to only 5% of municipal employees with laptops with access to the Internet, and the majority are at the management level. Another scenario shared was that the nature of the work of some employees allows them to work remotely, and they should be given the necessary technological tools that support remote work. Meanwhile, those who are office-based can be supported with office equipment because their job does not require them to have such tools.

4.6.5. Understanding own Business Process first

Respondents 2 and 5 shared that this transformation requires calculated thoughts about the business for the municipality first before individual business units can attempt to change their business processes and implement technology for any transformation. The L&D department needs to undertake research from fellow organisations to establish what business processes are needed and linked to organisational broader objectives and which are feasible to change.

4.6.6. Leadership and management support

38% of respondents felt that for transformation to happen, it requires municipal management, leadership buy-in, and a change of mindset. Many projects fail within the municipality because of a lack of drive from the leadership. The participant who is the manager of the IT supporting L&D unit shared the importance of getting the municipality's affairs in order in terms of business processes. He gave an example that, looking at how decisions are made in the municipality, even with the L&D, it is very difficult to decide if the department does not have information at its disposal. Leadership needs to move quicker as the municipality is thriving to be a data-driven decision-making municipality. So, there must be a political and administrative will to make informed decisions supporting digital transformation. Further, digital transformation also requires employees to change, embrace it, and not resist. According to Respondent 13, the entire

governance and leadership culture at the highest level needs to transform to accept and accommodate changes.

Further Respondent 10 confirmed by saying that

“The involvement and support by top management for the digital transformation to be driven from the top and be successful. Also, for them to have a common understanding of what digital transformation means and entails”.

An additional insight shared by Respondent 1 was that management or leadership needs to think of rewarding employees for implementing digital transformation. She mentioned that “giving people incentives and support will encourage them to change”.

Respondent 5 supported the notion of leadership driving the transformation by saying that

“Without management buy-in, it will be difficult to achieve this digital transformation. However, we too need to ensure that when we present these technological trends and the benefits of digital transformation, we do not use technological terms that are very difficult for our management to comprehend”.

4.6.7. Reskilling and upskilling of employees

Respondent 3 indicated that digital transformation assumes that the educational state of individuals is at the same level, i.e., employees have digital literacy to some extent. So, it becomes difficult from the L&D perspective to pinpoint a singular thing and what exactly should change because it goes way back and is one of the hindrances from the past to fully embrace digital transformation. An additional insight was shared by Respondent 6 that, apart from resources, trainers need to be upskilled or upgrade their skills. She further indicated that there is a need for upskilling employees to understand digital transformation, “I think the municipality is expecting trainers to train employees on digital, but trainers themselves are not well capacitated.”

4.6.8. Policies alignment to digital change

Alignment of policies was also highlighted as an area that requires attention to ensure that it responds to the digital transition.

Respondent 7 emphasizes the importance of alignment or review of policies. He reflects that if the academy needs to transition towards digitalization, it needs to make sure that it is moving with everyone. Further emphasis was placed on reviewing its staff development policies in alignment with the organisational policies and ensuring that they are in sync with the changes it wants to make. The example given is that the L&D unit has the staff-assisted education policy and all the other policies that talk about learning and development, but the question is, are these policies aligned with the latest technology of digitalization? Another example linked to organisational policies is that the municipality's Information Management Unit (IMU) still has policies in favour of certain positions at higher levels that restrict the allocation of laptops and access to internet connectivity to those positions only. Not everyone has access to laptops and connectivity and can utilize Microsoft Teams for meetings or to attend training online. At some stage, you find people connecting to a meeting using a desktop. Desktop was mentioned to be restrictive and does not allow for active interaction, which is not effective as one cannot respond. So, the question is, how will L&D be transformed if organisational policies are still stagnant?

4.6.9. Learning Programmes and Courses Offered internally

50% of respondents felt that the learning programmes or training courses offered by the L&D unit are outdated and need to be reviewed. The respondents shared that L&D is the component entrusted to lead in learning and development, advocating for digital transformation, and training employees on the municipality's transitional process and technological practices. The respondents' views agree with Ngubane (2020) presentation calling for a change in learning programmes to adopt courses that are aligned with the Fourth Industrial Revolution. Ngubane (2020) proposed soft skills programmes on creating thinking, systems thinking, critical thinking, people management, service orientation, virtual collaborations, eProject management, emotional and social intelligence, and complex problem solving as more relevant to help employees in this digital age. However, the unit is perceived to be far behind with transformation as it is slugging in the process of delivering

training, and more concerning are the courses offered which were viewed as no longer needed by the organisation. The expectation is for L&D to introduce courses that will help the municipality transition smoothly and cope with the demand brought by the digital transformation. Training courses must change; even the training manuals used must be changed as well. The example given was that the L&D still offers basic computer literacy, which is mostly an introduction to the use of computers and is no longer relevant in this digital age, the majority of people employed by the municipality are graduates and have exposure to cellular phones and smartphones. At the very least, the L&D unit should introduce valuable learning programmes, such as digital literacy, how to fully utilise Microsoft Teams, and electronic document management for employees to keep up with the modernisation process. Other business units within the municipality were mentioned to use SharePoint, Cloud, and a variety of other technologies, and these are the courses that the L&D unit should be facilitating.

4.6.10. Changing Methods of Training Delivery

62% of respondents felt that the classroom setup approach to delivering training needed to change. Employees can access L&D from the comfort of their offices. Contact sessions need to be changed.

Respondent 11 shared that

“People can learn in the comfort zone of their homes using their systems. As we are talking, we could be teaching one another; there is no need to go and attend at the university or on the premises of the service provided.”

According to Respondent 10, senior management from L&D needs to buy in and drive this transition by setting up the learning centres in the buildings where offices are to enable employees without access to necessary technological tools and internet connectivity to use them and be able to connect with other people who are in other regions where the instructor is in another range and continue the eLearning process where they are and still be able to contribute in a live session without having to be transported across the city. Flexibility is necessary, said Respondent 13, to allow staff to be able to learn from home during working hours and not necessarily need to report to an office environment to do this. Staff need to be equipped with the correct tools, like laptops and data. Respondent 16 shared the positive impact brought by the introduction of Microsoft

Teams. She cited that the introduction of virtual learning paved the way for staff attendance, which makes business operations more viable and sustainable. With this intervention, many staff attended the online programme, and the number of attendees at these sessions increased tremendously.

Involvement of change management Unit (ODCM)

44% of respondents advised of the importance of including change management processes. The suggestion was linked to the fact that when employees are used to the old ways of doing things, they might take time to adapt to changes, and possible resistance could be experienced.

Respondent 12 further supported the consideration of change management by saying:

“An organisational readiness assessment needs to be done before determining the state of readiness to transform. The inclusion of change management, risk, and IT teams from the beginning is crucial. Establishment of the governance structure to drive the change.”

25% of respondents advocated for an ecosystem approach to encourage collaboration and partnerships between internal and external stakeholders to assist the municipality in its journey toward digital transformation. In addition, there was advice on the change management framework, which governs the implementation of change in the municipality when new projects or systems are initiated. The framework is used to mitigate resistance, change mindsets, and monitor how work is carried out, ensuring that it does not affect individuals. Respondent 11 shared insights that 75% of employees in the municipality still comprise people who still believe in the old ways of doing things rather than technologically. Thus, the resistance management plan would play a crucial role if developed to assist in the process.

4.7. Digital Transformation Baseline Assessment

19% of respondents shared that the leader of the L&D unit undertook desktop research; however, the study was limited to courses offered in the fourth Industrial Revolution era. 81% of respondents

mentioned that they are not aware of any assessment done to determine the need for change and what exactly could be changed. The citation was supported by the IT support manager as he could not confirm that there had been any research done before. However, given that the municipality is using electronic revenue payment (ERP) systems such as budget, JDE, and RMS, those ERP systems could only be implemented based on the business process assessments conducted by the municipality. Therefore, one can deduce that, to the extent that anyone who ever developed these ERP systems demonstrated that the municipality researched to determine the need. This might not cover the entire municipality, but business processes have already been digitized (Respondent 05). Respondent 12 emphasized the importance of organisational readiness assessment and that it needs to be done before embarking on the digital transformation of business processes.

Thus, advocating modernization of L&D in line with the principles of the fourth industrial revolution requires a baseline assessment to determine the state of municipal preparedness, and it also requires change management to play a role in influencing individual business units within the municipality to change.

4.8. Operationalising Learning & Development Digital transformation

4.8.1. Digital transformation strategy or framework in place

There seemed to be a general view that many employees are not aware of whether the municipality has a strategy or not. 81% of respondents responded that they are not aware of any strategy or policy in place guiding business units to transition. They also felt that there was a need for an integrated strategy to be in place. It was shared that the municipality should consider having an overarching strategy so that everyone within the municipality draws from it rather than having an individualized one. This would also ensure uniformity in guiding how the municipality will approach this new 4IR era when it comes to the digitisation of training and development.

Respondent 2 supported the citation that the lack of strategy poses a challenge to the L&D unit in that now the business unit does not have a clear direction and if there was a strategy, as no one has

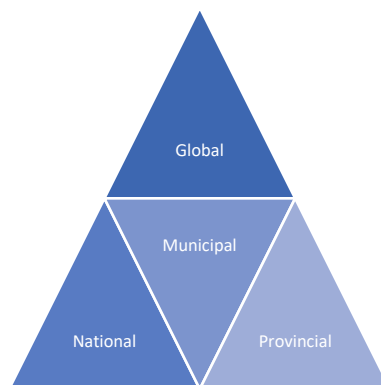
seen or heard about it, unless it is stored somewhere, it would serve better to guide the transition process.

However, 19% of the respondents shared a different view in that the municipality established an office that is led by the Chief Digital Officer (CDO) to ensure that the municipality responds to the demands of the digital era. The mandate of the CDO is to develop the digital strategy, known as the Smart City Strategy, and to ensure that the municipality fast-tracks the digital transformation initiatives internally and externally.

Respondent 5 supported the existence of the strategy by saying that

“In line with the IDP (22/23), the municipality adopted a strategic direction to ensure that it becomes more responsive, effective, and accountable to its citizens. Similarly, its digital strategy is underpinned by strategic global, national, and provincial policies. So the municipality endeavours to achieve closer alignment of strategic attempts such as digital transformation within the context of international, national, provincial, and local digital transformation frameworks or policies.”

Figure 9: Municipal Strategic View



Respondent 05 elaborated that each business unit currently develops its own digital business processes to address individual business needs. Further, it is only now that the municipality is looking into the centralization of digital initiatives.

While respondent 10 also added that a multi-approach looking at the whole municipality as an ecosystem would require any strategy to prioritize internal processes, systems, and practices. This

would need to be led and driven by the three municipal units to strengthen the case. It would need organisational development and change management (ODCM) as the municipality's think tank to help us draft out the challenges of the future. Secondly, Corporate Human Capital (CHC), from the human capital management aspect, can assist in determining what would be needed to prepare employees for the current and future digital world. What should they look like? What would their capabilities and skills be? Adding was that this aspect should consider the medium- to long-term incorporation of high-learning institutions. The third component is the information management unit (IMU), which includes the office of Chief Digital to assist with issues of technological infrastructure. Licensing will be very important.

4.8.2. Digital Initiatives Already Implemented

The process of change toward the modernization of business processes at the municipal level was confirmed by the majority of the interview participants. 56% of respondents directly involved with training confirmed that the process for change started two years ago around digitization and 4IR, but not much has improved. There is a lack of flexibility, especially in the training implementation section. The example cited is that when there is a high demand for training, the section mostly poses constraints regarding the capacity to train. Thus, the change is very slow, as the L&D unit takes small steps to get there.

25% of the respondents indicated that the municipality, through its wing of the information management unit, is rolling out workplace modernization, whereby it will assist employees in working anywhere, whether at home or not, and still being able to access information. Currently, the municipality uses Microsoft Teams, a Microsoft technology called Office 365, and is busy rolling out one drive so that the information can follow employees wherever they are. Even if individuals use a mobile phone and there is a file to retrieve, they don't have to open laptops and can share it with whoever they want. Further, Wi-Fi hot spots have been rolled out to enable citizens to access e-government services and communicate with the municipality anytime.

Microsoft Teams is also utilized for online human capital procedures and systems like leave applications, payslip reviews, performance management, online recruitment, and collaborations.

Also, for virtual meetings. Despite a shift towards modernizing some business processes, 19% of respondents thought that this was not extended to everyone in the municipality, and access to some of the applications was restricted to personnel at the managerial level.

Further to the digital systems in place, SharePoint, which is considered essential for document management and collaborations; e-signature; and Oracle are also in place. Oracle software will assist in terms of customer service because the municipality is attempting to modify the customer service applications that are currently in use. Oracle is anticipated to replace all the traditional systems that are being used, particularly those used by business divisions such as Sizakala customer service centres. Mobile apps for communities to access municipal services and be able to make payments, as well as a WhatsApp line for business and service delivery interactions.

48% of L&D end users and implementers acknowledged the modernization of business processes at the organisational level, however, noted that not everyone is at the same level and that there is a lack of monitoring of the implementation. Individual business units within the municipality are developing their systems. There is no overarching system from which all other systems emerge. Executives, for example, were introduced to electronic signatures but very few use the technology. As a result, numerous modernized applications have been introduced in a non-systematic manner.

Respondent 5 affirmed that

“It has been observed that in most situations, technologically enhanced efforts with best intentions are ruined, delayed, or eventually cancelled because employees, communication, awareness, processes, and technology were not aligned from the start. It becomes very important to align and properly coordinate all organisational elements, such as end users, clients, processes, and technology, to ensure the success of the transition.”

4.8.3. L&D unit organisation or structural support for digital transformation

Organisation is critical during the change process. True, systems, processes, workflow, and culture are all components of this process. Organisational structures can help drive the acceptance and

adoption of change initiatives. It makes it easier to stay focused on the goals at hand. can contribute to the acceptability and adoption of change initiatives.

When asked about structural or organisational support for digital transformation, 81% of respondents said there is no organisational mechanism to drive the L&D digital transformation process. If there is, no one likely knows about it and, probably, it is not functional. According to 69% of respondents, the present L&D organogram, even the structure of the IMU which provides technological support to the entire municipality, is not in synch with the technological innovation and development taking place. There is a better recognition that there is still more work to be done in this area. Respondent 5 acknowledged that, given the rate at which technology is advancing, the IMU can no longer succeed with the framework that is already in place; it needs to be reviewed. The IMU unit needs to change and move with the times, as it is no longer a support function only but an enabler and thus needs to enable businesses to do their work smarter and better.

Another shared reflection by 19% of the respondents was the integration of IMU and CDO functions. To have a single enterprise system for the whole organisation, because of the size of the municipality, with plus or minus 28,000 employees. Further, for L&D to succeed, it will need to revise its structure to have a component that could be called L&D technical support to drive and champion the digital transformation and provide technical support to users. Persons entrusted with the L&D digital transformation should be assisted, empowered, and supported by the top management and given a clear mandate. A learning systems manager plays a vital role, in driving the process and developing policies, working with all departments, and everybody needs to follow the policies. At this moment, there is no such role or assigned responsibility.

94% of respondents felt that both organisational and business unit organograms should be revised to best suit the current and future demands of the digitally evolving organisation. Respondent 11 added that the digitalization of the municipality should be in sync with the digitalization of other spheres of government as well. Perhaps the municipality and units should structure themselves to align with structures in existence within the District Development Model (DDM) space.

4.8.4. Communication plan and Stakeholder engagements & Consultation (customers, partners & other)

In their participation in sharing their perspectives on how changes brought by L&D digital transformation are or could be communicated, 63% of respondents cited that any change requires a communication plan. The plan would assist the L&D in establishing what information to communicate with whom, when, and how. The respondents from L&D indicated that, at this point, according to their understanding, there is no communication plan. The leader of the L&D service unit utilizes platforms such as management meetings to determine progress on the transition. 56% of respondents recommended that the L&D needs to utilize various modes of communication, such as roadshows, workshops, and social media platforms approved by the municipality, to create awareness and educate employees, preparing them for change. A new structural model

4.9. Digital Transformation Capabilities & Resources

4.9.1. Resources and Capabilities Required

The findings revealed that human, financial, and technological resources play a vital role in the digital transformation. Lack of appropriate technological resources poses a high risk to the project. 81% acknowledged the efforts put in by the municipality in the provision of laptops as well as data for connectivity; however, it was felt that this was not adequate as the policies still support certain levels and not others. Trainers were reported not to have updated laptops with adequate capacity to enable them to deliver training. They are still using a very old software version, and their performance is very slow. In addition to laptops, the L&D unit requires modernized projectors and improved physical venues for training, which are in poor condition at this point. A consideration for digital tools such as laptops, gadgets, software packages, and proper network systems was emphasized, including adequate data allocation for trainers.

In terms of capabilities, 69% of respondents confirmed that the L&D unit has adequate trainers however, they need to be reskilled or upskilled to conform to digital training delivery styles. It was further emphasized that learning new technology and providing support to train end users or customers are important. The current approach supports the traditional methods of delivering L&D, however, it does not work well with modernised digital practices and can no longer take the unit or even the organisation forward. For example, the skills employees have had for a long time

can no longer support the current business needs and demands, so trainers and IT support need to have a new set of different skills that are harmonized with the current trend.

Another finding was the appreciation of respondents that trainers still utilize old training manuals and even information shared is no longer relevant to current corporate developments. This has discouraged many employees as they felt that there are no changes in the current courses even though the content is still outdated and does not contribute to the advancement of organisational change.

The other aspect of the finding was the significance of financial resources. The municipality and the L&D unit, according to 51% of respondents, need to invest in the transformation. It was discovered that the L&D unit needs to allocate a budget to implement the project properly and digitally migrate its business processes.

4.10. Opportunities and Obstacles to Digital Transformation of L&D business processes and systems

4.10.1. Benefits or Drivers of Change and Potential Obstacles

While many organisations adopt digital business processes to align themselves with global trends to remain competitive, the decision to modernise is influenced by many factors that may or may not be valued. A question exploring the benefits and limitations perceived by L&D officials as well as the recipients of learning and development services was asked. The respondents (L&D managers, implementers, and users) believed that introducing technology tools and modernizing business processes would improve the L&D unit's functioning and service efficiency. Furthermore, this shift will ensure that the unit remains competitive and does not fall behind as technology advances.

Respondent 1 confirmed that

“The digital transformation will allow the L&D unit to function like a proper training institution, with less downtime; if reports are required, they can be obtained quickly and accurately. Training attendance will improve, messages inviting individuals to attend will be sent on time; employees will begin to take training seriously and their interest will grow.”

Respondent 6 also supported in that

“So, I believe that in the training space, attendance can improve, you won’t have a situation where people are late and blame everything on transportation. Meetings and training can be conducted on a virtual platform.”

Another advantage mentioned was the ability for employees to learn remotely at their own pace and time. This act will reduce the amount of time spent attending physical sessions, the inconveniences caused by transportation, and the cost associated with the movement.

Respondent 8 supported this by saying

“If the unit shifts to online learning, it will make things easier because courses can be completed in your spare time, you can access them even afar and study at your own pace. This will make things much easier, allowing individuals to focus on servicing their clients while still learning online. Perhaps doing training online will be less expensive, implying that the unit is ready.”

Respondent 9 confirmed by saying

“The second is the issue of accessibility, which is crucial now since it allows individual learners to learn at their own pace, in their environment, and utilizing various forms of medium. Because people are active in a variety of activities to ensure business continuity. So, it provides individuals with the flexibility to learn and makes them willing to improve their situations and development without the constraints of being in one spot at a given time.”

Respondents also expressed appreciation for the digital transformation as an enabler for connecting individuals from different parts of the world, which allows the municipality to participate

worldwide and remain competitive. Another frame of view was related to performance enhancement.

Digitalising L&D business processes was also perceived to encourage collaborations with other stakeholders in the learning and development environment and inspire the creation of a digital culture.

Thus Respondent 16 summarizes benefits in three points in transforming L&D business processes will assist in embracing communicative platforms and alignment with best practices strategy; saving time so that other tasks can also be done timely alleviating travelling time/accidents etc.; and lastly being cost effective.

While the majority of respondents recognize the advantages of digitizing L&D business processes and systems, Respondent 05 cautions that *"L&D staff, especially facilitators and managers of training, need to undergo training as well so that they can be able to maintain the transition but also should not go alone but with others to realize benefits of this technological advancement which comes at a high cost."*

There were also thoughts shared about potential challenges that the L&D should be aware of and should put mitigating measures in place to deal with. The current challenges include a lack of financial resources to ensure that employees have suitable tools of the trade to perform and attend learning and development programmes. Secondly, attending online learning programmes in open-plan offices creates significant difficulty in terms of workplace noise and disturbances. Thirdly, the country is experiencing load-shedding difficulties, slowing down connectivity, negatively impacting e-learning platforms, and disrupting the flow and continuance of training and learning. Furthermore, major network issues continue to plague the workplace as critical information can be lost during meetings.

Another factor is that the municipality must begin investing in these innovations and assist units with the transition. The stated support was the investment in technology infrastructure and budget allocation for the success of the transformation. Another concern 50% of respondents identified was employees' reluctance to change, particularly those who had been with the municipality for many years.

The issue of resistance to change is supported by respondent 12 by sharing that “resistance for change as people are used to old ways of doing things”

Furthermore, respondent 13 stated that

“Human resource preparation will be the determining factor in ensuring that digital transformation of L&D business processes is well embraced and supported. The provision of resources will necessitate the anticipated changes to be implemented effectively.”

As an area of concern, ignorance, lack of understanding, and leadership support in leading and guiding transformational intent were mentioned. Supported by respondent 11 in that when it comes to digital transformation, leaders are found to be the ones that are falling behind. They still believe in employees sending written notes or filling out manual leave forms, so if you are missing from work, for example, or sending someone to report you.

To embrace change or create a space to learn new things, one needs to unlearn certain things that might hinder new learning. Respondent 9 warned that the L&D will have to unlearn some practices that it has been doing, which will be difficult. It has been observed that people sometimes try to avoid digital technologies in the corporate environment and make excuses because they were not taught about it. Secondly, employees from the receiving end may resist change because they have developed their comfort zones in terms of their workspace to decolonize learning and development.

Participants proposed that incentives be considered to address the issue of resistance, especially if it concerns the L&D implementers and management. People sometimes need to be rewarded and encouraged to embrace and advocate for change. However, Respondent 1 on the other hand, stated that it would be difficult to incentivize employees because the municipality is struggling financially, and employees have not received their performance bonuses for the previous two years.

4.11. Change Management

Respondents (2, 5, 8, 9 & 12) emphasized the involvement of change management. Change management was cited as a critical component to assist in facilitating the transition of individuals and the municipality. It was also shared that getting people to change is not easy, especially when the change originates from the top. Therefore, change management was supported to ensure that there are measures in place to support and promote readiness for change. It was further revealed that some within the municipality seem to ignore the role of change management in bigger projects. Whereas change management can assist in determining whether the L&D has sufficient capacity, time, financial, technology tools and other factors such as structure necessary to implement change.

Respondent 2 mentioned that

“The actual change is not a challenge, but people are a challenge. So, it is important to factor in change management to advocate for change and get the buy-in of employees.”

Respondent 8 agreed with Respondent 2 that transforming learning business processes will call for more change management processes because the majority of employees are used to the old ways of doing things. Most employees take their time adapting to changes.

4.12. Conclusion

The findings demonstrated a clear awareness of the digital transformation in the context of municipal employees' training and development. Their broad and common understanding clearly described the conversion of traditional training techniques to digital, eLearning or virtual methods for training facilitation leveraging technological innovation. The rationale for transition is associated with global competitiveness and alignment to technological advancement to enhance performance efficiency, productivity, and customer satisfaction in the delivery of training and developmental programmes in the municipality.

The investigation also revealed areas that the L&D unit should consider modernising its business processes, systems and practices, i.e., outlining what needs to change. While there was an

acknowledgment of not being aware of the municipality's digital strategy that guides the individual units in their endeavor to digitize its business processes, at least very few were aware of the strategy. The fact that the strategy is in existence but unknown to the majority of participants raised concerns, which were exacerbated by a lack of direction on how to approach the transformation. Additionally, it was found that the execution was hampered by a lack of direction, leadership drive, resources and competencies, including financial, human and technological tools and infrastructure. Therefore, the incorporation of a change management strategy is very important.

CHAPTER 5: Discussions of the Results

5.1. Introduction

This study aimed to investigate the perceptions of the municipality's employees and understand areas of focus towards the digital transformation of learning and development business processes and systems. The determination was to understand if L&D employees were clear about what, why, and how, responding to the executives' call to transform business processes and systems. The inquiry involved developing four questions to guide the study. The focus of research questions entails exploring the interpretation of the digital transformation in the context of the L&D environment within the municipality; understanding the rationale for change, how digital transformation operationalisation is viewed by those responsible and the recipients of L&D and assessing the state of capabilities necessitating the transition.

A total of 16 employees in different functional areas and levels within the context of learning development (planning, implementation, coordination, technical & and advisory support, and recipients) were interviewed in the municipality. The literature review was conducted to provide a baseline and help provide clarity and answers in some areas, however, interviews helped in validating the framework claims.

The literature confirmed the growing interest in research relating to the adoption of digital transformation by South African municipalities as a means of addressing legacy service delivery challenges to prepare them for the future (Hofisi & Chigova, 2023). Nciweni, Matsilele, & Abrahams (2023) assessed the role of digital transformation in communication to boost service delivery; Govender & Reddy (2019) looked at the effectiveness of governance towards digitalisation; Nzimakwe (2021) focused on leading digital transformation and innovation in local government; and Sibiya (2012) investigated the digital transformation of Cities through emerging industry 4.0 smart technologies and infrastructure. This suggests that there has been stride made by municipalities responding to digital transformation to align their operational processes and systems to technology and add value to their products and services. The migration to modernizing business processes is supported by the national and provincial regulatory and strategic frames.

The literature provides a digital ready and execution framework guiding any organisation intending to change its business processes—further advocates for any institutions considering migrating to streamline and for added value to have blueprints. The digital readiness framework suggests that organisations conduct an assessment, develop a strategy, establish initiatives, and organize business solutions. The inclusion of leadership takes a lead in all steps to support the transformation is emphasised as well as setting clear targets systematizing and prioritizing activities, establishing a governance structure and preparedness to invest in resources.

The findings revealed that, while there are digital initiatives in the municipality the extent to which the assessment was conducted to determine the digital needs of individual business units within the municipality is still not clear. The study found that the municipality has a digital strategy that links up with the provincial as well as the national digital strategy. At the municipal level, there is a digital and IT committee that oversees the rollout of digital initiatives. The strategy provides for individual business units in the municipality to develop their digital blueprints to ensure necessary digital migration. Notwithstanding the established strategy and the governance structure, the study found that the knowledge of their existence and visibility and functionality of the structure coordinating digital initiatives remain a concern, especially to learning and development employees who are presumed and expected to contribute immensely to educating and raising awareness across the municipality. Therefore, the coordination of such digital initiatives and solutions still requires improvement.

The theoretical framework from which the study premised suggests that the execution of digital transformation must consider the following elements: understanding the markets in terms of products and services and how services will be delivered to customers; operations that consider opportunities brought by migrations for value-added products and services; approaches to stakeholder or customer engagement and communication on changes as well as organizing self in terms of the structure to support the transition.

5.2. Themes emerging from the study

5.2.1 Interpretation of Digital Transformation in the L&D environment

The first research question intended to determine whether employees understood the digital transformation in the context of learning and development in the municipality.

The findings revealed that the concept of digital transformation is quite subjective because it is influenced by environmental circumstances, which means that it is better understood in the context in which it is employed. The research agrees with Russell, O'Raghallaigh, O'Reilly, & Hayes (2018) when they mention that there is no accord on the connotation of digital transformation in academic circles. This means is no single precise definition of digital transformation. Most respondents shared similarities in the interpretation of digital transformation in the context of L&D in the municipality which was described as the use of digital technology to change the way learning and development activities are done and delivered to customers. Shift towards the adoption of advanced technologies to deliver training products and services. This encompasses reconstruction, streamlining and standardising major business processes, systems and change in municipal culture to optimise and simplify L&D functions. Furthermore, to enhance and create new experiences for recipients of training, new opportunities for innovations in empowerment and capability upgrading.

This thus indicates that digital transformation is more than the introduction of technology it integrates several notions as described by Ndemo & Weiss (2017) in that digital transformation captures the notion of interconnectedness of several factors such as societal and business alterations, potentiality carried by technology and creativity, a paradigm shift of capabilities and carries uncertainty to outcomes. In simple terms, digital transformation was perceived as the notion of adopting technological systems rather than traditional manual and physical practices to deliver training to employees in the municipality and approaches that are globally, nationally and locally inclined. The researcher concurred with Kayikci (2018) and Lozic (2019) that the principle of digital transformation relates to the process of using digital technologies to modernise or modify existing business processes, promoting a new culture and customer experiences. One can deduce that given the complexity and diverse nature of the municipality transforming L&D businesses could simply mean the conversion of current practices to adopting eLearning, virtual or online

learning to boost access, efficiency and effectiveness in the delivery of training. Therefore, employees understood accurately what digital transformation entails in the context of L&D in the municipality.

5.2.2 Scoping and L&D Features for Digital transformation

The second research question intended to understand the business context and drivers for change to effectively execute digital transformation. It is concerned with assessing viewpoints on the rationale to change, whether the baseline was undertaken to inform change which would be significant in portraying the state at which the L&D is at to transcend, and features that would be considered for change. The responses would assist in giving perspective around the state of readiness.

Responding to the question about the basis for transitioning, the majority of respondents believe that the intention to transition to digital processes is attributed to several factors such as alignment and remaining competitive both globally and nationally, new opportunities, and service delivery enhancement. The perceived competitiveness positions the municipality in the global market and experiences. The L&D in the municipality provides and fosters platforms for individual business units to participate in learning exchange initiatives with international organisations either to enhance service delivery or explore best practices. For the L&D to maintain its participation and position, it has to respond to global, continental, and national agendas about learning and development activities through digital transformation. The findings established a sense of familiarity that is consistent with the global, continental, and national institutional learning and knowledge exchange practices. For, example, it is no longer compulsory for municipality's employees to attend international knowledge exchange sessions physically, employees can participate virtually. While seminars and learning exchanges are now done virtually, the L&D unit is seen playing a critical role in the promotion of a culture of eLearning in the municipality.

Other thoughts shared were aligned with the municipality placing itself as the smart and learning city. This compels the municipality to support internal transformation by putting in place digital systems to enhance service delivery efficiency for customers thus achieving citizen satisfaction. Therefore, the L&D unit should follow suit transitioning to digital transformation formats promoting the municipality as a learning organisation and contributing towards the creation of a digital culture amongst employees and across the municipality. The finding also revealed that with this transformation employees' expectations will change, new training needs will emerge, and the methods of training delivery will also advance. The L&D timing was considered important given that it has a huge mandate of empowering the municipality's workforce which is estimated at 26 000.

The importance of the business unit rethinking the way it does business to remain relevant and appropriate to its customers could not be emphasized. This suggested that L&D needed to redefine and remodel its processes and systems to deliver necessary learning and empowerment programmes to employees. The business unit cannot survive if it continues with the traditional manual and physical practices in planning, delivering and administration of training and development in the municipality. Digital transformation has the potential to significantly impact L&D operability and service delivery. Integration of engineered solutions will take care of the training and development value chain processes cycle.

The value proposition contains new opportunities in the training features such as product offerings, approaches, automation of training needs analysis, electronic planning and scheduling, online registration and attendance register administration and other developmental services rendered to customers. However, the L&D value proposition should talk to the target market employees of the municipality as well as targeted citizens to engrain digital best practices that will maintain competitiveness. For example, employees who need efficient forms of training do not have to gather physically in one place or travel far to attend courses. Digital formats of learning allow users to participate and collaborate in training flexibly, at their own pace and time.

Furthermore, there are opportunities for adopting digitally advanced and innovative approaches to enhance L&D performance, integration, seamless processes, efficiency, flexibility, agility, product regeneration, and process improvement. Efficiency involves streamlining, standardizing, and reforming business operations to obtain internal and external attractiveness. Flexibility is an important key to meeting the business unit's goals during the business process and technical transformation. The agility goes hand in hand with flexibility. Despite the nature of changes needed the L&D needs to act fast. The speed at which the digital transformation fluctuates requires rapid and efficient change processes necessitating viability and success. Thus, agility ensures transformation readiness. The findings are consistent with Ammon, Ertlmaier, Etzion, Kofman, and Paulus (2010) in appreciating that in a corporate setting, business processes must become agile, respond timely to changes, and adapt quickly to new conditions. Digitally transformed processes and systems could enhance L&D efficiency in delivering and facilitating skills, and knowledge and increase performance.

While the positivity of the rationale is appreciated findings warned of the transformation and migration to new systems being complex and requiring change management interventions. Change management according to AlManei, Salonitis, & Tsinopoulos (2018) should accommodate auditing of the current situation. In establishing whether there has been any baseline assessment conducted either at the municipal or L&D unit level to inform the digital transformation process, respondents were not aware of any assessment done. Digital Orchestra (DO) framework proposes going to the market which entails understanding the business and responding to questions of what and how. To support the importance of assessment Saarikko, Westergren, & Blomquist (2020) agree that the digital transformation journey requires assessing what is in existence and determining the gaps to understand the detailed change.

The importance of baseline assessment is echoed by Henry (2019) in that understanding what are the current discomfort points, challenges, opportunities, or goals that the project aims to address is very important. That is, how would the project align with the business strategy, vision, and values? Who are the key stakeholders, customers, and users involved or affected by the project? What are their needs, expectations, and preferences? How will the project impact the business processes, culture, and organisation? He further cites that by responding to these questions a clear and shared understanding of the drive and scope can be recognised.

The study finds that a focused assessment approach to identifying features of niche focal areas for L&D is necessary to ensure that reconfigured processes, services and training interventions are appropriate and respond to need areas and broader goals of the business unit. In the complex environment of the municipality transparency in business process change is crucial. The findings revealed that changes are required in the approach and methods necessary for planning and implementation processes for training initiatives in the municipality. These include integration of planning and execution, review of programmes offered, adoption of new technology tools, involvement of leadership and management and consideration of change management inclusion in the transformation process.

Ensuring alignment of policies was another important area of consideration. Internal policies that regulate the allocation and accessibility of technology tools were an area of concern. Findings discovered that the municipality's policies on technology should be aligned with other policies and the digital strategy. IT policies still have restrictions towards who gets allocated technology tools, and connectivity and who does not. This was shared as one of the barriers necessitating L&D to transition. Internal policy and regulatory systems need to be amended to support the transition. The researcher's findings are aligned with Nciweni, Matsilele, & Abrahams (2023) highlighting the importance of policy and a step-by-step approach to digital transformation.

5.2.3 Operationalising Digital Transformation for L&D

Operationalising digital transformation considers various dimensions that go beyond understanding what new technologies to use rather addresses how to approach and implement well-defined transformation. For the L&D to succeed in its digital transformation journey it needs a clear understanding and strategic direction, that is learning and development industry-related roadmap. The DO framework guides what to consider and how to execute digital transformation.

On the question to establish whether the municipality has a digital strategy, about 19% of respondents confirmed that the municipality has a digital strategy in place. It was shared that the municipality established an office to drive digital initiatives known as the Chief Digital Office (CDO) which was mandated to develop the strategy. Furthermore, its provisions allow for

flexibility, agile adaptation, innovation, appropriateness and continuous digital learning improvements by individual units is valuable. However, despite the provisions, the strategy seems to have limitations addressing the questions of ‘what’ and ‘why’ in digital transformation but lacks clarity on the ‘how’ to embark on the transitioning journey. The extent to which the strategy has been implemented remains a concern. The insight is backed by the finding that 81% of the respondents are not aware of the strategy and even the existence of the CDO.

Notwithstanding the municipality’s digital strategy which necessitates individual business units to develop their roadmap to direct the digital transformation, there is no evidence of a blueprint guiding the unit in its transformational intent. Generally, the digital strategy as a roadmap or blueprint should outline ways to use technology to transform activities and business. Echeberria (2020) agrees that the digital transformation strategy should comprise of an operational framework, necessary to guide implementers and include actions, approaches and measures such as patterns for preparing internal plans, and tools for diagnostic purposes associated with the scoping assessment of digital maturity level. It is necessary to have an operational framework to guide the implementation of strategy and application of digital technologies to the business to improve process and systems performance towards the attainment of the goal. In summary, the strategy specifies the roadmap outlining necessary steps and actions to be taken to create a new competitive advantage. Even though the governance structure is supposedly in place its role is not clear and the committee itself is not adequately visible to guide individual units in their intent to transition. It would help the L&D unit to have a clear guide on the steps to be followed for initiating, planning, executing and monitoring learning and development of intended digital transformation initiatives.

While the L&D envisaged transforming at least 80% of its operations digitally, there is no clear direction as to where to start with the process. Further as shared above there is no empirical evidence that the business unit assessed its readiness before setting the target. The DO framework recommends going to market to understand what L&D is and would be offering and how offerings would reach customers. The operationalisation requires the L&D to understand what it intends to offer, change traditional offerings and introduce new opportunities to employees. Being entrusted

to empower and skill the municipality's workforce to enable them to perform to the expectations and above, L&D needs to transform physical offerings, processes and procedures to digitally drive new business models. However, it is appreciated that given the digital divide, and the complex and diverse nature of the municipality the L&D unit needs to consider the needs of a higher proportion of employees without the necessary technology tools. Therefore, transforming all offerings to digital can pose challenges rather it would be important to consider combining digital and traditional approaches meaning using blended methods. It is then important to have a roadmap that will serve as a blueprint for the preparedness and execution of the digital transformation. The roadmap will suggest activities to be implemented to inform the feasibility of attaining the intended goal of 80% transformation. Without it, the unit will still be lagging and be frustrated in adapting to change.

In getting views on digital initiatives in place, the majority of the respondents asserted that some units in the municipality are already ahead in modernising their business processes. Examples provided were the digitisation of SCM processes ranging from bid specifications publications for public access, electronic contract creation, and management system, and service payment processes. Other examples are the electronic service inquiries App, WhatsApp system, payment of municipal bills implemented by the revenue section, the recruitment and selection processes for learning and job opportunities, virtual collaborations, SharePoint, document management system, and automation (electronic) of signature at the executive level. Despite the unavailability of a clear direction, the L&D unit has also made strides to initiate some digital activities modernising some of its processes such as the introduction of virtual learning, virtual collaborations, and a document management system. Even though virtual learning is limited to only employees with access to technological tools and internet connectivity. Training is delivered in a hybrid mode to accommodate those who are still constrained by internal policies to have access to technology tools. Respondents 1,2,6 and 15 advocate for the business unit to invest in technology tools and capacity resources.

The DO framework recommends establishing or modifying structural arrangements to support digital transformation. Findings acknowledged that the existing L&D structure even for the IT

business units is no longer fit for digital purposes. Respondents 5 and 7 asserted that there is a need to change the structure and move with time as existing business unit structures across the municipality no longer support function, especially IT as they are an enabler, and need to enable businesses to do their work, smart and better. Respondent 7 agreed with Nwaiwu (2018) that for the L&D to succeed in the digital transformation it needs to have a dedicated section to coordinate digital initiatives and track emerging technologies, skills and innovations in learning and development. In addition to minimising any potential resistance to change understanding and addressing municipal and cultural issues is important.

Findings revealed a possible gap in communicating changes to customers, partners and employees. This was cited not as a L&D challenge but as the whole municipality. The example given was that the digital strategy is one of the important plans in the municipality but only very few are aware of it. Respondent 1 shared that the L&D unit needs to communicate with everyone advocating for change. Adopting new ways of conducting business L&D needs to engage with its customers, partners and internal employees. Employees where change is initiated are generally left behind, while the intent is to satisfy customers by creating new experiences and learning cultures, the change must begin within the L&D. The municipality has more communication platforms that can be used to promote L&D transformation. Municipality use internal systems to communicate with employees such as emails, social media has become a major tool adopted to reach out to internal and external customers. Consideration of the new generation of employees who are regarded as tech-savvy, continually connected, and familiar with technological developments is important. Communication with employees was mentioned not to be sufficient without the involvement and buy-in of management and leadership. Respondents 6 and 12 proposed traditional approaches such as running workshops, presentations and educational tours raising awareness to get the transformation message to employees.

5.2.4 Digital Transformation Capabilities & Resources

According to Lomas (2021) supported by Giannakos, Mikalef, & Pappas (2021), agree that effective digital transformation necessitates the right expertise, IT resources and direction to drive the process. Findings revealed limited skilled personnel which may hamper the ability of L&D to

drive toward remodeling the learning processes and systems. More emphasis was placed on the need to train and empower employees to prepare them for change.

Limited IT resources were also highlighted as a hurdle to transforming learning processes. Respondent 10 gave an example that, sometimes trainers would cancel or convert virtual training to face-to-face due to network and connectivity challenges and some employees have old laptops that are not functioning effectively. Despite the reasons of financial affordability to cater for technological tools to employees, the municipal IT policy was also mentioned to hinder access and allocation to digital tools and connectivity. For example, the IT policy was indicated to provide access to laptops only to management. Administrative positions below management are allocated desktops which are limited to active business collaborations and elearning. Respondents advocated for the increased budget allocation to ensure the provision of laptops, software applications, networks, data for connectivity, and upgrades to smartphones to necessitate digital e-learning and virtual learning.

5.2.5 Digital transformation Opportunities and Obstacles

Maremi, Thulare, & Herselman (2022) state that the benefits of digital transformation are enormous, however, the municipality's settings and context determine the scope. The potential drivers for digital transformation as viewed by many respondents concern technological advancement; improved service efficiency; enhanced offerings, capacity enhancement; and opportunity for cost savings. The technological advancement was considered as a benefit for added value proposition. The respondents cited that digital transformation can change how employees perceive the L&D positively if business processes and systems can be transformed to suit the needs of the individual employees and the municipality. Learning and development services can be performed effectively and efficiently resulting in improved productivity and performance. The modernization, automation, and integration of processes is an opportunity to streamline processes and adaptation, easy access to learning platforms, flexibility and agility. The L&D would experience continuous improvement and respond quickly to new developments. Another element is an opportunity to remodel offerings, introducing new programmes that are aligned with the knowledge, skills and competencies needed in this Industry 4.0 to secure new prospects. Another aspect mentioned was employee upskilling. Some respondents believed that digital transformation

brings a new set of skills, and employees would be required to be upskilled to cope with skills demands for the digital era. Respondents advocated for the training of L&D employees as well as IT and other relevant stakeholders playing critical roles in the learning and development environment in the municipality. Whereas the digital strategy for the municipality identified core digital skills as lacking, however, respondents saw it as an opportunity to enhance employees' skills and competencies required. The skilling of employees will improve the effective use of basic technology tools and enhance collaborations across the municipality. Generally, the transformational movement was affirmed to be an added advantage to improving overall learning and development services and products and is in line with the digital strategy of the municipality and thus is fully supported.

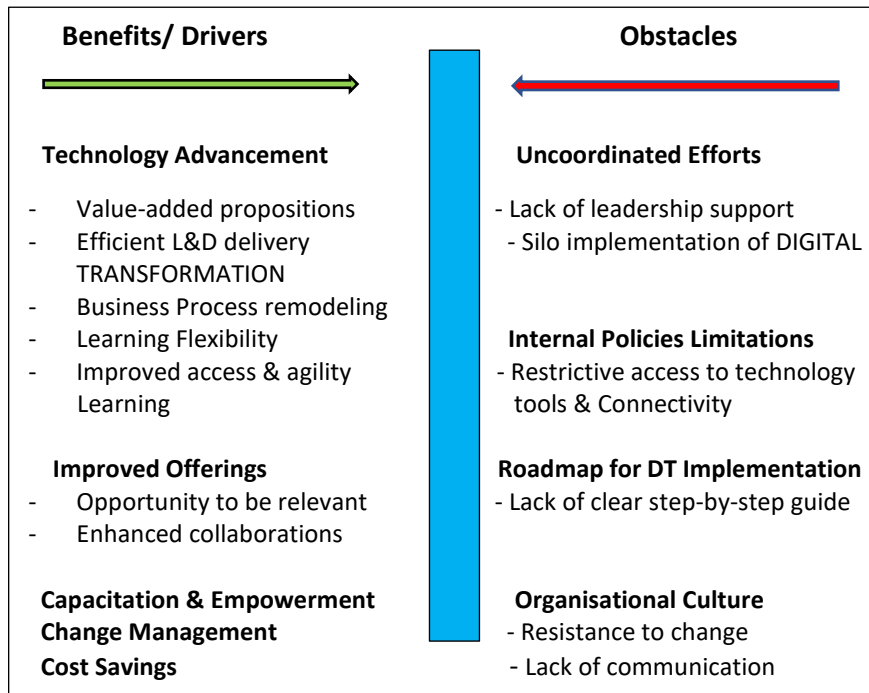
While advantages are appreciated, respondents were aware of potential obstacles raised as areas for consideration and mitigation strategies for L&D to succeed in its digital transitioning process. Aspects such as financial resources, access to technological tools and connectivity, alignment of internal policies, coordinated efforts, leadership and management involvement, addressing resistance to change and developing a communication strategy.

The financial resource was believed to be central to the transformation process. Nciweni, Matsilele, & Abrahams (2023) confirmed that the municipality should invest in the necessary infrastructure to see the benefits of digital transformation. Mikołajczyk (2022) advocates for digital tools supporting the acquisition of knowledge which are a hindrance in instances where there is restricted access.

Lack of governance and coordinated efforts was another element mentioned that could impact the streamlining and integration of initiatives across the municipality as well as within the L&D unit. The municipality's digital strategy also confirms the lack of coherence in digital initiatives. According to Lomas (2021), organisational culture and effective communication are important to executing digital transformation. L&D needs to communicate its digital transformation vision to all employees and recipients of training across the municipality, manage their expectations, and develop structured communication and engagement at all levels. This will provide a clear direction, address inconsistencies, guide actions and fuel L&D to reach transitional objectives of moving and remodeling learning and development processes, systems and products to digital format. Respondents believed that involving and encouraging L&D employees, recipients or customers of

training as well as partners is essential to get comfortable with the digital culture and change in mindset.

Figure 10. Summary of L&D Digital Transformation drivers and potential obstacles



5.2.6 Change Management

Respondents 2,5,8,9 and 12 advocated for the involvement of the change management unit (ODCM) in the municipality to assist with the transformation process. The reasons cited considered that the L&D digital transformation does only regard the use of digital tools, it concerns the potential entire shift of work approaches, patterns, and systems to organise, facilitate, deliver and monitor training initiatives in the municipality and for the possibly entire workforce to profile preferences and individual needs for enhancing efficiency and productivity. It entails changing the L&D value chain process on functionalities and new learning experiences and this requires a cohesive and integrated effort driven collectively by the change management, digital transformation office, IT and L&D business units. The finding supports Wade, Noronha, Macaulay, & Barbier, (2017) that all relevant stakeholders also need to be involved, to make the change as effective as possible. Change management terms of reference for the municipality

outline three phases guiding the change process which includes project stakeholder management, managing change, and reinforcing change. Stakeholder management is regarded as the most crucial aspect of change. It requires systematic identification, analysis, role clarification, collective planning and implementation of initiatives by stakeholders. Managing change involves the development of a change management plan which includes a communication and awareness plan, resistance management plan and training. Reinforcing change is when monitoring is effected, collection and analysis of feedback reflections, gaps identification, adjustment and mitigation solutions linked to resistance management and appreciation of the attainment of milestones.

5.3 Conclusion

In conclusion the reflection on the research question in terms of digital transformation understanding in the context of learning and development in the municipality, the respondents are aligned with philosophies on interpretations of digital transformation. Their interpretations show relevancy in terms of automation, and changing the process approach or the way employees are empowered through various learning interventions in the municipality.

The rationale for transforming learning processes and systems to digital format is consistent with the intent of digital transformation in terms of modernising business processes, competitiveness, efficient L&D delivery of products and services, empowered workforce and productivity improvement.

Despite the majority of respondents not being aware of the pre-assessment conducted, digital strategy, and learning management system, the L&D unit has made strides in migrating some of its services to digital format. Respondents are aware of what categories of learning and development need to be digitalised. The findings are also consistent with the DO framework which recommends the focus on key categories for change that include business model and processes, organisational structure, people, IT skills, courses or products and services offered by L&D, and engagements with stakeholders, customers and recipients of training.

There is also a greater appreciation of the municipality being a complex and diverse environment. Further, a consideration of potential obstacles such as lack of cohesiveness, capabilities, and

resources, however, respondents believed that involvement in change management would assist in the digital transformation process.

CHAPTER 6: Conclusion and Recommendation

6.1. Introduction

This section is intended to provide concluding opinions on the research question that was investigated. Concluding thoughts will be drawn from the data collected and recommendations will be made to aid the Learning and Development business unit in its journey toward digitally transforming learning and development business processes and systems to empower the municipal workforce effectively and efficiently.

The main research question tackled the perceptions of municipal employees towards digitally transforming learning and development business processes and systems. To address the main question, sub-questions were formulated. Firstly, to determine whether employees understood digital transformation drawing their views using the context of learning and development in the municipality. Secondly, to explore employees' perceptions on the rationale for transforming learning and development business processes and systems. The processes concerning the employee developmental cycle from assessing capability gaps, designing a learning plan which is a workplace skills plan (WSP), executing effectively, monitoring and measuring impact on individuals and municipality, and with the system institutionalising, integrating and aligning all components and learning technology applications with the municipal strategy. Thirdly, the research determines frameworks and digital activities implemented in the municipality and by the learning and development unit. Lastly, the research assessed the capabilities and resources existing and the gaps to support the digital journey. This would aid learning and development with a baseline model or approach to be considered to determine preparedness and overall understanding of their digital transformation undertaking. This is crucial because the learning and development core function supports the capacitation of employees to implement the municipality's IDP and SDBIP and therefore if it is digitally transformed it must be aligned to the municipality's strategy and overall priorities.

6.2. Conclusions of Findings

The research study employed a document review and semi-structured interviews for data collection. The data was analysed using a thematic approach. It was important to transcribe, select and clean data before it was converted into clear themes and actionable insights to derive significant and conclusive findings. Methods combined were very useful to provide in-depth insights and responses to research questions.

According to the study findings, municipal employees have an understanding of what it means to digitally transform learning and development activities, such as converting from the traditional approaches to automating processes to enhance the overall value proposition, and competitiveness in organising and designing, executing and management of learning initiatives in the municipality.

Transformation is supported by employees and the digital transformation strategy of the municipality, which provides for individual units to digitalise their business processes addressing contextual and environmental-related challenges and finding digital solutions to their problems. Even though the digital strategy is appreciated, based on the findings, only a few are aware of it and it is evident that more awareness creation is needed.

The DO digital transformation framework suggests that any institution considering transforming or remodeling its business process to digital formats is required to demonstrate a position of preparedness and respond explicitly and with agility addressing what, why and how in the transformation initiative. It is necessary to know what it needs to understand about digital learning and development in the municipal environment. Based on findings employees the ‘what’ and ‘why’ aspects of the transformation of learning and development activities are well understood, concerning the different areas of operations that L&D needs to address to conduct its transformation. However, it is evident from the research that there is still a need to undertake the audit or assessment to aid in the development of a framework mapping out specific activities for

execution addressing the question of how to reach the digital destination. The findings demonstrated some limitations and a lack of a step-by-step guide. The strategy seems to lack information on how individual units can navigate to digital transformation. The L&D unit needs to develop its guide informed by the baseline assessment and invest in resources and capabilities necessary to drive the transformation.

The inclusive transformational process is supported, where key stakeholders such as IT, DCO, HC and ODCM need to be involved to provide support and assist in unlocking any potential obstacles that might be encountered. This suggests that the L&D cannot do it alone it requires management and leadership to lead the process and bring on board key partners to aid and guide the transformation. The unit needs to create an ecosystem, to drive transformation seamlessly.

The L&D will also need to examine its structure or organisation to verify that it fits the transformation requirements. Changes may have an impact on job capabilities and new opportunities may arise, allowing employees to advance in their careers. It is important to select a capable team dedicated to managing the transition.

Communication is foundational for L&D to understand the needs, expectations and concerns of its customers, partners and employees. Employees, for example, may be interested in learning how the digital transformation will affect their jobs, capabilities and workflows. Customers and partners may want to know how it will enhance the customer experience and value proposition while also improving efficiency, productivity and overall performance. Therefore, as previously mentioned, L&D needs to conduct thorough research to inform the anticipated change. The baseline assessment will ensure that transformation is tailored to meet contextual needs and expectations.

The L&D needs to recognise limitations posed by the municipality's systems, policies on IT and capabilities. To be successful it should be appreciated that verbal instruction to digital

transformation is insufficient on its own. It takes extensive research to assess the level of preparations, communication, operational demands, and proper organisation.

To further conclude the L&D unit requires a comprehensive approach to transform various processes and systems, i.e., parts of the learning and development value chain. The adoption of a DO framework that is linked with the municipal-wide strategy will be critical in serving as a blueprint and guide for leveraging the uptake and integration of digital formats. The establishment of an ecosystem will allow municipal policies to be properly aligned and synchronise with systems resulting in a smooth transition.

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Appendices

Appendix 1: Consent Form

TOWARDS DIGITAL TRANSFORMATION OF LEARNING AND DEVELOPMENT BUSINESS PROCESSES AND SYSTEMS FOR THE ETHEKWINI MUNICIPALITY

CONSENT FORM

I,, agree to participate in this research project.

I agree to the following (*Please circle the relevant options below*):

The research study was explained to me. I understand what this study is all about.	YES	NO
--	-----	----

I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason and without cost.	YES	NO
---	-----	----

I agree that my participation will remain anonymous (my name will not be used)	YES	NO
--	-----	----

I agree that direct quotations from my interview may be used by the researcher in their research report	YES	NO
---	-----	----

I agree that the interview may be audio/ video recorded	YES	NO
---	-----	----

I agree that other researchers may use the information I provide in my interview (depending on their own ethics clearance being obtained) but my name and any personal information will not be used or passed on	YES	NO
--	-----	----

Signature:

Participant Name.....

Date

Signature.....

Researcher Name

Date.....

Appendix 2: Participant's Information Sheet

TOWARDS DIGITAL TRANSFORMATION OF LEARNING AND DEVELOPMENT BUSINESS PROCESSES AND SYSTEMS FOR THE ETHEKWINI MUNICIPALITY

Primary Researcher

Name: Puleng Ngubane
Contact: 031 311 3192
Email: 2492934@students.wits.ac.za

You are kindly requested to take part in this research study. However, before deciding to participate in this study, you should understand why the research is being conducted and what it would entail. Please read the following information carefully. If anything is unclear or you require additional information, you are welcome to ask the researcher for clarification.

The purpose of this study is to investigate municipal employees' perceptions around transforming training and development business operational processes and systems to digitalization.

The study will include conducting interviews and focus group discussions with identified employees in various categories such as line managers, training beneficiaries, training coordinators, training facilitators, and ICT technical support staff. The researcher will visit the participants' places and if possible, use virtual platforms. The information gathered will be recorded and analysed. The findings will be shared with the Municipality.

Individual interview sessions are expected to last approximately 45-60 minutes per person. Exceptions will be allowed when focus groups are held to accommodate all participants' contributions. Audio recording may occur; however, approval will be obtained before.

The risk level anticipated is low regarding your participation in the study. You may decline to answer any or all questions and you may withdraw from participating at any moment.

The research is expected to help the Municipal Academy understand digital transformation, and factors for consideration in its attempt to transition to digital formats and contribute or serve as a guide or blueprint to digitalization. There will be no reward for participating in this study. However, we expect that the information obtained from this study through your involvement will greatly aid the business unit in understanding its customers' needs and ensuring that the transformation and interventions implemented are responsive, suitable, and relevant.

Your responses to this interview will remain anonymous. Please do not include any identifying information in your responses. For this research study, your comments will not be anonymous. The researcher will make every effort to safeguard your confidentiality including the following:

- Assigning participant code names and numbers used in research notes and documents
- Keeping notes, interview transcriptions, and any other identifying participant information in a locked file cabinet in the personal possession of the researcher.

Participant data will be kept confidential except in cases where the researcher is legally obligated to report specific incidents. For instance, if you inform the researcher that you or someone else is at risk of harm, the researcher may have to report it to the relevant authorities. However, this will be discussed with you first.

Should you have questions regarding this study or experience any harmful effects as a result of participating in this study, please contact the researcher whose contact information is provided on the first page. If you have any queries or concerns about your rights as a participant, please contact the Wits School of Governance at

Your participation in this study is entirely voluntary. If you decide to take part in this study, you will be asked to sign a consent form, you may withdraw at any moment and without giving a reason.

I have read and understood the information provided and have had the opportunity to ask questions.

Participant's signature _____ Date _____

Researcher's signature _____ Date _____

Appendix 3: Ethics Clearance Certificate



SCHOOL OF GOVERNANCE ETHICS COMMITTEE

CONSTITUTED UNDER THE UNIVERSITY HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)

CLEARANCE CERTIFICATE WSG-2022-46

PROJECT TITLE: Towards Digital Transformation of training and Development Business Processes and Systems for the EThekweni Municipality LITY

INVESTIGATOR Millicent Puleng Ngubane

SCHOOL/DEPARTMENT OF INVESTIGATOR School of Governance

DATE CONSIDERED 24 September 2022

DECISION OF THE COMMITTEE Approved unconditionally

RISK LEVEL Minimal Risk

EXPIRY DATE Date of submission of the project Research Report

ISSUE DATE OF CERTIFICATE 24 September 2022

CHAIRPERSON Rekgotsotse Chikane
Rekgotsotse Chikane

cc: Supervisor:

DECLARATION OF INVESTIGATOR

To be completed in duplicate and **ONE COPY** returned to the Chairperson of the School/Department ethics committee.

I fully understand the conditions under which I am authorized to carry out the abovementioned research and I guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee.



Signature

24 / 09 / 2022
Date

Appendix 4: Sample of Interview Schedule

TOWARD DIGITAL TRANSFORMATION OF LEARNING AND DEVELOPMENT BUSINESS PROCESSES AND SYSTEMS

SEMI-STRUCTURED INTERVIEWS:
Notes: This guide comprises of open-ended and less formal set of questions; this was intended to be an interactive interview engagement held in any preferred mode (e.g., face-to-face or virtual). Procedure: Kindly share as many details as you possibly can. There is no wrong answer, your independent opinion is of essence to the study. It would be appreciated if you could provide detailed expressive responses with examples to illustrate your point. <i>Kindly describe your role about learning and development within the municipality:</i> ***Kindly refer to below for specific questions requiring your opinion:

Management of Learning and Development

Question 1: Digital Transformation (DT) has become a global phenomenon, different organizations and individuals have varying thoughts or interpretations around its connotation.

What is your understanding of digital transformation (DT) in the context of learning and development operations? How can you define digital transformation in learning and development?

Question 2: Opportunities for change depend on effective execution, which includes knowing what you want and why that is needed, to have a clear strategy, new business operations, IT capabilities, and systems as well as resources.

2.1 Why do you believe there is a need for transformation? Or what is the motivation to transform L&D processes to digital formats?

2.2 What aspects of L&D operations need to be transformed?

2.3 What digital transformative initiatives and governance systems are in place to assist the Learning and Development Unit in changing its operational processes, systems, and products?

2.4 In your opinion, what processes are or should be in place to effectively implement digital transformation by the municipality's L&D section?

2.5 What are the key resources and capabilities required for a successful digital transition?

2.6 How would change benefit the Academy?

Question 3: Re-engineering successful operational business processes and systems may necessitate changes to the structure, culture, ethos, governance and so on.

3.1 How is the Academy structured/ arranged or should the Academy structure or organize itself to effectively embrace and execute DT?

3.2 How would you motivate the team to embrace change?

Question 4: Engagement and contact with the stakeholders are crucial during the change process.

How would you advise reaching out to your customers, partners, and employees to ensure that they are involved in the process and understand the conversions?

Any additional information will be appreciated:

Thank you very much for participating and taking the time to share your thoughts.

Appendix 5: Letter of Research Study Support



POD 7, GROUND FLOOR, INTUTHUKO JUNCTION, 750 MARY THIPHE STREET, UMKHUMBANE, CATO MANOR, DURBAN 4001
TEL: 031 322 4513, FAX: 031 261 3405, FAX TO EMAIL: 086 265 7160, EMAIL: MILE@DURBAN.GOV.ZA, WEBSITE: WWW.MILE.ORG.ZA

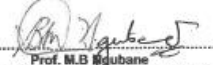
For attention:
Chair of Research Ethics Committee
Wits School of Governance
University of Witwatersrand
Johannesburg
2050
7 October 2022

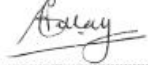
RE: LETTER OF SUPPORT TO M.P NGUBANE, STUDENT NO. 2492934 - GRANTING PERMISSION TO USE ETHEKWINI MUNICIPALITY AS A STUDY SITE

The eThekweni Municipal Academy and Municipal Institute of Learning (MILE) in eThekweni Municipality, have considered a request from **Millicent Puleng Ngubane** (Ms) to use eThekweni Municipality as a research study site leading to the awarding of a **Master of Management** and for the purposes of undertaking a research study entitled: **"TOWARDS DIGITALIZATION TRAINING AND DEVELOPMENT BUSINESS PROCESSES AND SYSTEMS FOR THE ETHEKWINI MUNICIPALITY."**

We wish to inform you of the acceptance of her request and hereby assure her of our utmost cooperation towards achieving her academic goals; the outcome which we believe may help this municipality in the area of digital transformation. The student is reminded of the ethical considerations and the Disaster Management Act, Act 2020 regulations when conducting this research. The student must take all necessary measures to ensure her personal safety during the research period as eThekweni Municipality indemnifies itself from any incidental claims that may arise. **In return, we stipulate as mandatory that the student contacts Dr Collin Pillay to present the preliminary results and recommendations of this study to the related units.**

Wishing the student all the best in her studies.


Prof. M.B. Ngubane
Head: eThekweni Municipal Academy
eThekweni Municipality


Dr. Collin Pillay
Program Manager: MILE
eThekweni Municipality

I, **Millicent Puleng Ngubane**..... hereby accept as mandatory that I will comply fully as per the conditions stipulated above.

Signed:  Date: **10/10/2022**